Core analyses of the Shell Oil Company OCS Y-0197-1 (Tern Island No. 3) well (12,977.25'-13,221.35'); which includes permeability and porosity data, mercury injection capillary pressure data, X-ray diffraction data, sample photographs, petrographic thin-section photographs, and SEM photographs.

Created February 2007

Total of 41 pages in report plus original data CD

Alaska Geologic Materials Center Data Report No. 338

OMNI Laboratories, Inc.

6-22-06

SUMMARY OF ROUTINE CORE ANALYSES RESULTS

Vacuum Dried at 180°F Net Confining Stress: 800 psi

BP Alaska
TERN3 OCS-Y-197 Well

Alaska
File: H-35309

Core Number	Sample Number	Sample Depth, feet	Permeability, millidarcys		Porosity, percent		Grain Density, gm/cc
			to Air	Klinkenberg	Ambient	800 psi	
1	1	12977.25	144.	130.	17.5	17.5	2.63
1	2	12979.85	144.	130.	17.8	17.8	2.64
1	3	12989.30	258.	237.	19.3	19.2	2.63
1	4	13174.00	1980.	1900.	21.9	21.8	2.64
1	5	13176.55	2640.	2550.	23.7	23.6	2.64
1	6	13177.80	1820.	1740.	21.8	21.6	2.64
1	7	13182.90	1930.	1860.	19.5	19.3	2.64
1	8	13187.85	1330.	1270.	21.4	21.3	2.63
1	9	13216.55	8960.	8770.	23.6	23.4	2.63
1	10	13221.35	1990.	1920.	20.8	20.8	2.64
		Average values:	2120.	2050.	20.7	20.6	2.64

OMNI Laboratories, Inc.

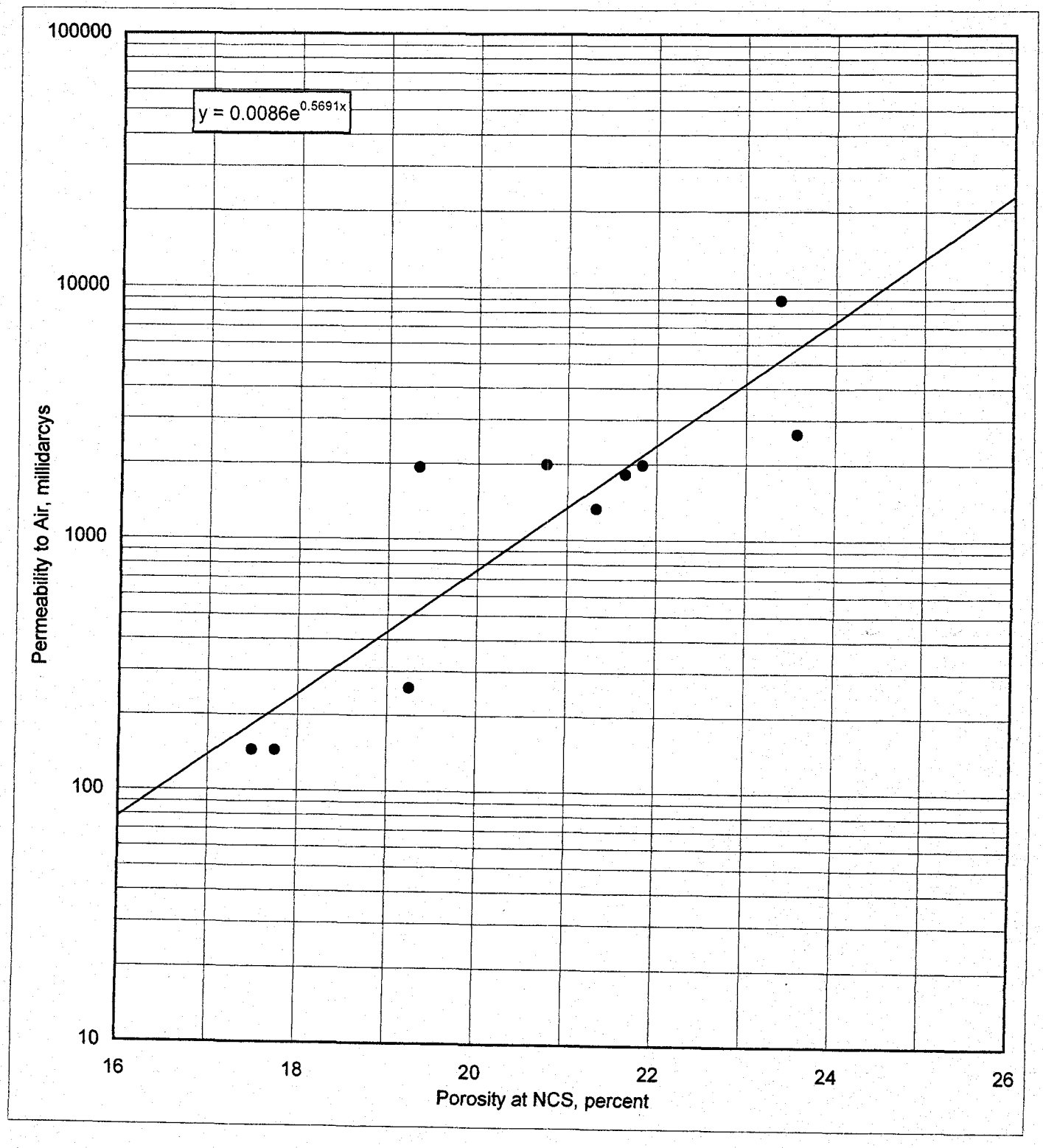
6-22-06

PERMEABILITY VERSUS POROSITY

Vacuum Dried at 180°F Net Confining Stress: 800 psi

BP Alaska
TERN3 OCS-Y-197 Well

Alaska
File: H-35309



OMNI Laboratories, Inc.

SUMMARY OF MERCURY INJECTION TEST RESULTS

BP Alaska
TERN3 OCS-Y-197 Well

Alaska
File: H-35309

Sample Number	Sample Depth, feet	Permeability to Air, millidarcys		Porosity, fraction		Grain Density, grams/cc		Median Pore Throat Radius, microns	Fluid Saturation at 200 psi Equivalent Gas-Water Capillary Pressure, fraction pore space
		plug	Hg Inj*	plug	Hg Inj	Helium	Hg Inj		
1	12977.25	144.	135.	0.175	0.179	2.63	2.63	6.31	0.032
2	12979.85	144.	140.	0.178	0.178	2.64	2.63	6.62	0.044
3	12989.30	258.	249.	0.193	0.191	2.63	2.63	8.62	0.037
4	13174.00	1980.	1030.	0.219	0.215	2.64	2.64	17.62	0.032
5	13176.55	2640.	1680.	0.237	0.235	2.64	2.62	21.66	0.031
6	13177.80	1820.	1230.	0.218	0.215	2.64	2.64	19.64	0.035
7	13182.90	1930.	813.	0.195	0.200	2.64	2.65	12.18	0.039
8	13187.85	1330.	977.	0.214	0.211	2.63	2.63	16.65	0.028
9	13216.55	8960.	4490.	0.236	0.236	2.63	2.63	38.49	0.013
10	13221.35	1990.	1350.	0.208	0.205	2.64	2.64	21.81	0.031

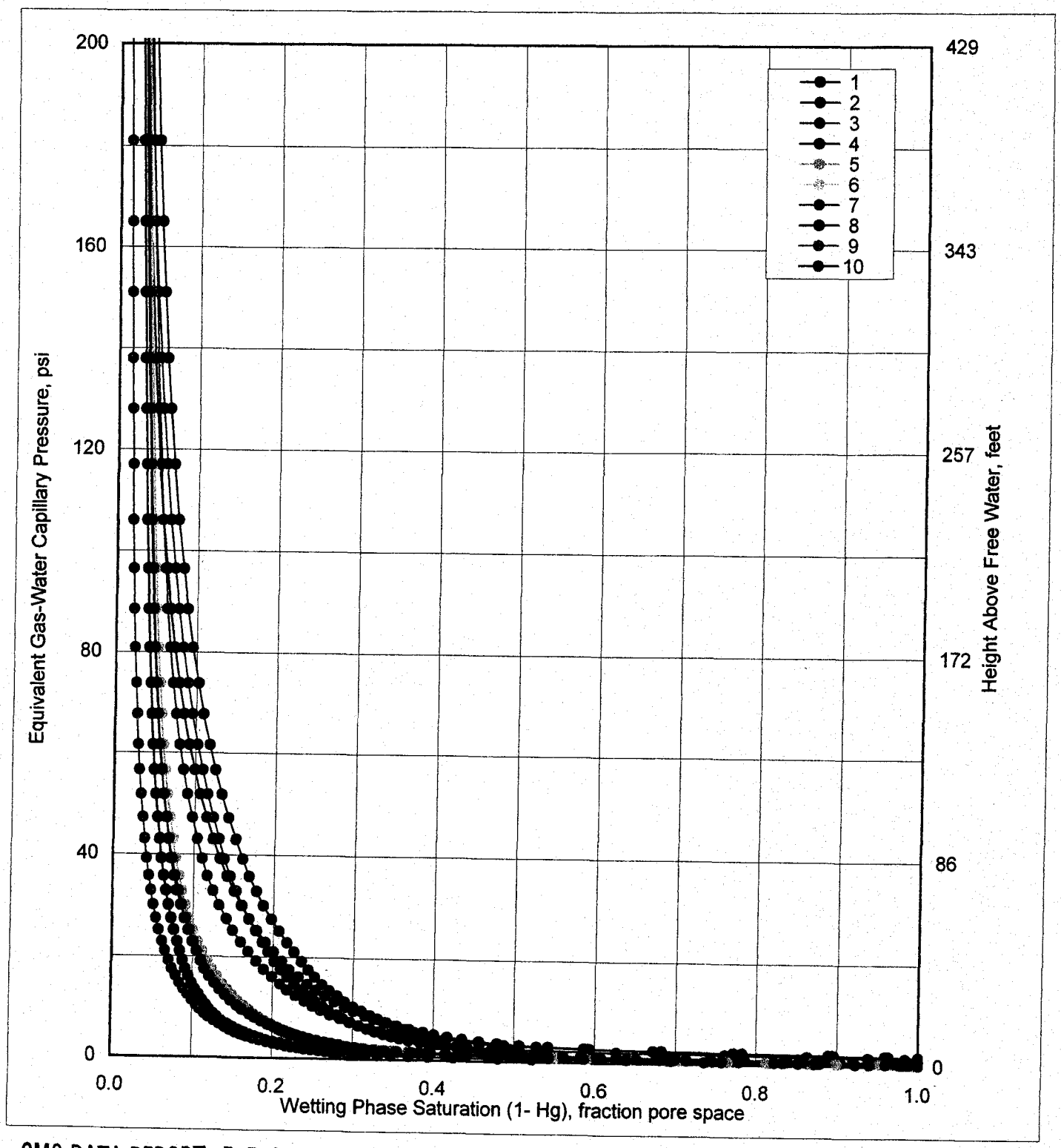
* Calculated from mercury injection data per SPE paper 8234

OMNI Laboratories, Inc.

EQUIVALENT GAS - WATER CAPILLARY PRESSURE

BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

Composite of All Samples



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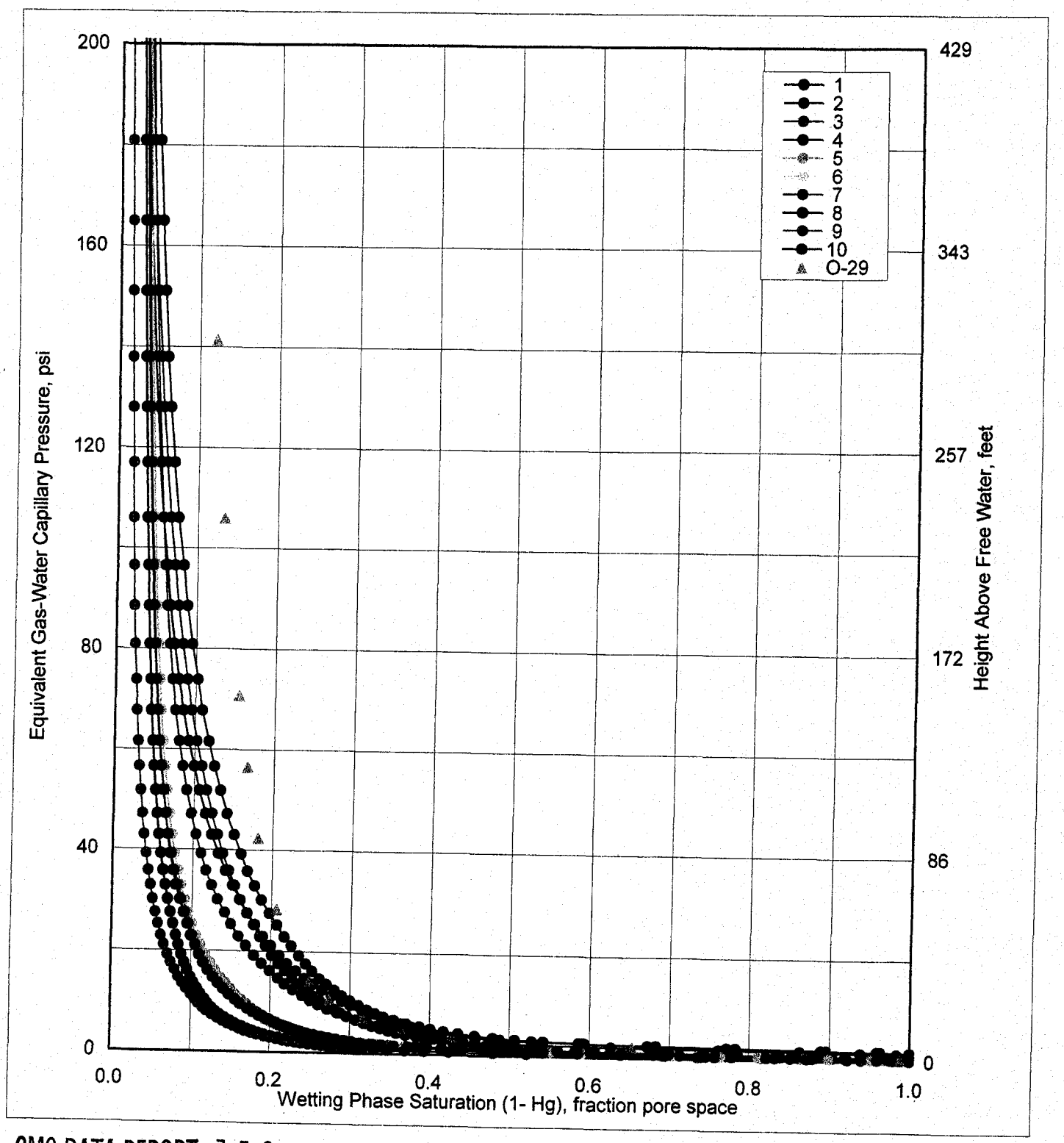
7-7-06

EQUIVALENT GAS - WATER CAPILLARY PRESSURE

BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

Composite of All Samples



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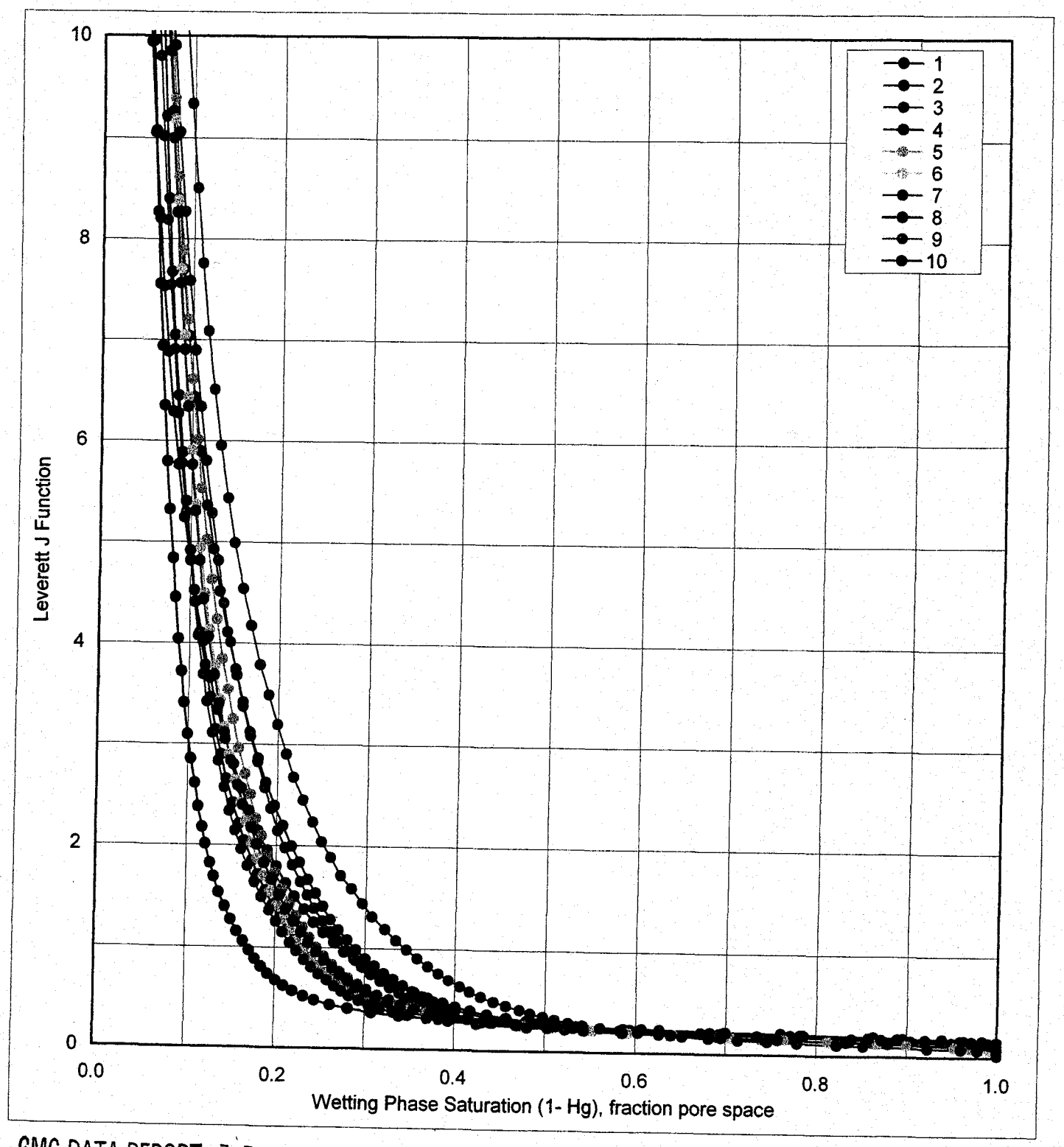
7-7-06

LEVERETT J FUNCTION

BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

Composite of All Samples



GMC DATA REPORT 3 3 8

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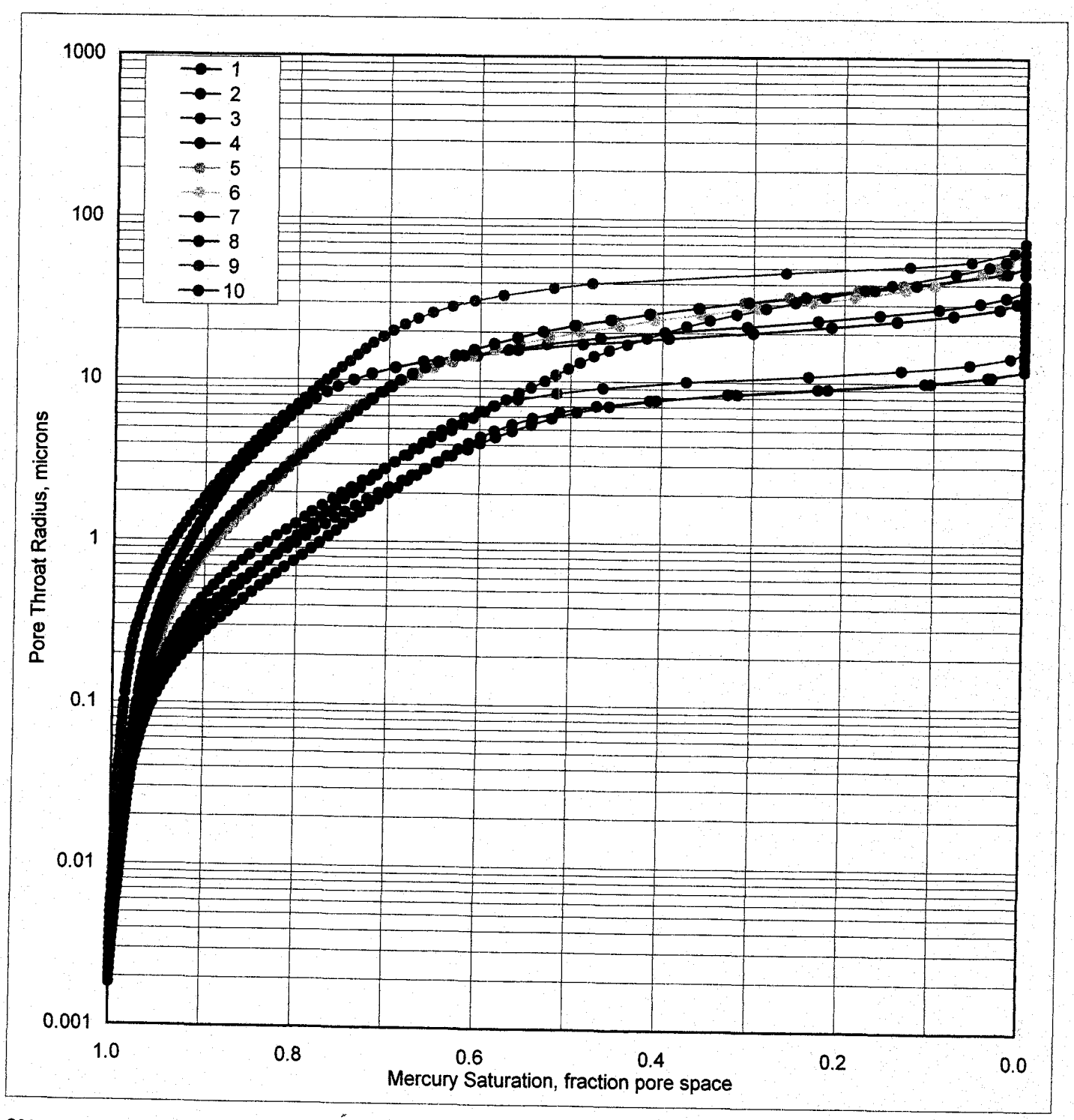
PORE THROAT RADII

BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

Composite of All Samples



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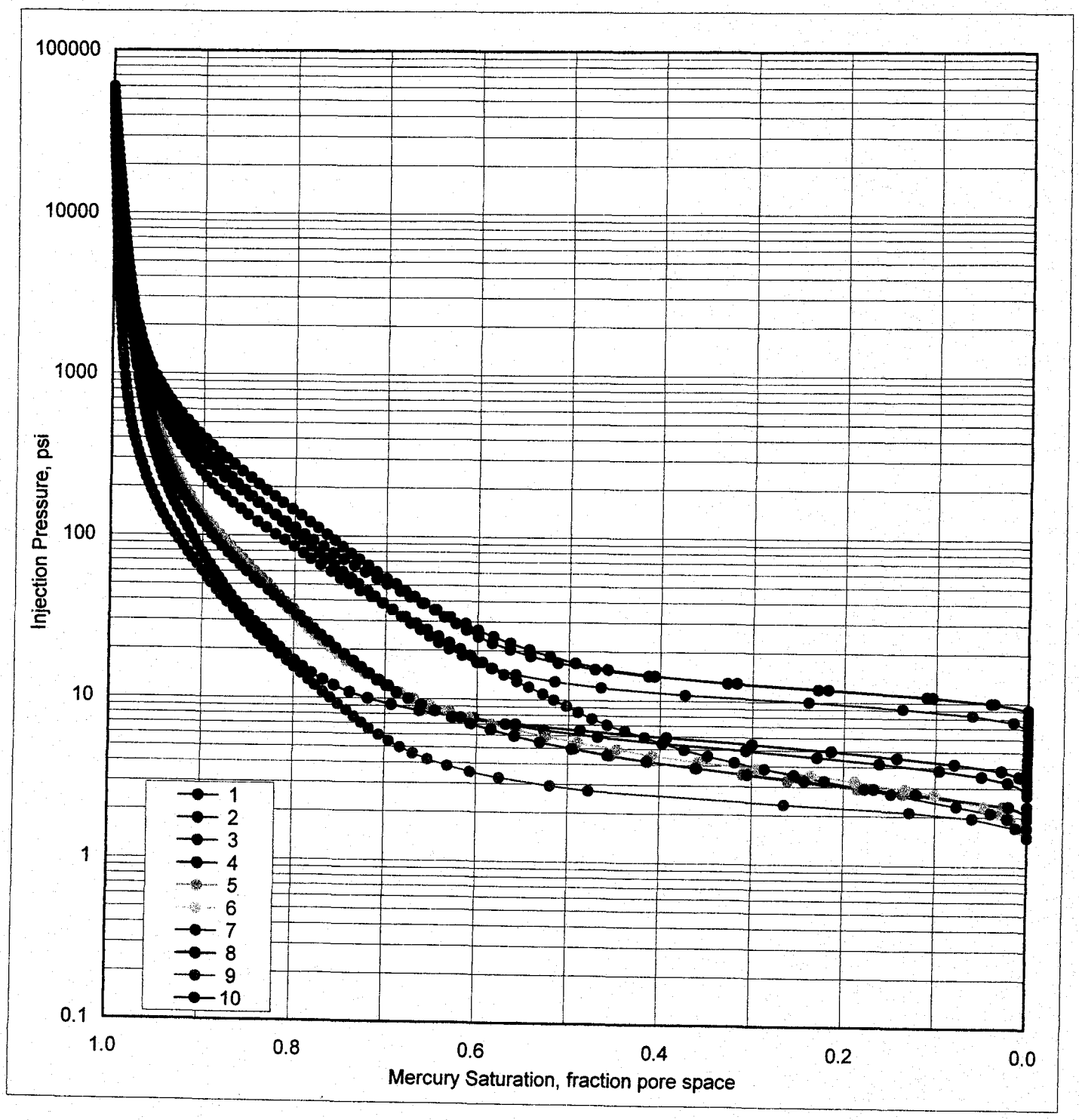
MERCURY INJECTION CAPILLARY PRESSURE

BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

Composite of All Samples



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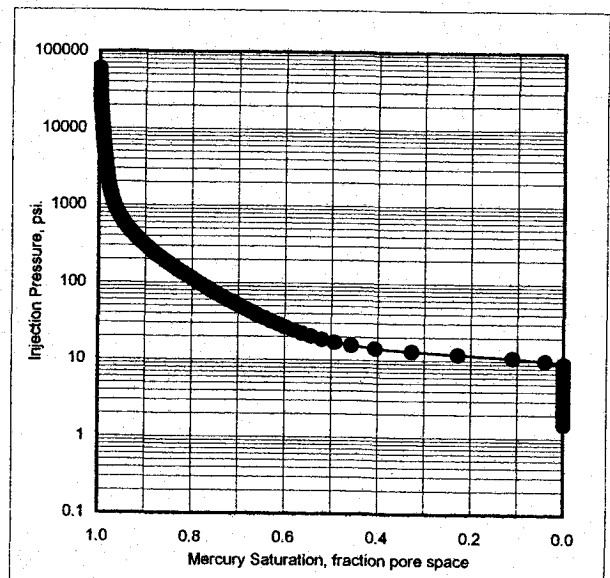
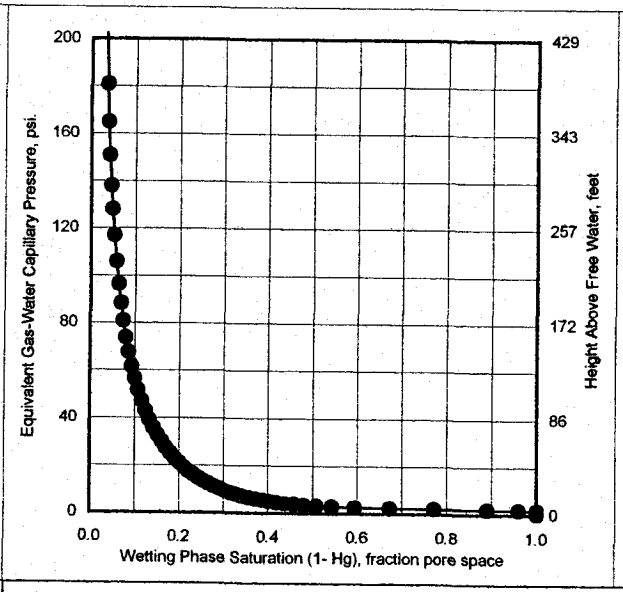
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

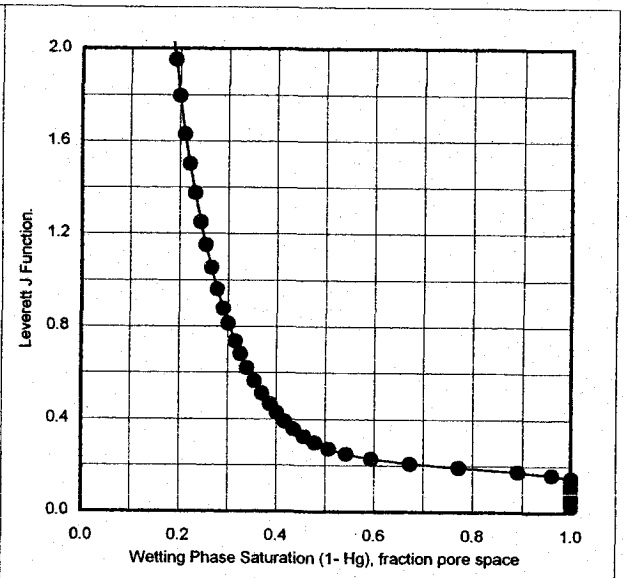
MERCURY INJECTION CAPILLARY PRESSURE

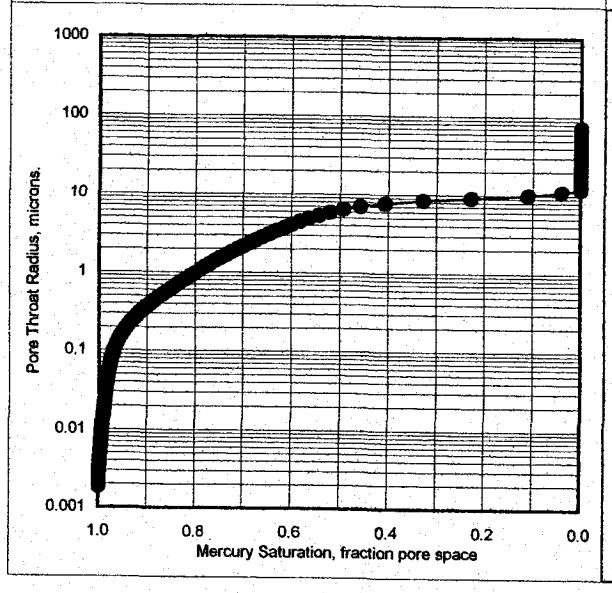
7-07-06

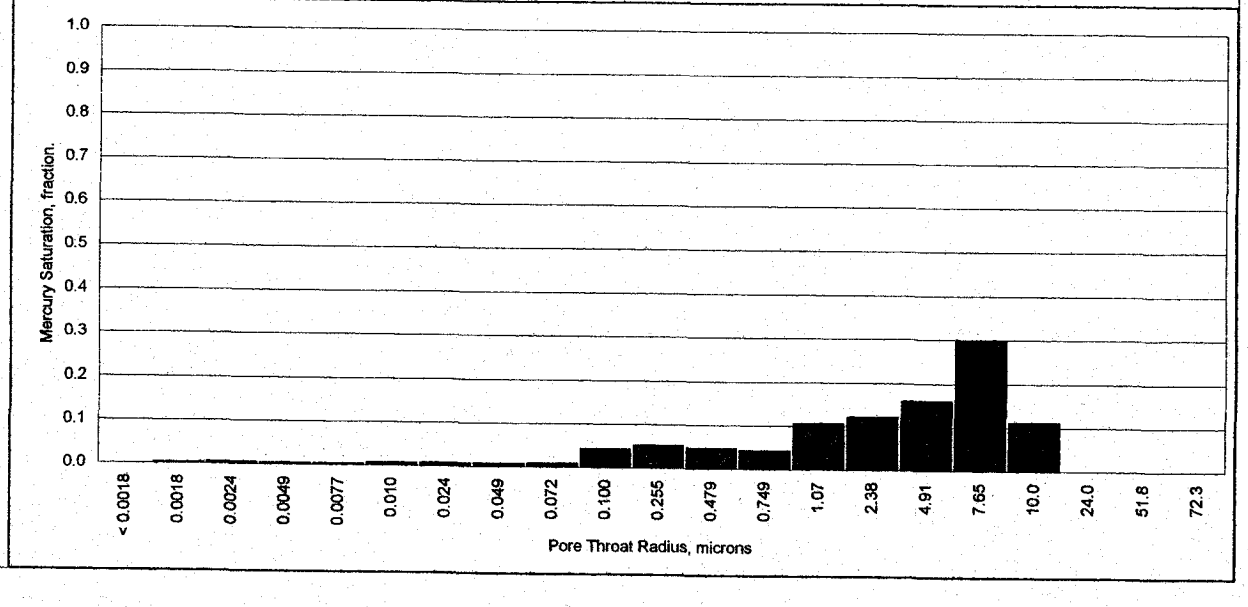
Sample Number:	1
Sample Depth, feet:	12977.25
Permeability to Air (calc), md:	135.
Porosity, fraction:	0.179
Grain Density, grams/cc:	2.63
Median Pore Throat Radius, microns:	6.31











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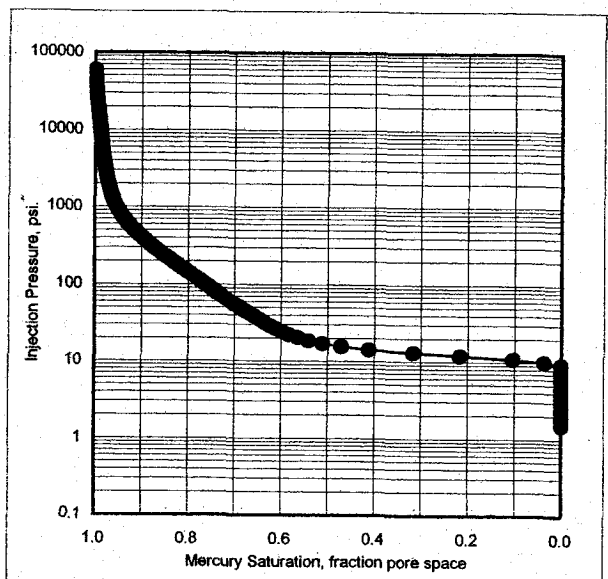
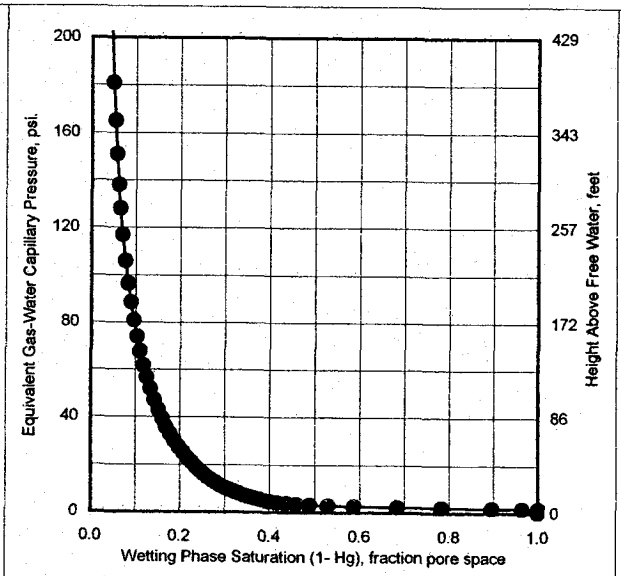
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

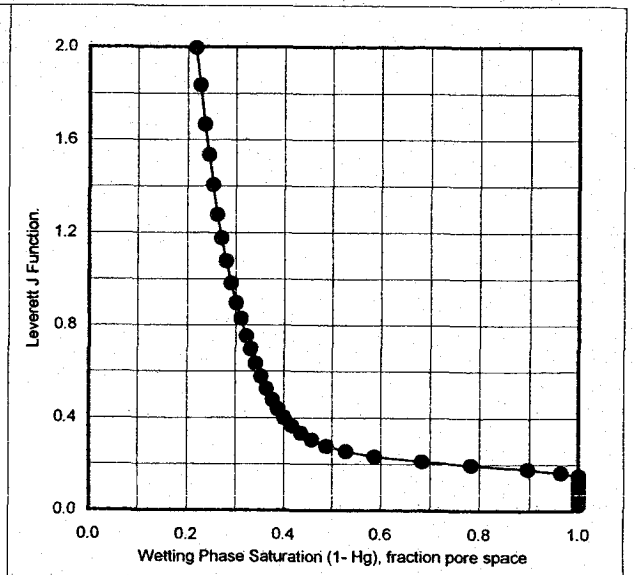
MERCURY INJECTION CAPILLARY PRESSURE

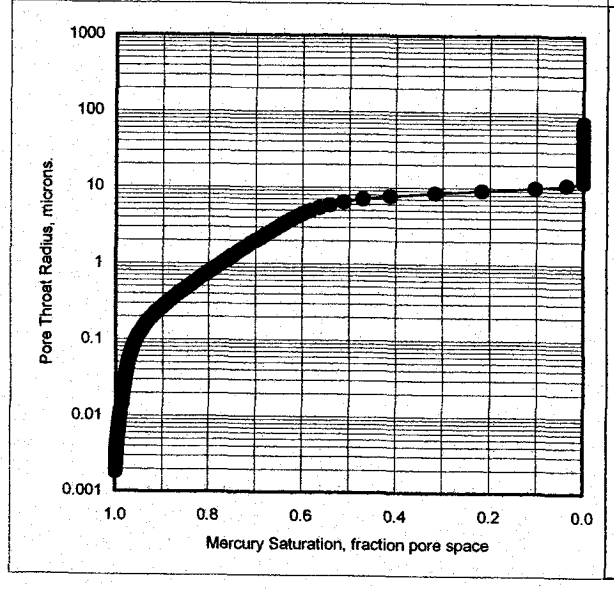
7-07-06

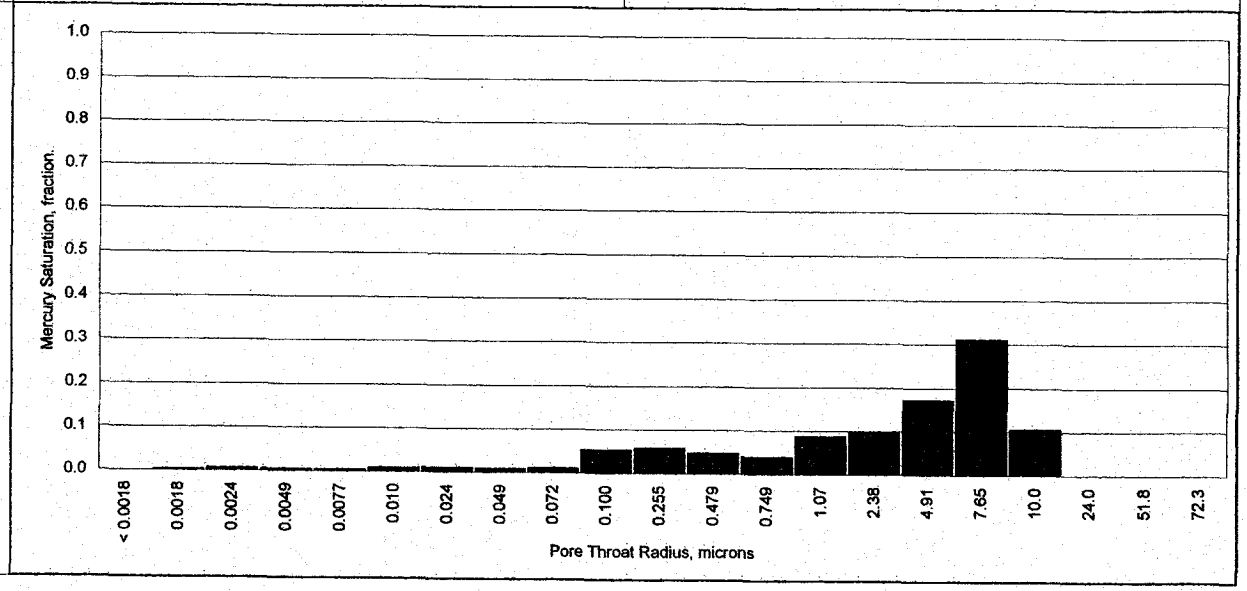
Sample Number:	2
Sample Depth, feet:	12979.85
Permeability to Air (calc), md:	140.
Porosity, fraction:	0.178
Grain Density, grams/cc:	2.63
Median Pore Throat Radius, microns:	6.62











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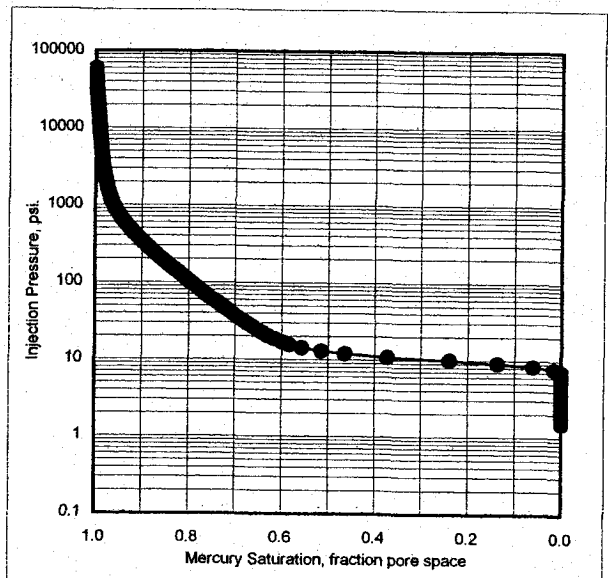
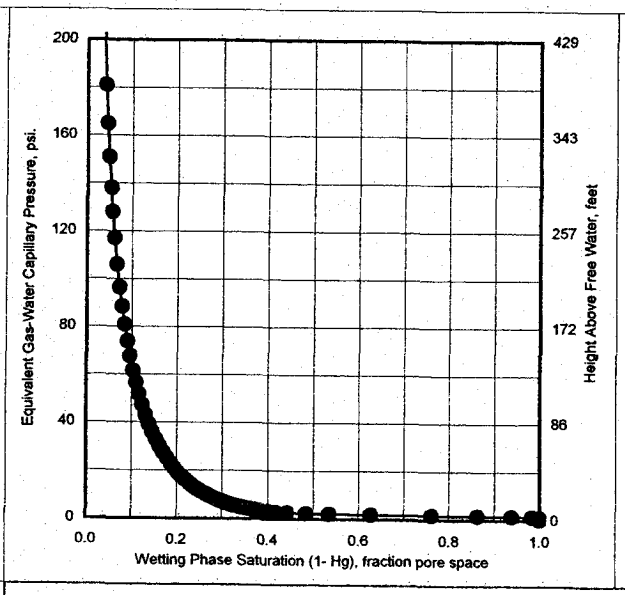
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

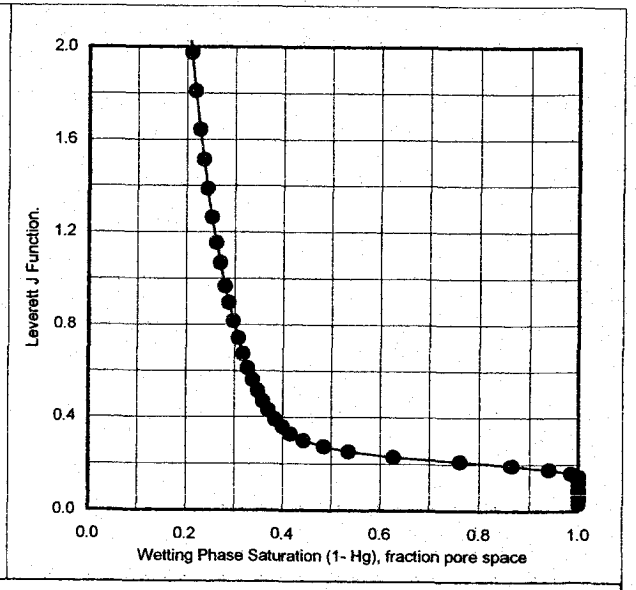
MERCURY INJECTION CAPILLARY PRESSURE

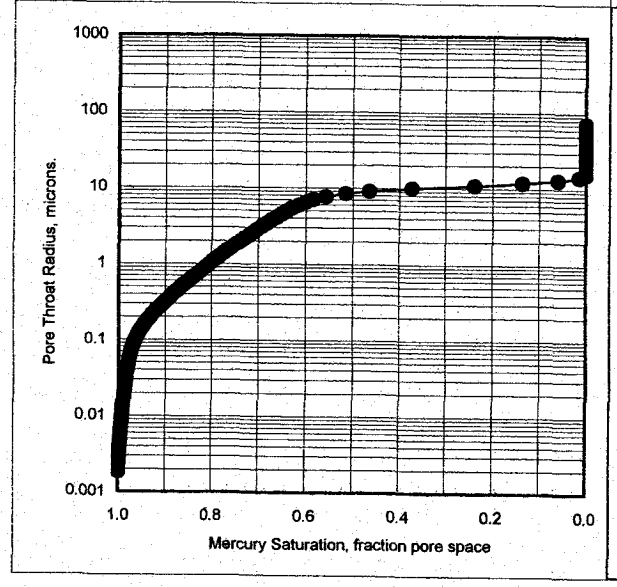
7-07-06

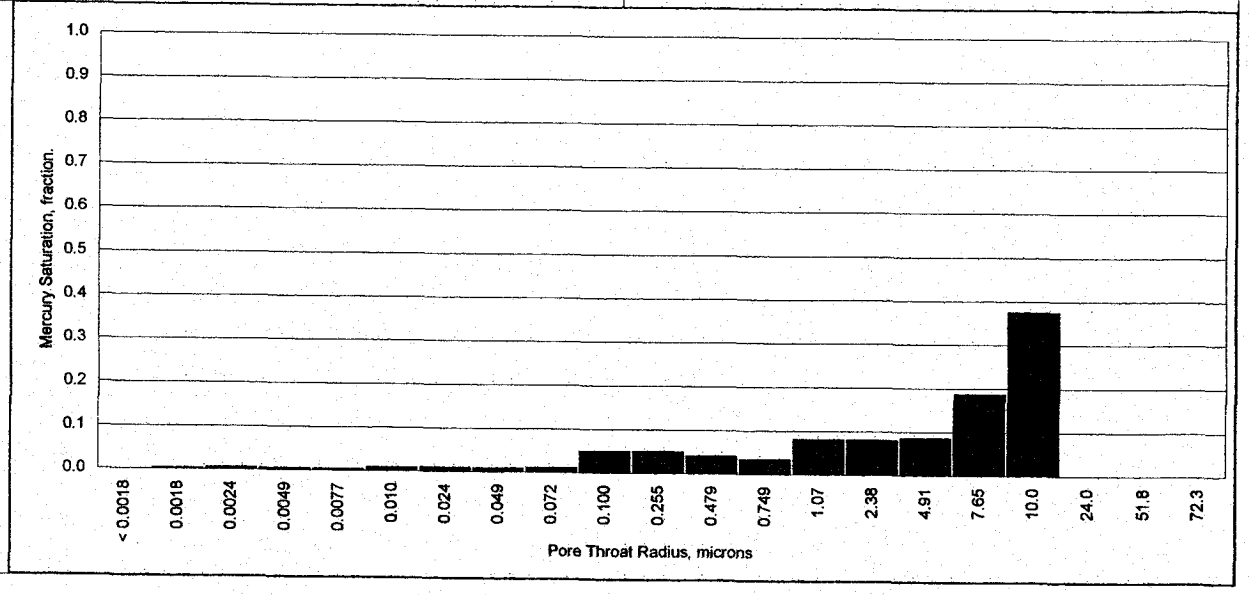
Sample Number:	3
Sample Depth, feet:	12989.30
Permeability to Air (calc), md:	249.
Porosity, fraction:	0.191
Grain Density, grams/cc:	2.63
Median Pore Throat Radius, microns:	8.62











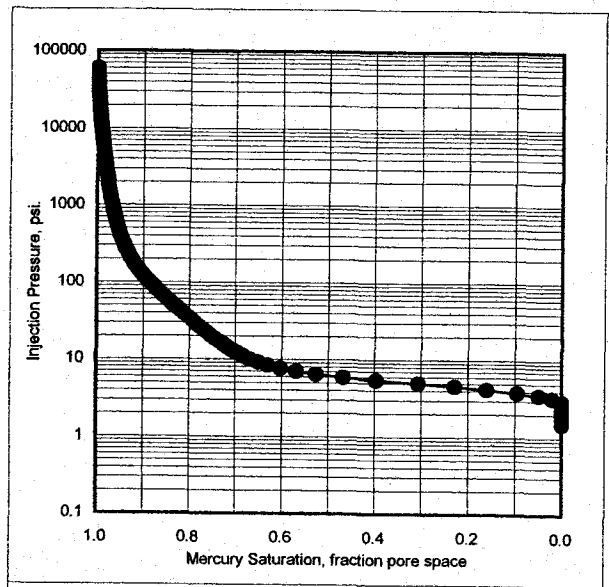
OMNI Laboratories, Inc.

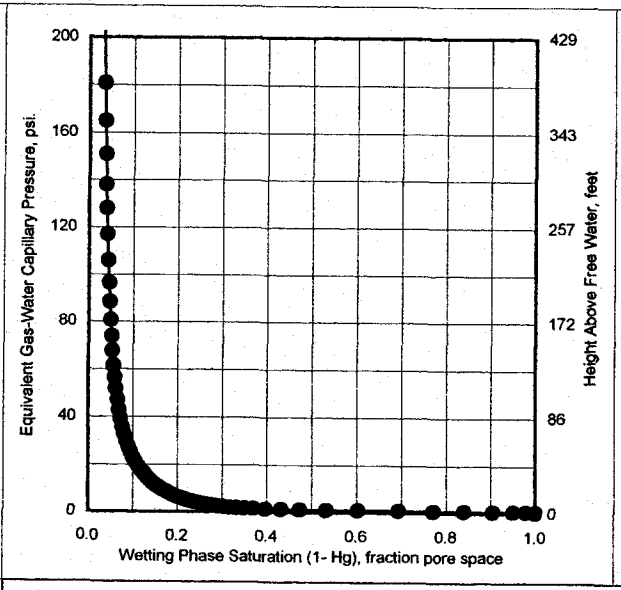
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

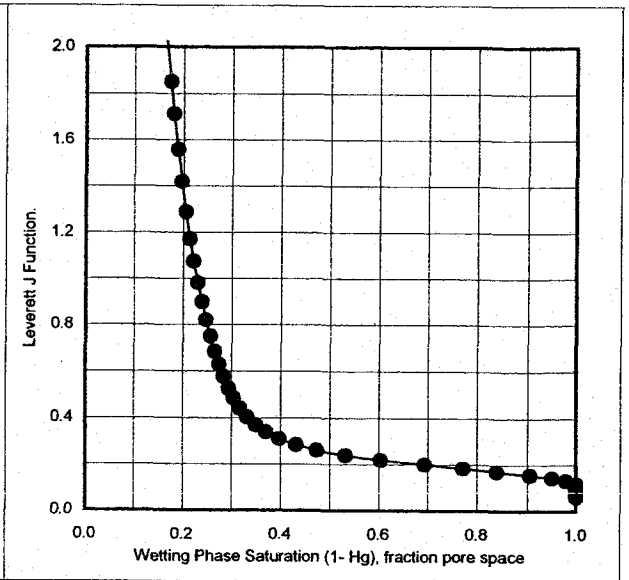
MERCURY INJECTION CAPILLARY PRESSURE

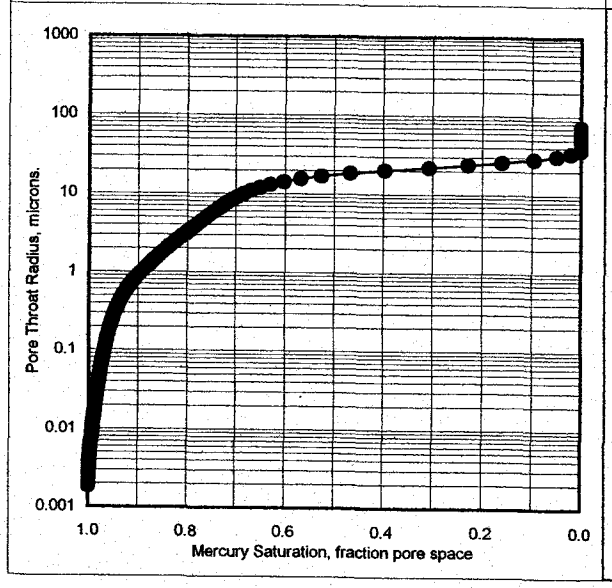
7-07-06

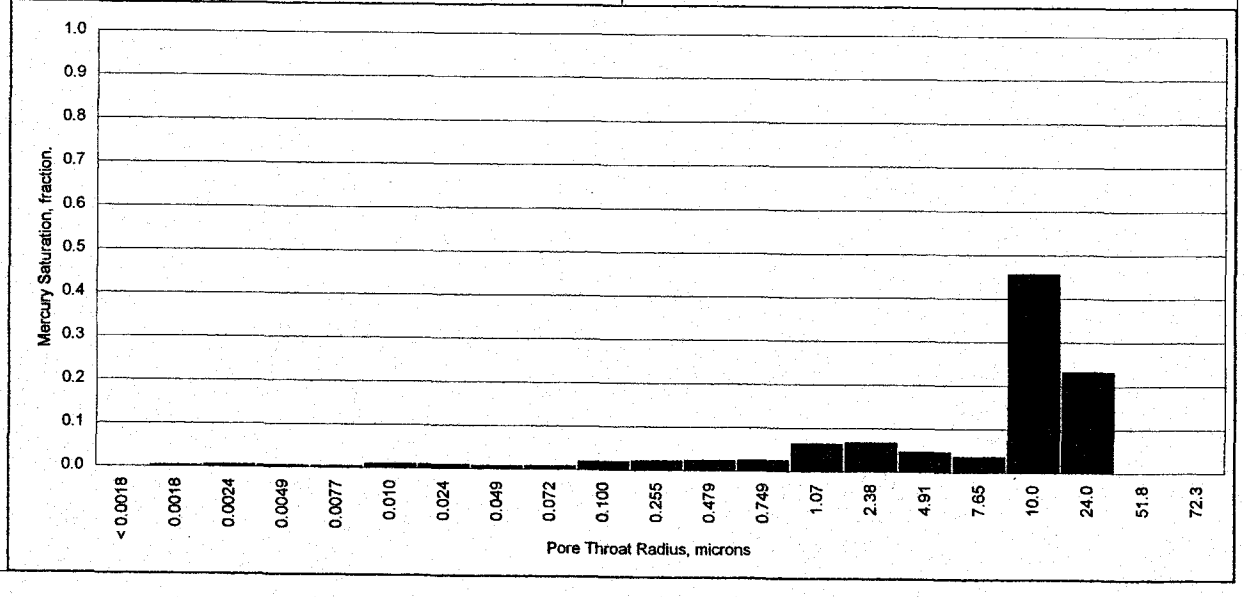
Sample Number:	4
Sample Depth, feet:	13174.00
Permeability to Air (calc), md:	1030.
Porosity, fraction:	0.215
Grain Density, grams/cc:	2.64
Median Pore Throat Radius, microns:	17.62











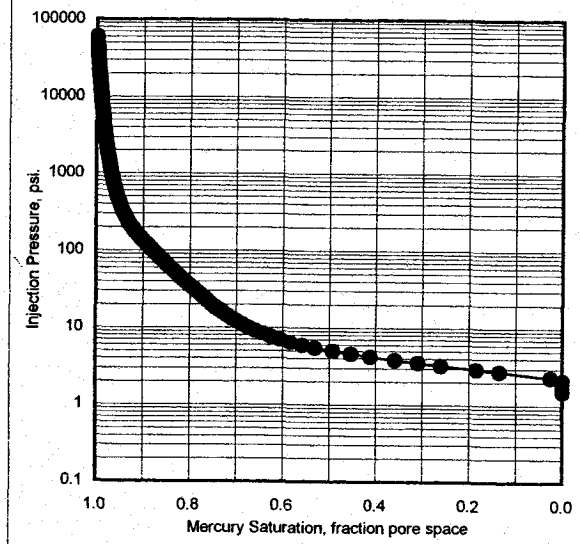
OMNI Laboratories, Inc.

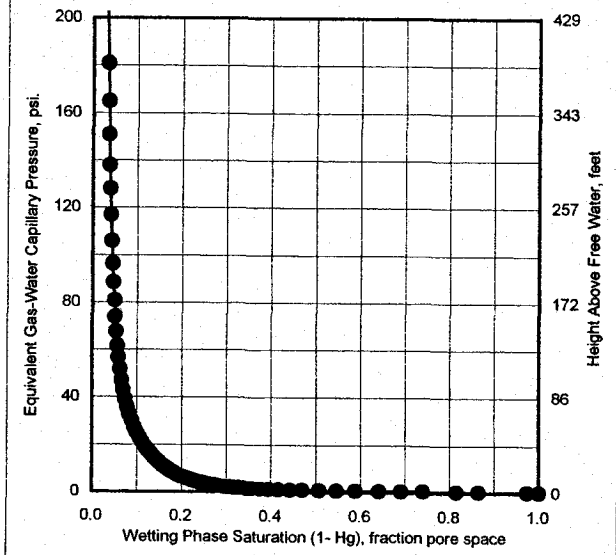
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

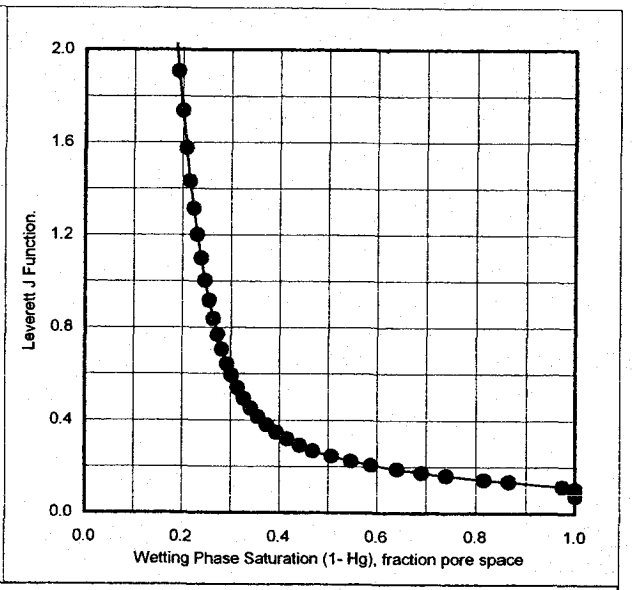
MERCURY INJECTION CAPILLARY PRESSURE

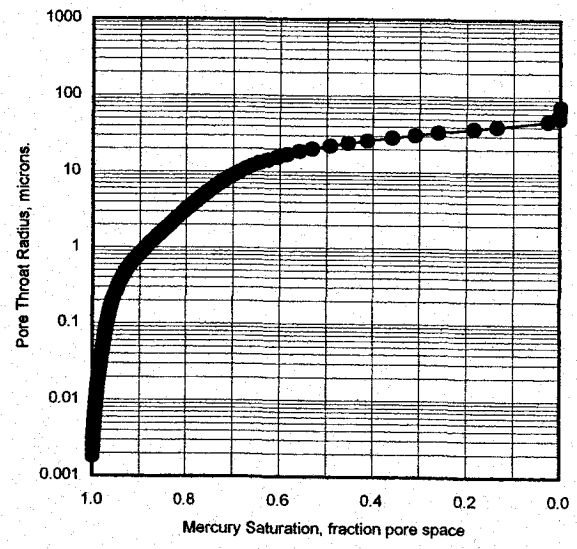
7-07-06

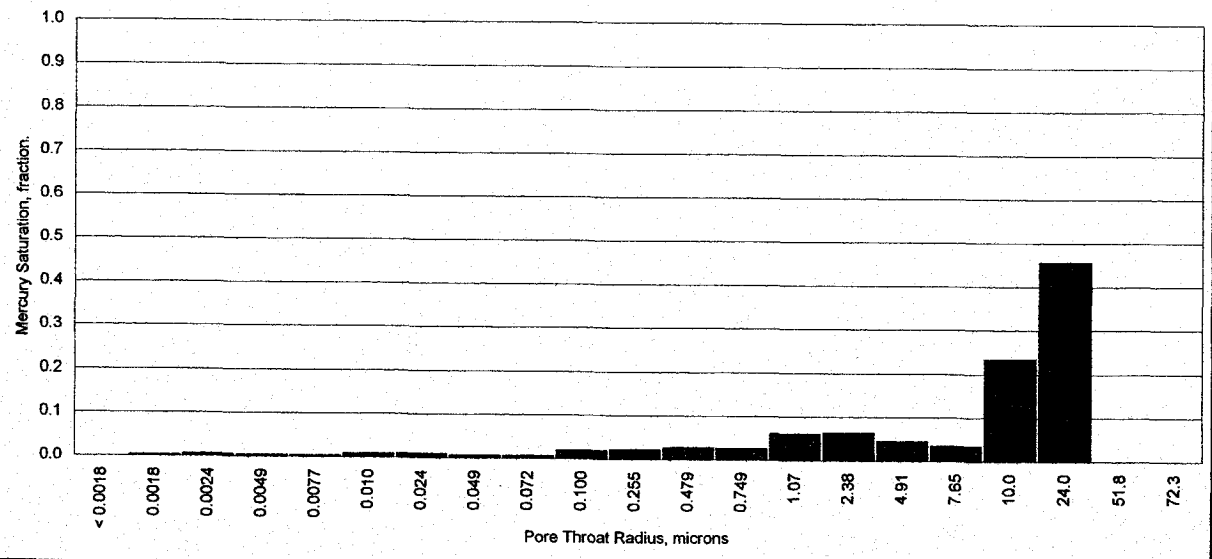
Sample Number:	5
Sample Depth, feet:	13176.55
Permeability to Air (calc), md:	1680.
Porosity, fraction:	0.235
Grain Density, grams/cc:	2.62
Median Pore Throat Radius, microns:	21.66











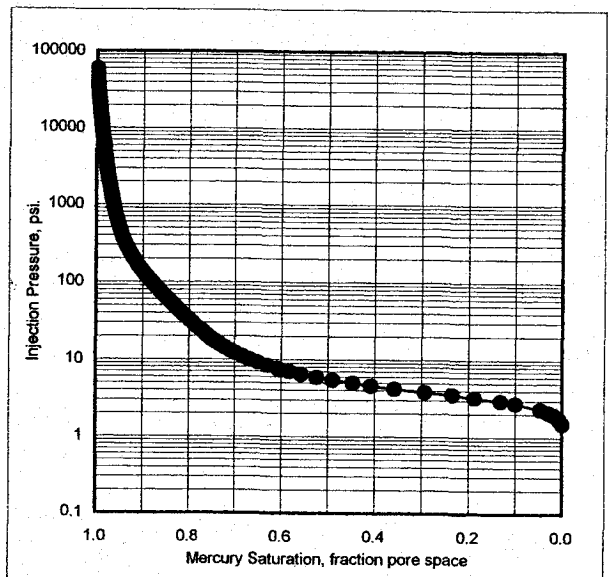
MERCURY INJECTION CAPILLARY PRESSURE

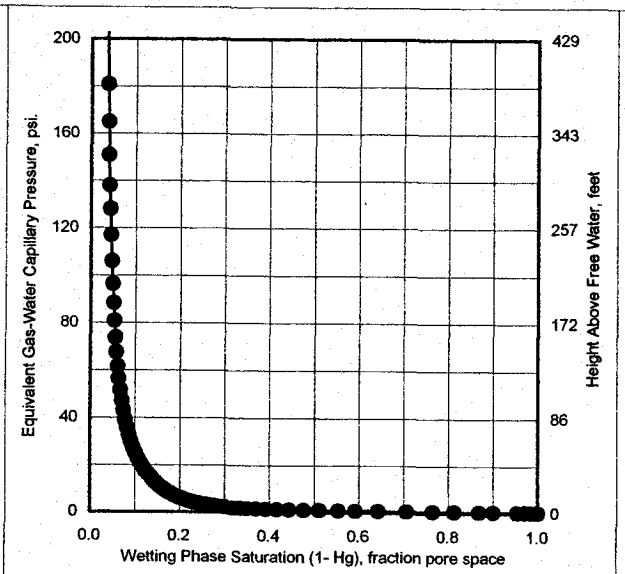
OMNI Laboratories, Inc.

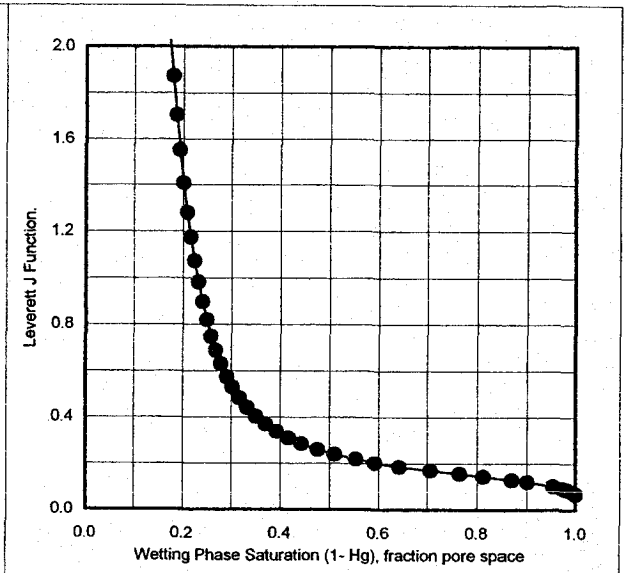
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

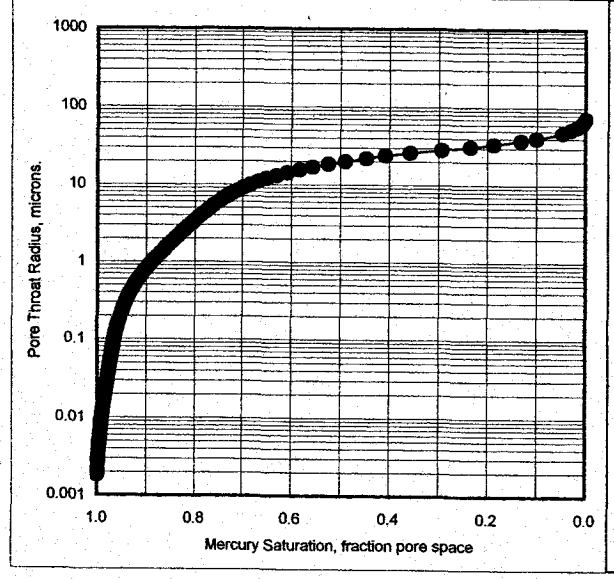
7-07-06

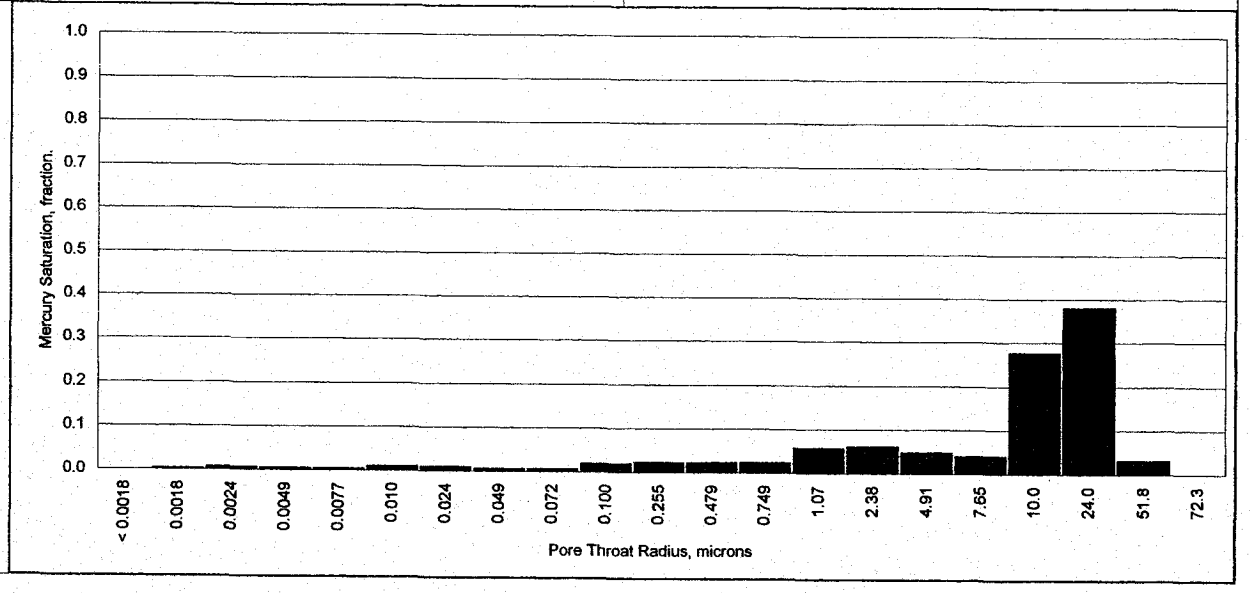
Sample Number:	6
Sample Depth, feet:	13177.80
Permeability to Air (calc), md:	1230.
Porosity, fraction:	0.215
Grain Density, grams/cc:	2.64
Median Pore Throat Radius, microns:	19.64









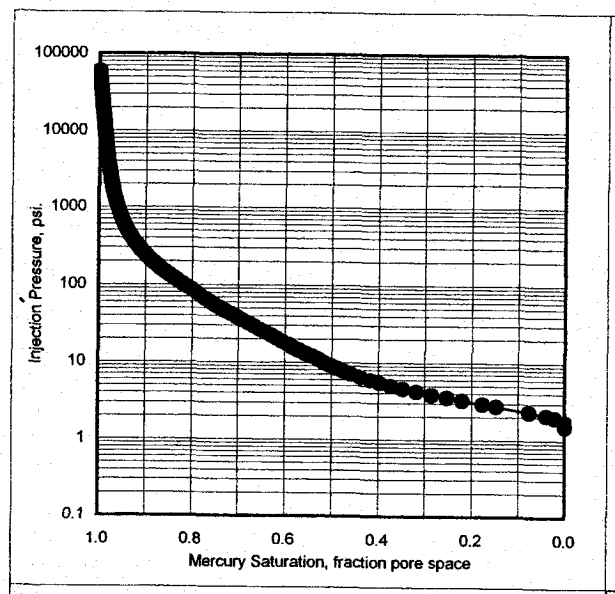


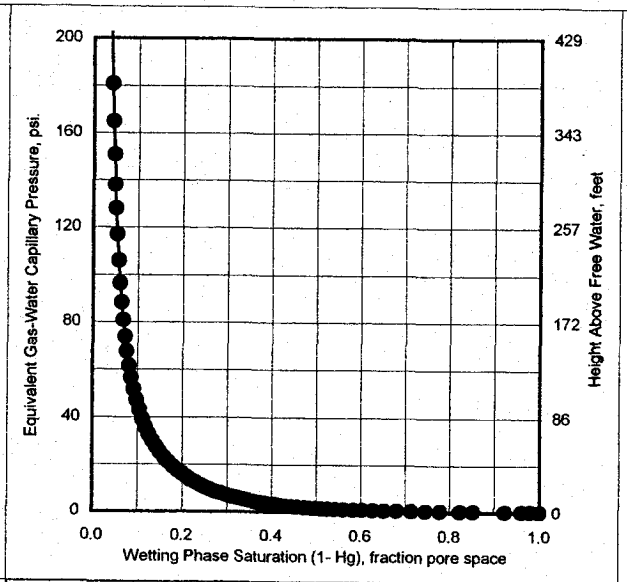
MERCURY INJECTION CAPILLARY PRESSURE

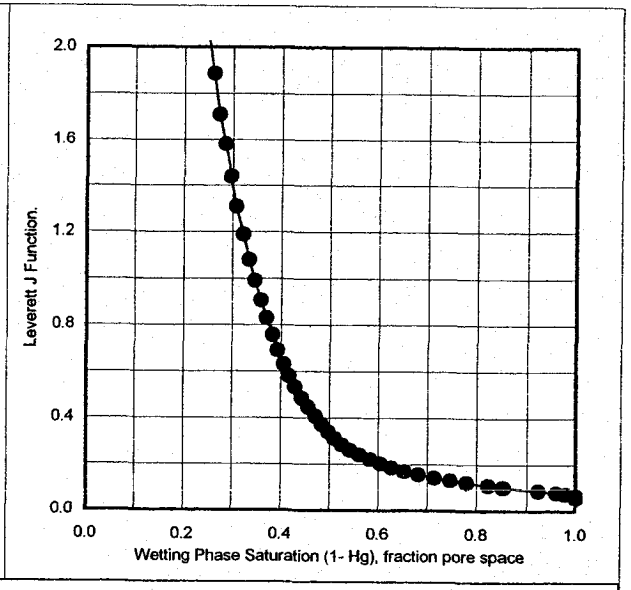
OMNI Laboratories, Inc.

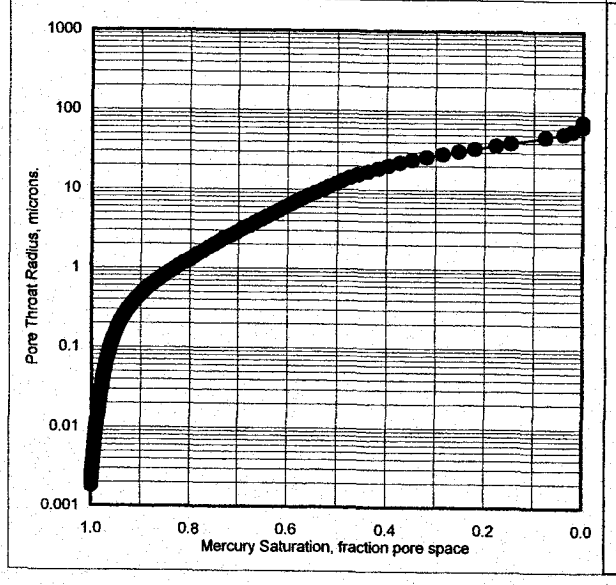
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

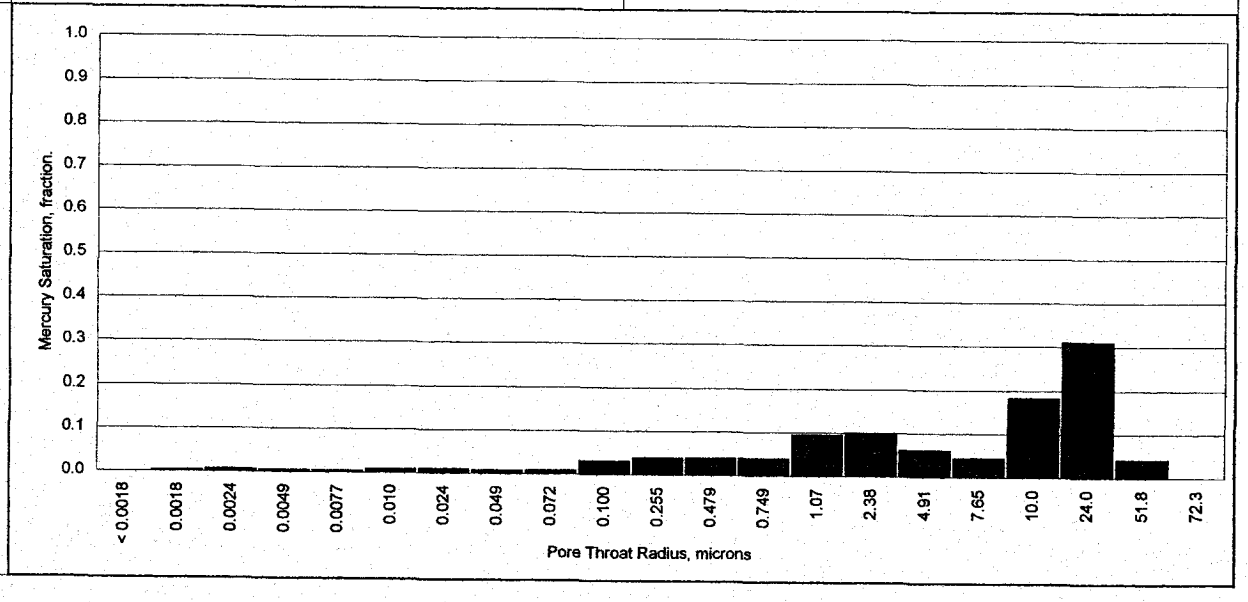
	7-07-06
Sample Number:	7
Sample Depth, feet:	13182.90
Permeability to Air (calc), md:	813.
Porosity, fraction:	0.200
Grain Density, grams/cc:	2.65
Median Pore Throat Radius, microns:	12.18











GMC DATA REPORT 3 3 8

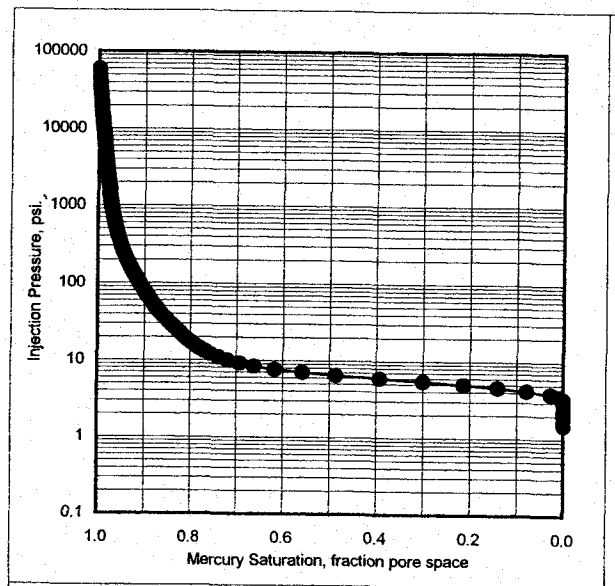
OMNI Laboratories, Inc.

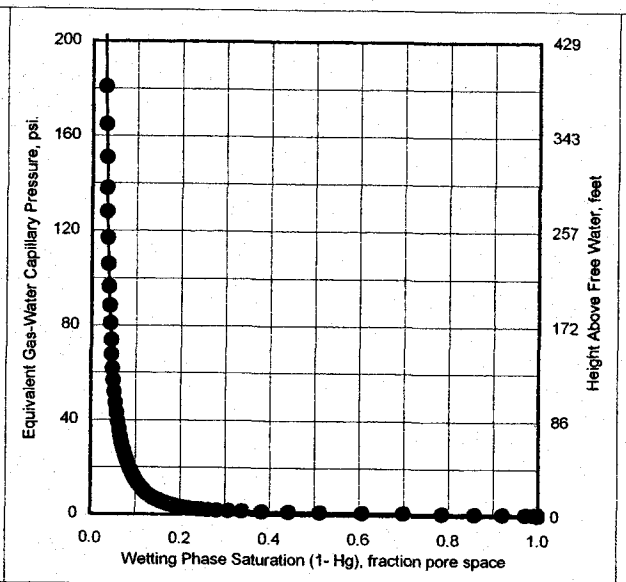
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

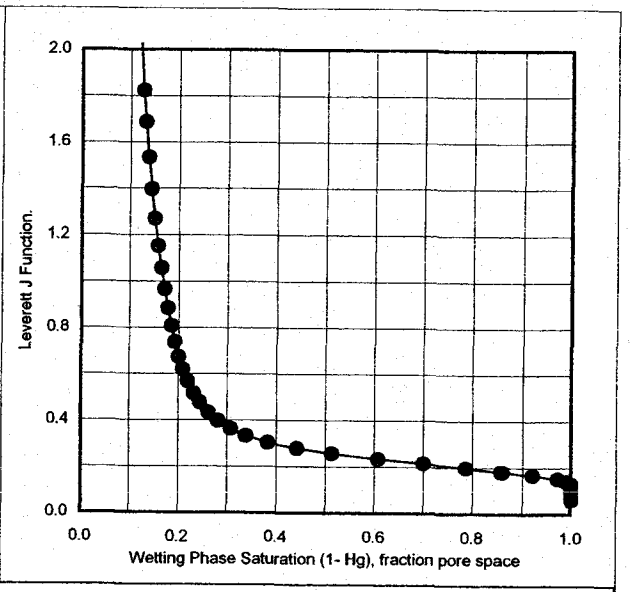
MERCURY INJECTION CAPILLARY PRESSURE

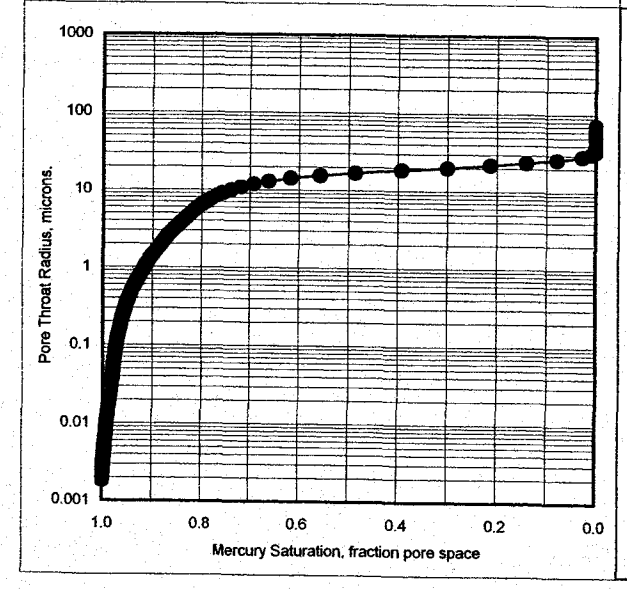
7-07-06

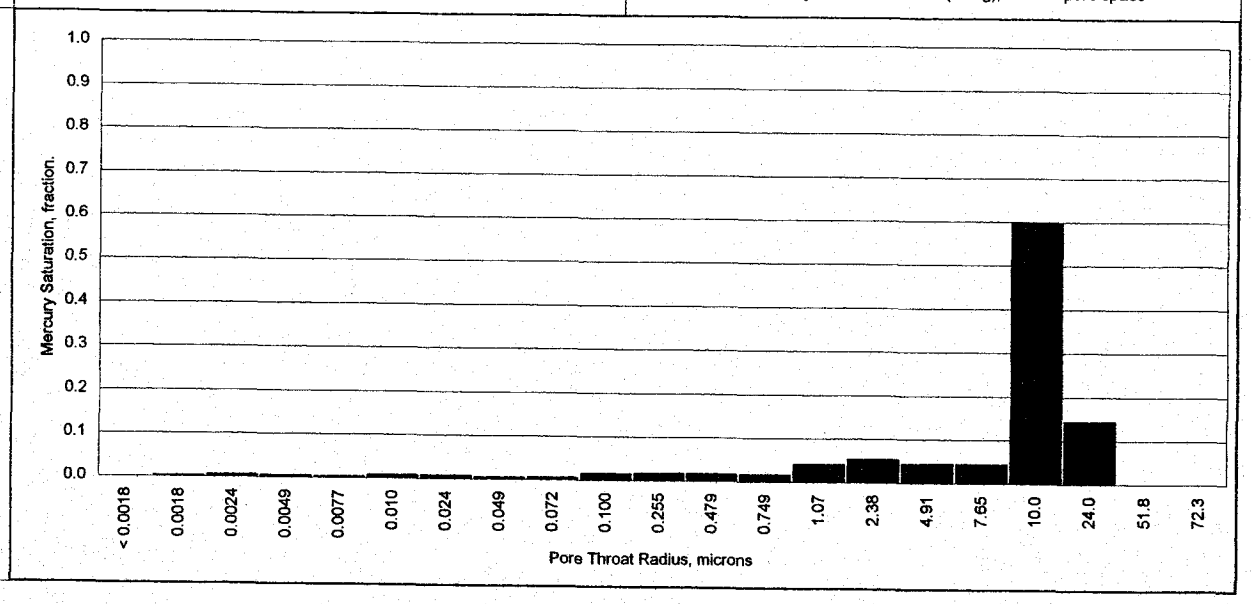
Sample Number:	8
Sample Depth, feet:	13187.85
Permeability to Air (calc), md:	977.
Porosity, fraction:	0.211
Grain Density, grams/cc:	2.63
Median Pore Throat Radius, microns:	16.65











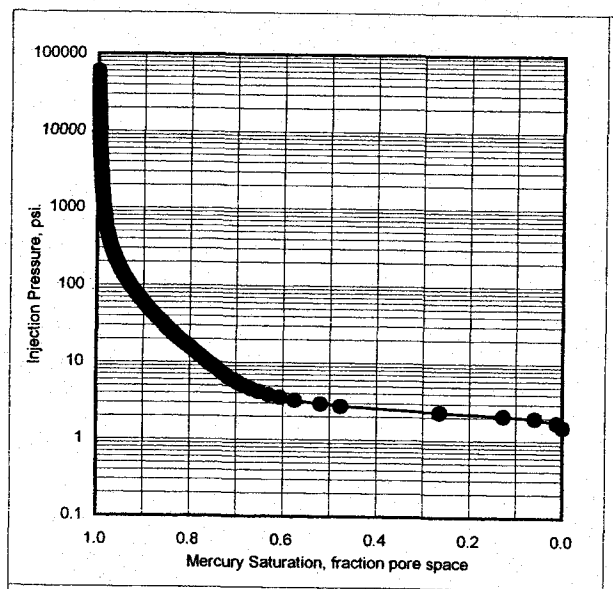
MERCURY INJECTION CAPILLARY PRESSURE

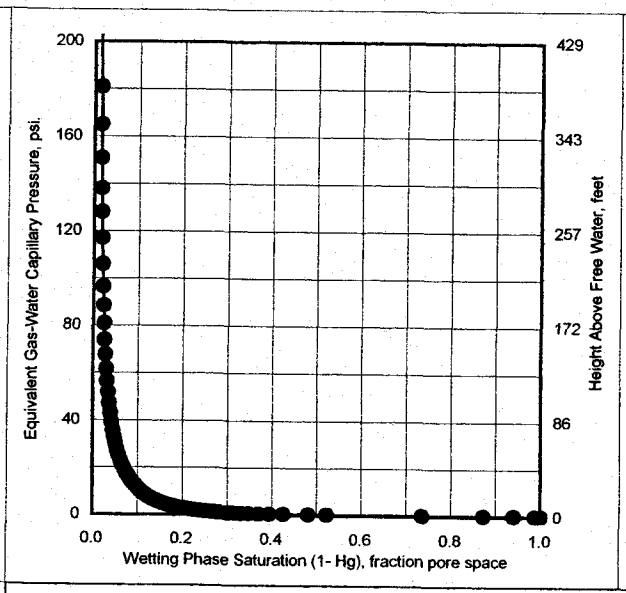
OMNI Laboratories, Inc.

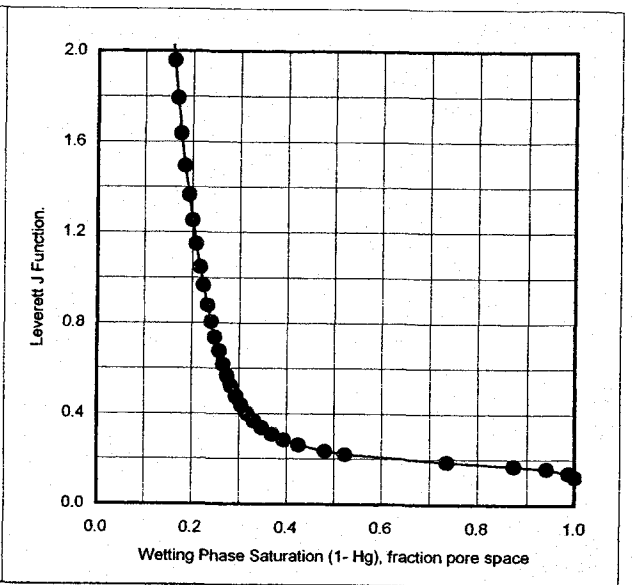
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

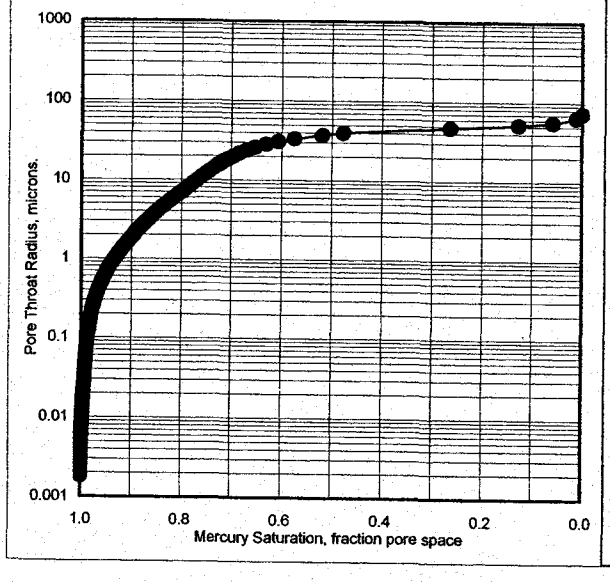
7-07-06

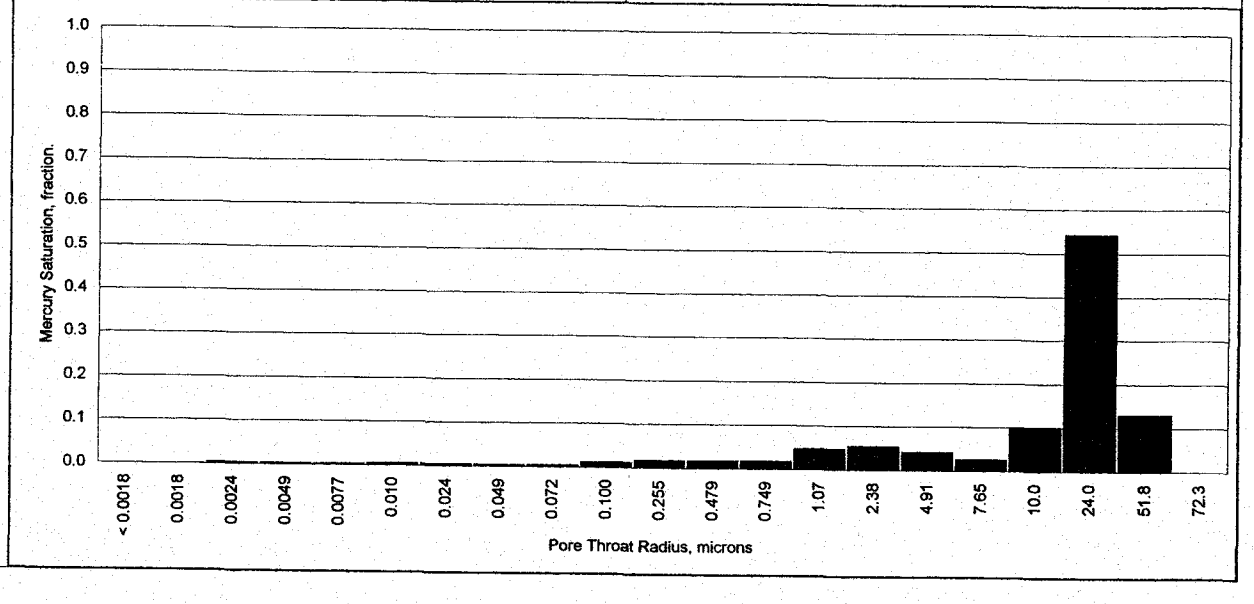
Sample Number:	9
Sample Depth, feet:	13216.6
Permeability to Air (calc), md:	4490.
Porosity, fraction:	0.236
Grain Density, grams/cc:	2.63
Median Pore Throat Radius, microns:	38.49











GMC DATA REPORT 3 3 8

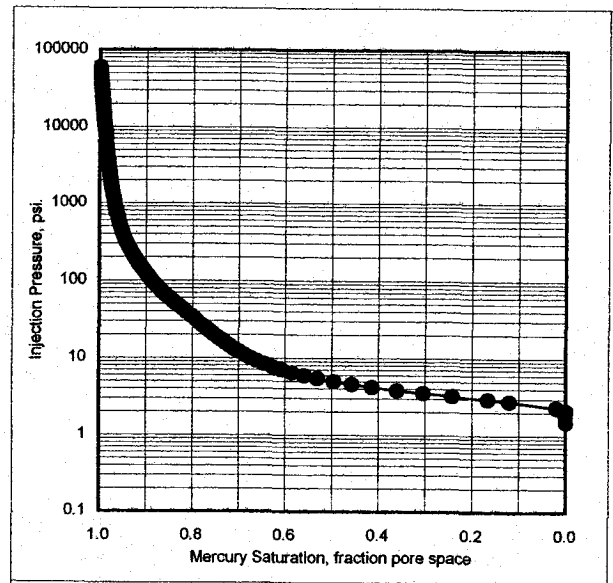
MERCURY INJECTION CAPILLARY PRESSURE

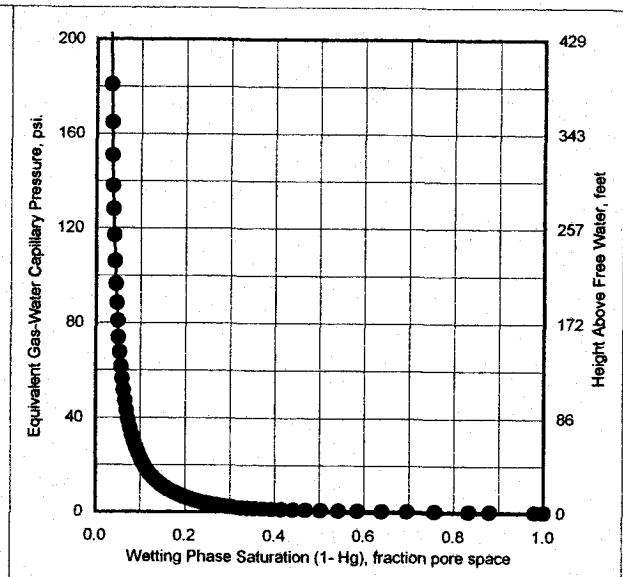
OMNI Laboratories, Inc.

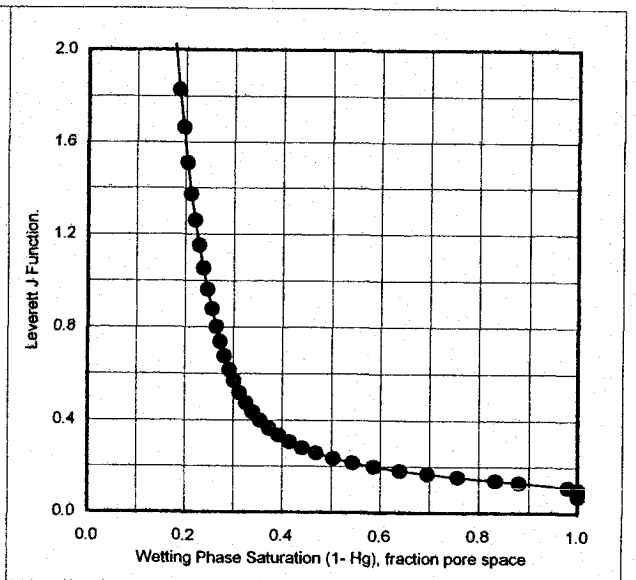
BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

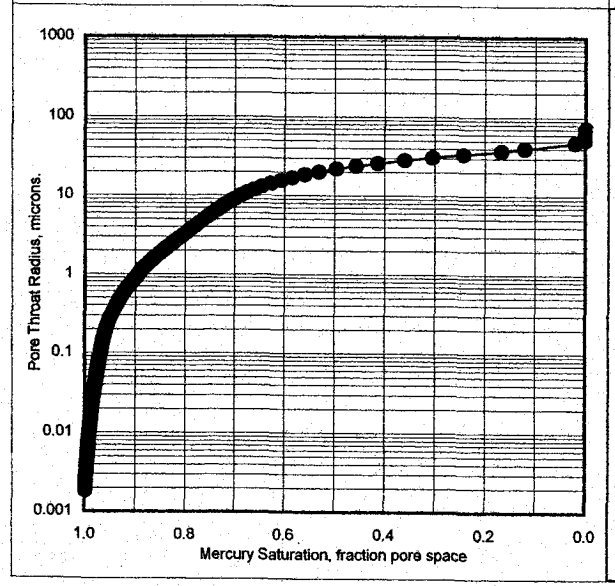
7-07-06

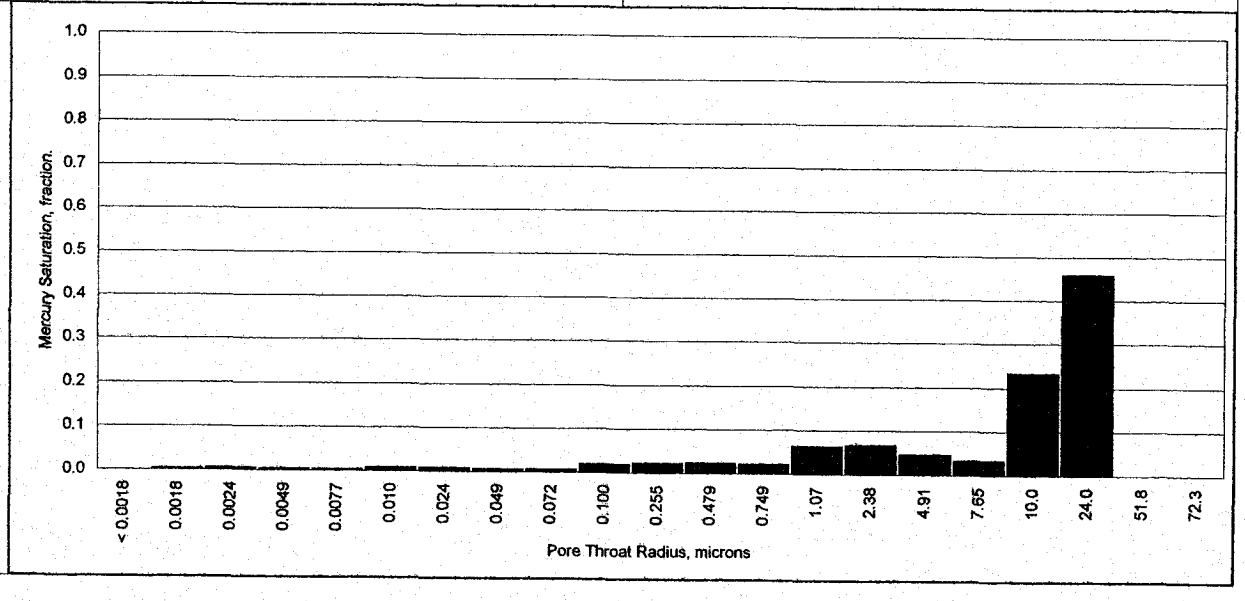
Sample Number:	10
Sample Depth, feet:	13221.35
Permeability to Air (calc), md:	1350.
Porosity, fraction:	0.205
Grain Density, grams/cc:	2.64
Median Pore Throat Radius, microns:	21.81











GMC DATA REPORT 3 3 8

OMNI Laboratories, Inc.

MERCURY INJECTION CAPILLARY PRESSURE

BP Alaska
TERN3 OCS-Y-197 Well
Alaska
File: H-35309

Composite of All Samples

Injection Pressure, psia	Mercury Saturation, fraction	1.0-Mercury Saturation, fraction	Pore Radius, microns	J Function	Other Laboratory Systems: Gas-Water, psia	Gas-Oil, psia	Oil-Water, psia	Estimated Height Above Free Water, ft: G-W	O-W	
1.51	0.000	1.000	72.3	0.024	0.28	0.10	0.12	0.61	1.01	1
1.72	0.000	1.000	63.5	0.028	0.32	0.11	0.14	0.70	1.15	135
1.96	0.000	1.000	55.7	0.031	0.37	0.13	0.16	0.79	1.31	0.179
2.11	0.000	1.000	51.8	0.034	0.40	0.14	0.17	0.85	1.41	
2.32	0.000	1.000	47.1	0.037	0.44	0.15	0.19	0.94	1.55	
2.74	0.000	1.000	39.9	0.044	0.52	0.18	0.22	1.11	1.84	
2.93	0.000	1.000	37.3	0.047	0.55	0.19	0.24	1.18	1.96	
3.26	0.000	1.000	33.5	0.052	0.61	0.21	0.27	1.32	2.18	
3.53	0.000	1.000	30.9	0.057	0.67	0.23	0.29	1.43	2.36	
3.84	0.000	1.000	28.4	0.062	0.72	0.25	0.31	1.55	2.57	
4.20	0.000	1.000	26.0	0.067	0.79	0.27	0.34	1.70	2.81	
4.56	0.000	1.000	24.0	0.073	0.86	0.29	0.37	1.84	3.05	
4.97	0.000	1.000	22.0	0.080	0.94	0.32	0.41	2.01	3.33	
5.44	0.000	1.000	20.1	0.087	1.02	0.35	0.44	2.20	3.64	
5.91	0.000	1.000	18.5	0.095	1.11	0.38	0.48	2.39	3.96	
6.47	0.000	1.000	16.9	0.104	1.22	0.42	0.53	2.61	4.33	
7.04	0.000	1.000	15.5	0.113	1.33	0.45	0.57	2.85	4.72	
7.67	0.000	1.000	14.2	0.123	1.45	0.50	0.63	3.10	5.14	
8.40	0.000	1.000	13.0	0.135	1.58	0.54	0.69	3.39	5.63	
9.15	0.000	1.000	11.9	0.147	1.72	0.59	0.75	3.70	6.13	
10.00	0.041	0.959	10.9	0.160	1.88	0.65	0.82	4.04	6.70	
10.91	0.110	0.890	10.0	0.175	2.06	0.70	0.89	4.41	7.31	
12.00	0.229	0.771	9.10	0.192	2.26	0.78	0.98	4.85	8.04	
12.99	0.328	0.672	8.41	0.208	2.45	0.84	1.06	5.25	8.70	
14.27	0.406	0.594	7.65	0.229	2.69	0.92	1.16	5.77	9.56	
15.56	0.458	0.542	7.02	0.250	2.93	1.01	1.27	6.29	10.4	
16.94	0.493	0.507	6.45	0.272	3.19	1.09	1.38	6.85	11.3	
18.55	0.521	0.479	5.89	0.297	3.49	1.20	1.51	7.50	12.4	
20.32	0.544	0.457	5.38	0.326	3.83	1.31	1.66	8.21	13.6	
22.25	0.564	0.436	4.91	0.357	4.19	1.44	1.82	8.99	14.9	
24.32	0.583	0.417	4.49	0.390	4.58	1.57	1.98	9.83	16.3	
26.60	0.599	0.401	4.11	0.427	5.01	1.72	2.17	10.8	17.8	
28.99	0.613	0.387	3.77	0.465	5.46	1.87	2.37	11.7	19.4	
31.90	0.630	0.370	3.42	0.512	6.01	2.06	2.60	12.9	21.4	
35.14	0.645	0.355	3.11	0.564	6.62	2.27	2.87	14.2	23.5	
38.59	0.661	0.339	2.83	0.619	7.27	2.49	3.15	15.6	25.8	
42.43	0.674	0.326	2.57	0.680	7.99	2.74	3.46	17.1	28.4	
45.86	0.685	0.315	2.38	0.735	8.64	2.96	3.74	18.5	30.7	
50.60	0.699	0.301	2.16	0.811	9.53	3.27	4.13	20.4	33.9	
54.69	0.710	0.290	2.00	0.877	10.3	3.53	4.46	22.1	36.6	
59.86	0.723	0.277	1.82	0.960	11.3	3.87	4.88	24.2	40.1	
65.71	0.735	0.265	1.66	1.054	12.4	4.24	5.36	26.6	44.0	
71.74	0.747	0.254	1.52	1.150	13.5	4.63	5.85	29.0	48.1	
77.86	0.757	0.243	1.40	1.249	14.7	5.03	6.35	31.5	52.2	
85.75	0.768	0.232	1.27	1.375	16.2	5.54	7.00	34.7	57.4	
93.64	0.780	0.220	1.17	1.502	17.6	6.05	7.64	37.8	62.7	
101.68	0.790	0.211	1.07	1.631	19.2	6.57	8.30	41.2	68.1	
111.98	0.800	0.200	0.975	1.796	21.1	7.23	9.14	45.3	75.0	
121.70	0.810	0.190	0.898	1.952	22.9	7.86	9.93	49.1	81.5	
133.85	0.821	0.179	0.816	2.147	25.2	8.65	10.9	54.1	89.5	
145.76	0.831	0.169	0.749	2.338	27.5	9.42	11.9	59.0	97.7	
159.69	0.840	0.160	0.684	2.561	30.1	10.3	13.0	64.6	107.	
174.53	0.849	0.151	0.626	2.799	32.9	11.3	14.2	70.6	117.	
190.06	0.859	0.141	0.575	3.048	35.8	12.3	15.5	76.8	127.	
208.09	0.868	0.132	0.525	3.337	39.2	13.4	17.0	84.1	140.	
228.16	0.877	0.123	0.479	3.659	43.0	14.7	18.6	92.2	153.	
250.43	0.885	0.115	0.436	4.016	47.2	16.2	20.4	101.	167.	
274.98	0.893	0.107	0.397	4.410	51.8	17.8	22.4	111.	184.	
300.38	0.900	0.100	0.364	4.817	56.6	19.4	24.5	121.	201.	
326.89	0.908	0.092	0.334	5.242	61.6	21.1	26.7	132.	219.	
359.50	0.915	0.085	0.304	5.765	67.7	23.2	29.3	145.	241.	
392.11	0.921	0.079	0.279	6.288	73.9	25.3	32.0	159.	263.	
429.16	0.927	0.073	0.255	6.882	80.9	27.7	35.0	174.	287.	
469.55	0.933	0.067	0.233	7.530	88.5	30.3	38.3	190.	314.	
511.94	0.938	0.062	0.213	8.210	96.5	33.1	41.8	207.	343.	
564.96	0.944	0.056	0.193	9.060	106.	36.5	46.1	227.	378.	
620.04	0.949	0.051	0.176	9.943	117.	40.1	50.6	251.	415.	
681.09	0.953	0.047	0.160	10.922	128.	44.	55.6	275.	456.	
734.02	0.956	0.044	0.149	11.771	138.	47.4	59.9	296.	492.	
802.95	0.959	0.041	0.136	12.877	151.	51.9	65.5	324.	538.	
878.32	0.962	0.038	0.124	14.085	165.	56.7	71.7	354.	589.	
961.21	0.965	0.035	0.114	15.415	181.	62.1	78.4	388.	644.	
1093.16	0.969	0.031	0.100	17.531	206.	70.6	89.2	442.	732.	
1187.15	0.971	0.029	0.092	19.038	224.	76.7	96.9	480.	796.	
1288.19	0.972	0.028	0.085	20.658	243.	83.2	105.	521.	862.	
1403.88	0.974	0.026	0.078	22.514	265.	90.7	115.	568.	944.	
1524.88	0.976	0.024	0.072	24.454	287.	98.5	124.	616.	1020.	
1670.75	0.977	0.023	0.065	26.793	315.	108.	136.	676.	1120.	
1845.94	0.979	0.021	0.059	29.603	348.	119.	151.	746.	1240.	
2006.45	0.980	0.020	0.054	32.177	378.	130.	164.	811.	1350.	
2207.35	0.981	0.019	0.049	35.399	416.	143.	180.	892.	1480.	
2405.54	0.982	0.018	0.045	38.577	453.	155.	196.	972.	1610.	
2633.98	0.983	0.017	0.041	42.240	496.	170.	215.	1064.	1770.	
2856.54	0.984	0.016	0.038	45.810	538.	185.	233.	1150.	1910.	
3139.69	0.984	0.016	0.035	50.350	592.	203.	256.	1270.	2100.	
3396.42	0.985	0.015	0.032	54.468	640.	219.	277.	1370.	2270.	
3721.82	0.986	0.014	0.029	59.686	701.	240.	304.	1500.	2500.	
4076.88	0.987	0.013	0.027	65.380	768.	263.	333.	1650.	2730.	

GMC DATA REPORT 3 3 8

4494.61	0.987	0.013	0.024	72.079	847.	290.	367.	1820.	3010.
4968.08	0.988	0.012	0.022	78.068	917.	314.	397.	1970.	3260.
5294.34	0.988	0.012	0.021	84.904	998.	342.	432.	2140.	3550.
5788.25	0.989	0.011	0.019	92.825	1090.	374.	472.	2340.	3880.
6348.76	0.990	0.010	0.017	101.813	1200.	410.	518.	2570.	4250.
6916.75	0.990	0.010	0.016	110.922	1300.	447.	564.	2790.	4630.
7582.32	0.991	0.009	0.014	121.596	1430.	490.	619.	3070.	5080.
8388.55	0.991	0.009	0.013	134.525	1580.	542.	684.	3390.	5620.
9092.58	0.992	0.008	0.012	145.815	1710.	587.	742.	3670.	6090.
9946.89	0.992	0.008	0.011	159.516	1870.	643.	812.	4010.	6670.
10903.76	0.993	0.007	0.010	174.861	2050.	704.	890.	4400.	7310.
11861.34	0.993	0.007	0.0092	190.217	2230.	766.	968.	4780.	7950.
12956.73	0.994	0.006	0.0084	207.784	2440.	837.	1060.	5230.	8700.
14248.70	0.994	0.006	0.0077	228.503	2680.	920.	1160.	5750.	9520.
15552.78	0.995	0.005	0.0070	249.416	2930.	1000.	1270.	6280.	10400.
17067.33	0.995	0.005	0.0064	273.705	3220.	1100.	1390.	6910.	11400.
18661.64	0.995	0.005	0.0059	299.272	3520.	1210.	1520.	7550.	12500.
20377.39	0.996	0.004	0.0054	326.787	3840.	1320.	1660.	8240.	13600.
22206.38	0.996	0.004	0.0049	356.118	4180.	1430.	1810.	8970.	14900.
24318.84	0.997	0.003	0.0045	389.995	4580.	1570.	1980.	9820.	16300.
26587.99	0.997	0.003	0.0041	426.385	5010.	1720.	2170.	10700.	17800.
29159.12	0.998	0.002	0.0037	467.618	5490.	1880.	2380.	11800.	19500.
32006.60	0.998	0.002	0.0034	513.282	6030.	2070.	2610.	12900.	21400.
35009.34	0.998	0.002	0.0031	561.436	6600.	2260.	2860.	14200.	23500.
38239.29	0.999	0.001	0.0029	613.234	7200.	2470.	3120.	15400.	25600.
42031.89	0.999	0.001	0.0026	674.055	7920.	2720.	3430.	17000.	28200.
45901.07	0.999	0.001	0.0024	736.104	8650.	2970.	3740.	18600.	30700.
49947.95	1.000	0.000	0.0022	801.003	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	876.227	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	952.667	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.025	0.28	0.10	0.12	0.61	1.01	2
1.72	0.000	1.000	63.5	0.028	0.32	0.11	0.14	0.70	1.15	140
1.96	0.000	1.000	55.7	0.032	0.37	0.13	0.16	0.79	1.31	0.178
2.11	0.000	1.000	51.8	0.035	0.40	0.14	0.17	0.85	1.41	
2.32	0.000	1.000	47.1	0.038	0.44	0.15	0.19	0.94	1.55	
2.74	0.000	1.000	39.9	0.045	0.52	0.18	0.22	1.11	1.84	
2.93	0.000	1.000	37.3	0.048	0.55	0.19	0.24	1.18	1.96	
3.26	0.000	1.000	33.5	0.053	0.61	0.21	0.27	1.32	2.18	
3.53	0.000	1.000	30.9	0.058	0.67	0.23	0.29	1.43	2.36	
3.84	0.000	1.000	28.4	0.063	0.72	0.25	0.31	1.55	2.57	
4.20	0.000	1.000	26.0	0.069	0.79	0.27	0.34	1.70	2.81	
4.56	0.000	1.000	24.0	0.075	0.86	0.29	0.37	1.84	3.05	
4.97	0.000	1.000	22.0	0.081	0.94	0.32	0.41	2.01	3.33	
5.44	0.000	1.000	20.1	0.089	1.02	0.35	0.44	2.20	3.64	
5.91	0.000	1.000	18.5	0.097	1.11	0.38	0.48	2.39	3.96	
6.47	0.000	1.000	16.9	0.106	1.22	0.42	0.53	2.61	4.33	
7.04	0.000	1.000	15.5	0.115	1.33	0.45	0.57	2.85	4.72	
7.67	0.000	1.000	14.2	0.126	1.45	0.50	0.63	3.10	5.14	
8.40	0.000	1.000	13.0	0.138	1.58	0.54	0.69	3.39	5.63	
9.15	0.000	1.000	11.9	0.150	1.72	0.59	0.75	3.70	6.13	
10.00	0.037	0.963	10.9	0.164	1.88	0.65	0.82	4.04	6.70	
10.91	0.104	0.896	10.0	0.179	2.06	0.70	0.89	4.41	7.31	
12.00	0.218	0.782	9.10	0.197	2.26	0.78	0.98	4.85	8.04	
12.99	0.317	0.683	8.41	0.213	2.45	0.84	1.06	5.25	8.70	
14.27	0.413	0.587	7.65	0.234	2.69	0.92	1.16	5.77	9.56	
15.56	0.472	0.528	7.02	0.255	2.93	1.01	1.27	6.29	10.4	
16.94	0.512	0.488	6.45	0.278	3.19	1.09	1.38	6.85	11.3	
18.55	0.542	0.458	5.89	0.304	3.49	1.20	1.51	7.50	12.4	
20.32	0.565	0.435	5.38	0.333	3.83	1.31	1.66	8.21	13.6	
22.25	0.584	0.416	4.91	0.365	4.19	1.44	1.82	8.99	14.9	
24.32	0.599	0.401	4.49	0.399	4.58	1.57	1.98	9.83	16.3	
26.60	0.612	0.388	4.11	0.436	5.01	1.72	2.17	10.8	17.8	
28.99	0.624	0.376	3.77	0.475	5.46	1.87	2.37	11.7	19.4	
31.90	0.636	0.364	3.42	0.523	6.01	2.06	2.60	12.9	21.4	
35.14	0.647	0.353	3.11	0.576	6.62	2.27	2.87	14.2	23.5	
38.59	0.658	0.342	2.83	0.633	7.27	2.49	3.15	15.6	25.8	
42.43	0.669	0.331	2.57	0.696	7.99	2.74	3.46	17.1	28.4	
45.86	0.679	0.321	2.38	0.752	8.64	2.96	3.74	18.5	30.7	
50.60	0.689	0.311	2.16	0.830	9.53	3.27	4.13	20.4	33.9	
54.69	0.700	0.300	2.00	0.897	10.3	3.53	4.46	22.1	36.6	
59.86	0.710	0.290	1.82	0.982	11.3	3.87	4.88	24.2	40.1	
65.71	0.720	0.280	1.66	1.078	12.4	4.24	5.36	26.6	44.0	
71.74	0.730	0.270	1.52	1.176	13.5	4.63	5.85	29.0	48.1	
77.86	0.739	0.261	1.40	1.277	14.7	5.03	6.35	31.5	52.2	
85.75	0.748	0.252	1.27	1.406	16.2	5.54	7.00	34.7	57.4	
93.64	0.756	0.244	1.17	1.536	17.6	6.05	7.64	37.8	62.7	
101.68	0.765	0.235	1.07	1.667	19.2	6.57	8.30	41.2	68.1	
111.98	0.774	0.226	0.975	1.836	21.1	7.23	9.14	45.3	75.0	
121.70	0.784	0.216	0.898	1.996	22.9	7.86	9.93	49.1	81.5	
133.85	0.793	0.207	0.816	2.195	25.2	8.65	10.9	54.1	89.5	
145.76	0.803	0.197	0.749	2.390	27.5	9.42	11.9	59.0	97.7	
159.69	0.813	0.187	0.684	2.619	30.1	10.3	13.0	64.6	107.	
174.53	0.822	0.178	0.626	2.862	32.9	11.3	14.2	70.6	117.	
190.06	0.831	0.169	0.575	3.117	35.8	12.3	15.5	76.8	127.	
208.09	0.839	0.161	0.525	3.412	39.2	13.4	17.0	84.1	140.	
228.16	0.848	0.152	0.479	3.741	43.0	14.7	18.6	92.2	153.	
250.43	0.858	0.142	0.436	4.107	47.2	16.2	20.4	101.	167.	
274.98	0.867	0.133	0.397	4.509	51.8	17.8	22.4	111.	184.	
300.38	0.875	0.125	0.364	4.926	56.6	19.4	24.5	121.	201.	
326.89	0.882	0.118	0.334	5.360	61.6	21.1	26.7	132.	219.	
359.50	0.891	0.109	0.304	5.895	67.7	23.2	29.3	145.	241.	
392.11	0.898	0.102	0.279	6.430	73.9	25.3	32.0	159.	263.	
429.16	0.905	0.095	0.255	7.037	80.9	27.7	35.0	174.	287.	
469.55	0.912	0.088	0.233	7.700	88.5	30.3	38.3	190.	314.	
511.94	0.918	0.082	0.213	8.395	96.5	33.1	41.8	207.	343.	
564.96	0.925	0.075	0.193	9.264	106.	36.5	46.1	227.	378.	
620.04	0.931	0.069	0.176	10.167	117.	40.1	50.6	251.	415.	
681.09	0.936	0.064	0.160	11.168	128.	44.	55.6	275.	456.	
734.02	0.940	0.060	0.149	12.036	138.	47.4	59.9	296.	492.	
802.95	0.944	0.056	0.136	13.167	151.	51.9	65.5	324.	538.	
878.32	0.948	0.052	0.124	14.403	165.	56.7	71.7	354.	589.	
961.21	0.952	0.048	0.114	15.762	181.	62.1	78.4	388.	644.	
1093.16	0.957	0.043	0.100	17.926	206.	70.6	89.2	442.	732.	
1187.15	0.959	0.041	0.092	19.467	224.	76.7	96.9	480.	796.	

1288.19	0.962	0.038	0.085	21.124	243.	83.2	105.	521.	862.
1403.88	0.964	0.036	0.078	23.021	265.	90.7	115.	568.	944.
1524.88	0.966	0.034	0.072	25.005	287.	98.5	124.	616.	1020.
1670.75	0.968	0.032	0.065	27.397	315.	108.	136.	676.	1120.
1845.94	0.971	0.029	0.059	30.270	348.	119.	151.	746.	1240.
2006.45	0.972	0.028	0.054	32.902	378.	130.	164.	811.	1350.
2207.35	0.974	0.026	0.049	36.196	416.	143.	180.	892.	1480.
2405.54	0.975	0.025	0.045	39.446	453.	155.	196.	972.	1610.
2633.98	0.977	0.023	0.041	43.192	496.	170.	215.	1064.	1770.
2856.54	0.978	0.022	0.038	46.841	538.	185.	233.	1150.	1910.
3139.69	0.979	0.021	0.035	51.484	592.	203.	256.	1270.	2100.
3396.42	0.980	0.020	0.032	55.694	640.	219.	277.	1370.	2270.
3721.82	0.981	0.019	0.029	61.030	701.	240.	304.	1500.	2500.
4076.88	0.982	0.018	0.027	66.852	768.	263.	333.	1650.	2730.
4494.61	0.983	0.017	0.024	73.702	847.	290.	367.	1820.	3010.
4868.08	0.983	0.017	0.022	79.826	917.	314.	397.	1970.	3260.
5294.34	0.984	0.016	0.021	86.816	998.	342.	432.	2140.	3550.
5788.25	0.985	0.015	0.019	94.915	1090.	374.	472.	2340.	3880.
6348.76	0.986	0.014	0.017	104.106	1200.	410.	518.	2570.	4250.
6916.75	0.986	0.014	0.016	113.420	1300.	447.	564.	2790.	4630.
7582.32	0.987	0.013	0.014	124.334	1430.	490.	619.	3070.	5080.
8388.55	0.988	0.012	0.013	137.555	1580.	542.	684.	3390.	5620.
9092.58	0.988	0.012	0.012	149.099	1710.	587.	742.	3670.	6090.
9946.89	0.989	0.011	0.011	163.108	1870.	643.	812.	4010.	6670.
10903.76	0.990	0.010	0.010	178.799	2050.	704.	890.	4400.	7310.
11861.34	0.991	0.009	0.0092	194.501	2230.	766.	968.	4780.	7950.
12956.73	0.991	0.009	0.0084	212.463	2440.	837.	1060.	5230.	8700.
14248.70	0.992	0.008	0.0077	233.649	2680.	920.	1160.	5750.	9520.
15552.78	0.993	0.007	0.0070	255.033	2930.	1000.	1270.	6280.	10400.
17067.33	0.993	0.007	0.0064	279.869	3220.	1100.	1390.	6910.	11400.
18661.64	0.994	0.006	0.0059	306.012	3520.	1210.	1520.	7550.	12500.
20377.39	0.995	0.005	0.0054	334.147	3840.	1320.	1660.	8240.	13600.
22206.38	0.995	0.005	0.0049	364.138	4180.	1430.	1810.	8970.	14900.
24318.84	0.996	0.004	0.0045	398.778	4580.	1570.	1980.	9820.	16300.
26587.99	0.996	0.004	0.0041	435.987	5010.	1720.	2170.	10700.	17800.
29159.12	0.997	0.003	0.0037	478.149	5490.	1880.	2380.	11800.	19500.
32006.60	0.998	0.002	0.0034	524.841	6030.	2070.	2610.	12900.	21400.
35009.34	0.998	0.002	0.0031	574.080	6600.	2260.	2860.	14200.	23500.
38239.29	0.999	0.001	0.0029	627.044	7200.	2470.	3120.	15400.	25600.
42031.89	0.999	0.001	0.0026	689.235	7920.	2720.	3430.	17000.	28200.
45901.07	0.999	0.001	0.0024	752.682	8650.	2970.	3740.	18600.	30700.
49947.95	1.000	0.000	0.0022	819.042	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	895.960	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	974.122	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.032	0.28	0.10	0.12	0.61	1.01	3
1.72	0.000	1.000	63.5	0.036	0.32	0.11	0.14	0.70	1.15	249
1.96	0.000	1.000	55.7	0.041	0.37	0.13	0.16	0.79	1.31	0.191
2.11	0.000	1.000	51.8	0.045	0.40	0.14	0.17	0.85	1.41	
2.32	0.000	1.000	47.1	0.049	0.44	0.15	0.19	0.94	1.55	
2.74	0.000	1.000	39.9	0.058	0.52	0.18	0.22	1.11	1.84	
2.93	0.000	1.000	37.3	0.062	0.55	0.19	0.24	1.18	1.96	
3.26	0.000	1.000	33.5	0.069	0.61	0.21	0.27	1.32	2.18	
3.53	0.000	1.000	30.9	0.074	0.67	0.23	0.29	1.43	2.36	
3.84	0.000	1.000	28.4	0.081	0.72	0.25	0.31	1.55	2.57	
4.20	0.000	1.000	26.0	0.089	0.79	0.27	0.34	1.70	2.81	
4.56	0.000	1.000	24.0	0.096	0.86	0.29	0.37	1.84	3.05	
4.97	0.000	1.000	22.0	0.105	0.94	0.32	0.41	2.01	3.33	
5.44	0.000	1.000	20.1	0.115	1.02	0.35	0.44	2.20	3.64	
5.91	0.000	1.000	18.5	0.125	1.11	0.38	0.48	2.39	3.96	
6.47	0.000	1.000	16.9	0.137	1.22	0.42	0.53	2.61	4.33	
7.04	0.000	1.000	15.5	0.149	1.33	0.45	0.57	2.85	4.72	
7.67	0.016	0.984	14.2	0.162	1.45	0.50	0.63	3.10	5.14	
8.40	0.061	0.939	13.0	0.177	1.58	0.54	0.69	3.39	5.63	
9.15	0.137	0.863	11.9	0.193	1.72	0.59	0.75	3.70	6.13	
10.00	0.239	0.761	10.9	0.211	1.88	0.65	0.82	4.04	6.70	
10.91	0.373	0.627	10.0	0.230	2.06	0.70	0.89	4.41	7.31	
12.00	0.465	0.535	9.10	0.253	2.26	0.78	0.98	4.85	8.04	
12.99	0.516	0.484	8.41	0.274	2.45	0.84	1.06	5.25	8.70	
14.27	0.558	0.442	7.65	0.301	2.69	0.92	1.16	5.77	9.56	
15.56	0.585	0.415	7.02	0.328	2.93	1.01	1.27	6.29	10.4	
16.94	0.601	0.399	6.45	0.357	3.19	1.09	1.38	6.85	11.3	
18.55	0.617	0.383	5.89	0.391	3.49	1.20	1.51	7.50	12.4	
20.32	0.631	0.369	5.38	0.429	3.83	1.31	1.66	8.21	13.6	
22.25	0.642	0.358	4.91	0.469	4.19	1.44	1.82	8.99	14.9	
24.32	0.652	0.348	4.49	0.513	4.58	1.57	1.98	9.83	16.3	
26.60	0.662	0.338	4.11	0.561	5.01	1.72	2.17	10.8	17.8	
28.99	0.673	0.327	3.77	0.612	5.46	1.87	2.37	11.7	19.4	
31.90	0.683	0.317	3.42	0.673	6.01	2.06	2.60	12.9	21.4	
35.14	0.693	0.307	3.11	0.741	6.62	2.27	2.87	14.2	23.5	
38.59	0.703	0.297	2.83	0.814	7.27	2.49	3.15	15.6	25.8	
42.43	0.712	0.288	2.57	0.895	7.99	2.74	3.46	17.1	28.4	
45.86	0.720	0.280	2.38	0.968	8.64	2.96	3.74	18.5	30.7	
50.60	0.730	0.270	2.16	1.068	9.53	3.27	4.13	20.4	33.9	
54.69	0.738	0.262	2.00	1.154	10.3	3.53	4.46	22.1	36.6	
59.86	0.748	0.253	1.82	1.263	11.3	3.87	4.88	24.2	40.1	
65.71	0.757	0.243	1.66	1.386	12.4	4.24	5.36	26.6	44.0	
71.74	0.765	0.235	1.52	1.514	13.5	4.63	5.85	29.0	48.1	
77.86	0.773	0.227	1.40	1.643	14.7	5.03	6.35	31.5	52.2	
85.75	0.782	0.218	1.27	1.809	16.2	5.54	7.00	34.7	57.4	
93.64	0.791	0.210	1.17	1.976	17.6	6.05	7.64	37.8	62.7	
101.68	0.799	0.201	1.07	2.145	19.2	6.57	8.30	41.2	68.1	
111.98	0.807	0.193	0.975	2.363	21.1	7.23	9.14	45.3	75.0	
121.70	0.814	0.186	0.898	2.568	22.9	7.86	9.93	49.1	81.5	
133.85	0.822	0.178	0.816	2.824	25.2	8.65	10.9	54.1	89.5	
145.76	0.831	0.169	0.749	3.075	27.5	9.42	11.9	59.0	97.7	
159.69	0.839	0.161	0.684	3.369	30.1	10.3	13.0	64.6	107.	
174.53	0.847	0.153	0.626	3.683	32.9	11.3	14.2	70.6	117.	
190.06	0.854	0.146	0.575	4.010	35.8	12.3	15.5	76.8	127.	
208.09	0.862	0.138	0.525	4.391	39.2	13.4	17.0	84.1	140.	
228.16	0.869	0.131	0.479	4.814	43.0	14.7	18.6	92.2	153.	
250.43	0.877	0.123	0.436	5.284	47.2	16.2	20.4	101.	167.	
274.98	0.884	0.116	0.397	5.802	51.8	17.8	22.4	111.	184.	
300.38	0.891	0.109	0.364	6.338	56.6	19.4	24.5	121.	201.	
326.89	0.897	0.103	0.334	6.897	61.6	21.1	26.7	132.	219.	

359.50	0.904	0.096	0.304	7.585	67.7	23.2	29.3	145.	241.
392.11	0.911	0.089	0.279	8.273	73.9	25.3	32.0	159.	263.
429.16	0.917	0.083	0.255	9.055	80.9	27.7	35.0	174.	287.
469.55	0.923	0.077	0.233	9.907	88.5	30.3	38.3	190.	314.
511.94	0.928	0.072	0.213	10.802	96.5	33.1	41.8	207.	343.
564.96	0.934	0.066	0.193	11.921	106.	36.5	46.1	227.	378.
620.04	0.940	0.060	0.176	13.083	117.	40.1	50.6	251.	415.
681.09	0.945	0.055	0.160	14.371	128.	44.	55.6	275.	456.
734.02	0.948	0.052	0.149	15.488	138.	47.4	59.9	296.	492.
802.95	0.953	0.047	0.136	16.942	151.	51.9	65.5	324.	538.
878.32	0.957	0.043	0.124	18.532	165.	56.7	71.7	354.	589.
961.21	0.960	0.040	0.114	20.281	181.	62.1	78.4	388.	644.
1093.16	0.964	0.036	0.100	23.065	206.	70.6	89.2	442.	732.
1187.15	0.967	0.033	0.092	25.049	224.	76.7	96.9	480.	796.
1288.19	0.969	0.031	0.085	27.180	243.	83.2	105.	521.	862.
1403.88	0.971	0.029	0.078	29.622	265.	90.7	115.	568.	944.
1524.88	0.973	0.027	0.072	32.175	287.	98.5	124.	616.	1020.
1670.75	0.975	0.025	0.065	35.252	315.	108.	136.	676.	1120.
1845.94	0.977	0.023	0.059	38.949	348.	119.	151.	746.	1240.
2006.45	0.978	0.022	0.054	42.336	378.	130.	164.	811.	1350.
2207.35	0.980	0.020	0.049	46.575	416.	143.	180.	892.	1480.
2405.54	0.981	0.019	0.045	50.756	453.	155.	196.	972.	1610.
2633.98	0.982	0.018	0.041	55.576	496.	170.	215.	1064.	1770.
2856.54	0.983	0.017	0.038	60.272	538.	185.	233.	1150.	1910.
3139.69	0.984	0.016	0.035	66.247	592.	203.	256.	1270.	2100.
3396.42	0.985	0.015	0.032	71.664	640.	219.	277.	1370.	2270.
3721.82	0.986	0.014	0.029	78.529	701.	240.	304.	1500.	2500.
4076.88	0.986	0.014	0.027	86.021	768.	263.	333.	1650.	2730.
4494.81	0.987	0.013	0.024	94.835	847.	290.	367.	1820.	3010.
4868.08	0.988	0.012	0.022	102.715	917.	314.	397.	1970.	3260.
5294.34	0.988	0.012	0.021	111.709	998.	342.	432.	2140.	3550.
5788.25	0.989	0.011	0.019	122.131	1090.	374.	472.	2340.	3880.
6348.76	0.989	0.011	0.017	133.957	1200.	410.	518.	2570.	4250.
6916.75	0.990	0.010	0.016	145.942	1300.	447.	564.	2790.	4630.
7582.32	0.990	0.010	0.014	159.985	1430.	490.	619.	3070.	5080.
8388.55	0.991	0.009	0.013	176.996	1580.	542.	684.	3390.	5620.
9092.58	0.992	0.008	0.012	191.851	1710.	587.	742.	3670.	6090.
9948.89	0.992	0.008	0.011	209.877	1870.	643.	812.	4010.	6670.
10903.76	0.993	0.007	0.010	230.066	2050.	704.	890.	4400.	7310.
11861.34	0.993	0.007	0.0092	250.271	2230.	766.	968.	4780.	7950.
12956.73	0.993	0.007	0.0084	273.384	2440.	837.	1060.	5230.	8700.
14248.70	0.994	0.006	0.0077	300.644	2680.	920.	1160.	5750.	9520.
15552.78	0.994	0.006	0.0070	328.160	2930.	1000.	1270.	6280.	10400.
17067.33	0.995	0.005	0.0064	360.116	3220.	1100.	1390.	6910.	11400.
18661.64	0.995	0.005	0.0059	393.756	3520.	1210.	1520.	7550.	12500.
20377.39	0.996	0.004	0.0054	429.958	3840.	1320.	1660.	8240.	13600.
22206.38	0.996	0.004	0.0049	468.549	4180.	1430.	1810.	8970.	14900.
24318.84	0.997	0.003	0.0045	513.121	4580.	1570.	1980.	9820.	16300.
26587.99	0.997	0.003	0.0041	561.000	5010.	1720.	2170.	10700.	17800.
29159.12	0.998	0.002	0.0037	615.250	5490.	1880.	2380.	11800.	19500.
32006.60	0.998	0.002	0.0034	675.331	6030.	2070.	2610.	12900.	21400.
35009.34	0.998	0.002	0.0031	738.688	6600.	2260.	2860.	14200.	23500.
38239.29	0.999	0.001	0.0029	806.839	7200.	2470.	3120.	15400.	25600.
42031.89	0.999	0.001	0.0026	886.862	7920.	2720.	3430.	17000.	28200.
45901.07	0.999	0.001	0.0024	968.501	8650.	2970.	3740.	18600.	30700.
49947.95	1.000	0.000	0.0022	1053.889	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	1152.862	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	1253.436	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.061	0.28	0.10	0.12	0.61	1.01	4
1.72	0.000	1.000	63.5	0.069	0.32	0.11	0.14	0.70	1.15	1030
1.96	0.000	1.000	55.7	0.079	0.37	0.13	0.16	0.79	1.31	0.215
2.11	0.000	1.000	51.8	0.085	0.40	0.14	0.17	0.85	1.41	
2.32	0.000	1.000	47.1	0.094	0.44	0.15	0.19	0.94	1.55	
2.74	0.000	1.000	39.9	0.111	0.52	0.18	0.22	1.11	1.84	
2.93	0.000	1.000	37.3	0.118	0.55	0.19	0.24	1.18	1.96	
3.26	0.021	0.979	33.5	0.132	0.61	0.21	0.27	1.32	2.18	
3.53	0.050	0.950	30.9	0.143	0.67	0.23	0.29	1.43	2.36	
3.84	0.096	0.904	28.4	0.155	0.72	0.25	0.31	1.55	2.57	
4.20	0.161	0.839	26.0	0.170	0.79	0.27	0.34	1.70	2.81	
4.56	0.229	0.771	24.0	0.184	0.86	0.29	0.37	1.84	3.05	
4.97	0.307	0.693	22.0	0.201	0.94	0.32	0.41	2.01	3.33	
5.44	0.398	0.602	20.1	0.220	1.02	0.35	0.44	2.20	3.64	
5.91	0.468	0.532	18.5	0.239	1.11	0.38	0.48	2.39	3.96	
6.47	0.527	0.473	16.9	0.261	1.22	0.42	0.53	2.61	4.33	
7.04	0.569	0.431	15.5	0.284	1.33	0.45	0.57	2.85	4.72	
7.67	0.603	0.397	14.2	0.310	1.45	0.50	0.63	3.10	5.14	
8.40	0.631	0.369	13.0	0.339	1.58	0.54	0.69	3.39	5.63	
9.15	0.651	0.349	11.9	0.369	1.72	0.59	0.75	3.70	6.13	
10.00	0.669	0.331	10.9	0.404	1.88	0.65	0.82	4.04	6.70	
10.91	0.683	0.317	10.0	0.441	2.06	0.70	0.89	4.41	7.31	
12.00	0.696	0.304	9.10	0.485	2.26	0.78	0.98	4.85	8.04	
12.99	0.706	0.294	8.41	0.525	2.45	0.84	1.06	5.25	8.70	
14.27	0.717	0.283	7.65	0.576	2.69	0.92	1.16	5.77	9.56	
15.56	0.726	0.274	7.02	0.628	2.93	1.01	1.27	6.29	10.4	
16.94	0.734	0.266	6.45	0.684	3.19	1.09	1.38	6.85	11.3	
18.55	0.744	0.256	5.89	0.749	3.49	1.20	1.51	7.50	12.4	
20.32	0.754	0.246	5.38	0.821	3.83	1.31	1.66	8.21	13.6	
22.25	0.762	0.239	4.91	0.898	4.19	1.44	1.82	8.99	14.9	
24.32	0.770	0.230	4.49	0.982	4.58	1.57	1.98	9.83	16.3	
26.60	0.779	0.221	4.11	1.074	5.01	1.72	2.17	10.8	17.8	
28.99	0.787	0.214	3.77	1.171	5.46	1.87	2.37	11.7	19.4	
31.90	0.795	0.205	3.42	1.288	6.01	2.06	2.60	12.9	21.4	
35.14	0.804	0.196	3.11	1.419	6.62	2.27	2.87	14.2	23.5	
38.59	0.812	0.188	2.83	1.558	7.27	2.49	3.15	15.6	25.8	
42.43	0.820	0.180	2.57	1.713	7.99	2.74	3.46	17.1	28.4	
45.86	0.827	0.173	2.38	1.852	8.64	2.96	3.74	18.5	30.7	
50.60	0.836	0.164	2.16	2.043	9.53	3.27	4.13	20.4	33.9	
54.69	0.842	0.158	2.00	2.208	10.3	3.53	4.46	22.1	36.6	
59.86	0.849	0.151	1.82	2.417	11.3	3.87	4.88	24.2	40.1	
65.71	0.857	0.143	1.66	2.653	12.4	4.24	5.36	26.6	44.0	
71.74	0.863	0.137	1.52	2.897	13.5	4.63	5.85	29.0	48.1	
77.86	0.869	0.131	1.40	3.144	14.7	5.03	6.35	31.5	52.2	
85.75	0.876	0.124	1.27	3.463	16.2	5.54	7.00	34.7	57.4	
93.64	0.882	0.118	1.17	3.781	17.6	6.05	7.64	37.8	62.7	

101.68	0.889	0.111	1.07	4.106	19.2	6.57	8.30	41.2	68.1
111.98	0.895	0.105	0.975	4.522	21.1	7.23	9.14	45.3	75.0
121.70	0.901	0.099	0.898	4.914	22.9	7.86	9.93	49.1	81.5
133.85	0.906	0.094	0.816	5.405	25.2	8.65	10.9	54.1	89.5
145.76	0.911	0.089	0.749	5.886	27.5	9.42	11.9	59.0	97.7
159.69	0.916	0.084	0.684	6.448	30.1	10.3	13.0	64.6	107.
174.53	0.921	0.079	0.626	7.048	32.9	11.3	14.2	70.6	117.
190.06	0.924	0.076	0.575	7.675	35.8	12.3	15.5	76.8	127.
208.09	0.929	0.071	0.525	8.403	39.2	13.4	17.0	84.1	140.
228.16	0.932	0.068	0.479	9.213	43.0	14.7	18.6	92.2	153.
250.43	0.935	0.065	0.436	10.113	47.2	16.2	20.4	101.	167.
274.98	0.939	0.061	0.397	11.104	51.8	17.8	22.4	111.	184.
300.38	0.941	0.059	0.364	12.130	56.6	19.4	24.5	121.	201.
326.89	0.944	0.056	0.334	13.200	61.6	21.1	26.7	132.	219.
359.50	0.947	0.053	0.304	14.517	67.7	23.2	29.3	145.	241.
392.11	0.949	0.051	0.279	15.834	73.9	25.3	32.0	159.	263.
429.16	0.952	0.049	0.255	17.330	80.9	27.7	35.0	174.	287.
469.55	0.954	0.047	0.233	18.961	88.5	30.3	38.3	190.	314.
511.94	0.955	0.045	0.213	20.672	96.5	33.1	41.8	207.	343.
564.96	0.957	0.043	0.193	22.813	106.	36.5	46.1	227.	378.
620.04	0.959	0.041	0.176	25.038	117.	40.1	50.6	251.	415.
681.09	0.961	0.039	0.160	27.503	128.	44.	55.6	275.	456.
734.02	0.962	0.038	0.149	29.640	138.	47.4	59.9	296.	492.
802.95	0.964	0.036	0.136	32.424	151.	51.9	65.5	324.	538.
878.32	0.965	0.035	0.124	35.467	165.	56.7	71.7	354.	589.
961.21	0.967	0.034	0.114	38.814	181.	62.1	78.4	388.	644.
1093.16	0.968	0.032	0.100	44.143	206.	70.6	89.2	442.	732.
1187.15	0.970	0.030	0.092	47.938	224.	76.7	96.9	480.	796.
1288.19	0.971	0.029	0.085	52.018	243.	83.2	105.	521.	862.
1403.88	0.972	0.028	0.078	56.690	265.	90.7	115.	568.	944.
1524.88	0.973	0.027	0.072	61.576	287.	98.5	124.	616.	1020.
1670.75	0.975	0.025	0.065	67.466	315.	108.	136.	676.	1120.
1845.94	0.976	0.024	0.059	74.540	348.	119.	151.	746.	1240.
2006.45	0.977	0.023	0.054	81.022	378.	130.	164.	811.	1350.
2207.35	0.978	0.022	0.049	89.134	416.	143.	180.	892.	1480.
2405.54	0.979	0.021	0.045	97.137	453.	155.	196.	972.	1610.
2633.98	0.980	0.020	0.041	106.362	496.	170.	215.	1064.	1770.
2856.54	0.981	0.019	0.038	115.349	538.	185.	233.	1150.	1910.
3139.69	0.982	0.018	0.035	126.783	592.	203.	256.	1270.	2100.
3396.42	0.983	0.017	0.032	137.150	640.	219.	277.	1370.	2270.
3721.82	0.984	0.016	0.029	150.290	701.	240.	304.	1500.	2500.
4076.88	0.984	0.016	0.027	164.627	768.	263.	333.	1650.	2730.
4494.61	0.985	0.015	0.024	181.496	847.	290.	367.	1820.	3010.
4868.08	0.986	0.014	0.022	196.576	917.	314.	397.	1970.	3260.
5294.34	0.987	0.013	0.021	213.789	998.	342.	432.	2140.	3550.
5788.25	0.988	0.012	0.019	233.734	1090.	374.	472.	2340.	3880.
6348.76	0.988	0.012	0.017	256.367	1200.	410.	518.	2570.	4250.
6916.75	0.989	0.011	0.016	279.303	1300.	447.	564.	2790.	4630.
7582.32	0.990	0.010	0.014	306.179	1430.	490.	619.	3070.	5080.
8388.55	0.991	0.009	0.013	338.736	1580.	542.	684.	3390.	5620.
9092.58	0.991	0.009	0.012	367.165	1710.	587.	742.	3670.	6090.
9946.89	0.992	0.008	0.011	401.662	1870.	643.	812.	4010.	6670.
10903.76	0.993	0.007	0.010	440.302	2050.	704.	890.	4400.	7310.
11861.34	0.993	0.007	0.0092	478.969	2230.	766.	968.	4780.	7950.
12956.73	0.994	0.006	0.0084	523.202	2440.	837.	1060.	5230.	8700.
14248.70	0.994	0.006	0.0077	575.373	2680.	920.	1160.	5750.	9520.
15552.78	0.995	0.005	0.0070	628.032	2930.	1000.	1270.	6280.	10400.
17067.33	0.995	0.005	0.0064	689.191	3220.	1100.	1390.	6910.	11400.
18661.64	0.996	0.004	0.0059	753.570	3520.	1210.	1520.	7550.	12500.
20377.39	0.996	0.004	0.0054	822.853	3840.	1320.	1660.	8240.	13600.
22206.38	0.996	0.004	0.0049	896.709	4180.	1430.	1810.	8970.	14900.
24318.84	0.997	0.003	0.0045	982.012	4580.	1570.	1980.	9820.	16300.
26587.99	0.997	0.003	0.0041	1073.642	5010.	1720.	2170.	10700.	17800.
29159.12	0.998	0.002	0.0037	1177.466	5490.	1880.	2380.	11800.	19500.
32006.60	0.998	0.002	0.0034	1292.449	6030.	2070.	2610.	12900.	21400.
35009.34	0.999	0.001	0.0031	1413.702	6600.	2260.	2860.	14200.	23500.
38239.29	0.999	0.001	0.0029	1544.129	7200.	2470.	3120.	15400.	25600.
42031.89	0.999	0.001	0.0026	1697.277	7920.	2720.	3430.	17000.	28200.
45901.07	1.000	0.000	0.0024	1853.518	8650.	2970.	3740.	18600.	30700.
49947.95	1.000	0.000	0.0022	2016.933	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	2206.348	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	2398.826	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.075	0.28	0.10	0.12	0.61	1.01	5
1.72	0.000	1.000	63.5	0.085	0.32	0.11	0.14	0.70	1.15	1680
1.96	0.000	1.000	55.7	0.097	0.37	0.13	0.16	0.79	1.31	0.235
2.11	0.000	1.000	51.8	0.104	0.40	0.14	0.17	0.85	1.41	
2.32	0.026	0.974	47.1	0.115	0.44	0.15	0.19	0.94	1.55	
2.74	0.136	0.864	39.9	0.135	0.52	0.18	0.22	1.11	1.84	
2.93	0.185	0.815	37.3	0.145	0.55	0.19	0.24	1.18	1.96	
3.26	0.261	0.739	33.5	0.161	0.61	0.21	0.27	1.32	2.18	
3.53	0.310	0.690	30.9	0.174	0.67	0.23	0.29	1.43	2.36	
3.84	0.359	0.641	28.4	0.190	0.72	0.25	0.31	1.55	2.57	
4.20	0.412	0.588	26.0	0.207	0.79	0.27	0.34	1.70	2.81	
4.56	0.454	0.546	24.0	0.225	0.86	0.29	0.37	1.84	3.05	
4.97	0.493	0.507	22.0	0.246	0.94	0.32	0.41	2.01	3.33	
5.44	0.531	0.469	20.1	0.269	1.02	0.35	0.44	2.20	3.64	
5.91	0.559	0.441	18.5	0.292	1.11	0.38	0.48	2.39	3.96	
6.47	0.585	0.415	16.9	0.320	1.22	0.42	0.53	2.61	4.33	
7.04	0.606	0.394	15.5	0.348	1.33	0.45	0.57	2.85	4.72	
7.67	0.626	0.374	14.2	0.379	1.45	0.50	0.63	3.10	5.14	
8.40	0.644	0.356	13.0	0.415	1.58	0.54	0.69	3.39	5.63	
9.15	0.659	0.341	11.9	0.452	1.72	0.59	0.75	3.70	6.13	
10.00	0.673	0.327	10.9	0.494	1.88	0.65	0.82	4.04	6.70	
10.91	0.686	0.314	10.0	0.539	2.06	0.70	0.89	4.41	7.31	
12.00	0.698	0.302	9.10	0.593	2.26	0.78	0.98	4.85	8.04	
12.99	0.708	0.292	8.41	0.642	2.45	0.84	1.06	5.25	8.70	
14.27	0.719	0.281	7.65	0.705	2.69	0.92	1.16	5.77	9.56	
15.56	0.728	0.272	7.02	0.769	2.93	1.01	1.27	6.29	10.4	
16.94	0.737	0.263	6.45	0.837	3.19	1.09	1.38	6.85	11.3	
18.55	0.746	0.254	5.89	0.916	3.49	1.20	1.51	7.50	12.4	
20.32	0.754	0.246	5.38	1.004	3.83	1.31	1.66	8.21	13.6	
22.25	0.762	0.238	4.91	1.099	4.19	1.44	1.82	8.99	14.9	
24.32	0.770	0.230	4.49	1.201	4.58	1.57	1.98	9.83	16.3	
26.60	0.777	0.223	4.11	1.314	5.01	1.72	2.17	10.8	17.8	

28.99	0.785	0.215	3.77	1.432	5.46	1.87	2.37	11.7	19.4
31.90	0.793	0.207	3.42	1.576	6.01	2.06	2.60	12.9	21.4
35.14	0.801	0.199	3.11	1.736	6.62	2.27	2.87	14.2	23.5
38.59	0.809	0.191	2.83	1.906	7.27	2.49	3.15	15.6	25.8
42.43	0.817	0.184	2.57	2.096	7.99	2.74	3.46	17.1	28.4
45.86	0.823	0.177	2.38	2.266	8.64	2.96	3.74	18.5	30.7
50.60	0.830	0.170	2.16	2.500	9.53	3.27	4.13	20.4	33.9
54.69	0.836	0.164	2.00	2.702	10.3	3.53	4.46	22.1	36.6
59.86	0.844	0.157	1.82	2.957	11.3	3.87	4.88	24.2	40.1
65.71	0.850	0.150	1.66	3.246	12.4	4.24	5.36	26.6	44.0
71.74	0.856	0.144	1.52	3.544	13.5	4.63	5.85	29.0	48.1
77.86	0.863	0.137	1.40	3.846	14.7	5.03	6.35	31.5	52.2
85.75	0.870	0.131	1.27	4.236	16.2	5.54	7.00	34.7	57.4
93.64	0.876	0.124	1.17	4.626	17.6	6.05	7.64	37.8	62.7
101.68	0.882	0.118	1.07	5.023	19.2	6.57	8.30	41.2	68.1
111.98	0.889	0.111	0.975	5.532	21.1	7.23	9.14	45.3	75.0
121.70	0.894	0.106	0.898	6.012	22.9	7.86	9.93	49.1	81.5
133.85	0.901	0.099	0.816	6.612	25.2	8.65	10.9	54.1	89.5
145.76	0.906	0.094	0.749	7.201	27.5	9.42	11.9	59.0	97.7
159.69	0.912	0.088	0.684	7.889	30.1	10.3	13.0	64.6	107.
174.53	0.918	0.082	0.626	8.622	32.9	11.3	14.2	70.6	117.
190.08	0.922	0.078	0.575	9.389	35.8	12.3	15.5	76.8	127.
208.09	0.927	0.073	0.525	10.280	39.2	13.4	17.0	84.1	140.
228.16	0.931	0.069	0.479	11.271	43.0	14.7	18.6	92.2	153.
250.43	0.935	0.065	0.436	12.371	47.2	16.2	20.4	101.	167.
274.98	0.938	0.062	0.397	13.584	51.8	17.8	22.4	111.	184.
300.38	0.942	0.058	0.364	14.839	56.6	19.4	24.5	121.	201.
326.89	0.945	0.055	0.334	16.149	61.6	21.1	26.7	132.	219.
359.50	0.947	0.053	0.304	17.760	67.7	23.2	29.3	145.	241.
392.11	0.950	0.050	0.279	19.371	73.9	25.3	32.0	159.	263.
429.16	0.952	0.048	0.255	21.201	80.9	27.7	35.0	174.	287.
469.55	0.954	0.046	0.233	23.196	88.5	30.3	38.3	190.	314.
511.94	0.956	0.044	0.213	25.290	96.5	33.1	41.8	207.	343.
564.96	0.958	0.042	0.193	27.909	106.	36.5	46.1	227.	378.
620.04	0.960	0.040	0.176	30.630	117.	40.1	50.6	251.	415.
681.09	0.962	0.038	0.160	33.646	128.	44.	55.6	275.	456.
734.02	0.963	0.037	0.149	36.261	138.	47.4	59.9	296.	492.
802.95	0.965	0.036	0.136	39.666	151.	51.9	65.5	324.	538.
878.32	0.966	0.034	0.124	43.390	165.	56.7	71.7	354.	589.
961.21	0.967	0.033	0.114	47.485	181.	62.1	78.4	388.	644.
1093.16	0.969	0.031	0.100	54.003	206.	70.6	89.2	442.	732.
1187.15	0.970	0.030	0.092	58.646	224.	76.7	96.9	480.	796.
1288.19	0.972	0.028	0.085	63.638	243.	83.2	105.	521.	862.
1403.88	0.973	0.027	0.078	69.353	265.	90.7	115.	568.	944.
1524.88	0.974	0.026	0.072	75.330	287.	98.5	124.	616.	1020.
1670.75	0.975	0.025	0.065	82.536	315.	108.	136.	676.	1120.
1845.94	0.976	0.024	0.059	91.191	348.	119.	151.	746.	1240.
2006.45	0.977	0.023	0.054	99.120	378.	130.	164.	811.	1350.
2207.35	0.978	0.022	0.049	109.045	416.	143.	180.	892.	1480.
2405.54	0.979	0.021	0.045	118.836	453.	155.	196.	972.	1610.
2633.98	0.980	0.020	0.041	130.121	496.	170.	215.	1064.	1770.
2856.54	0.981	0.019	0.038	141.115	538.	185.	233.	1150.	1910.
3139.69	0.982	0.018	0.035	155.103	592.	203.	256.	1270.	2100.
3398.42	0.983	0.017	0.032	167.786	640.	219.	277.	1370.	2270.
3721.82	0.983	0.017	0.029	183.861	701.	240.	304.	1500.	2500.
4076.88	0.984	0.016	0.027	201.401	768.	263.	333.	1650.	2730.
4494.61	0.985	0.015	0.024	222.037	847.	290.	367.	1820.	3010.
4868.08	0.986	0.014	0.022	240.487	917.	314.	397.	1970.	3260.
5294.34	0.987	0.013	0.021	261.545	998.	342.	432.	2140.	3550.
5788.25	0.988	0.012	0.019	285.944	1090.	374.	472.	2340.	3880.
6348.76	0.988	0.012	0.017	313.634	1200.	410.	518.	2570.	4250.
6916.75	0.989	0.011	0.016	341.693	1300.	447.	564.	2790.	4630.
7582.32	0.990	0.010	0.014	374.573	1430.	490.	619.	3070.	5080.
8388.55	0.990	0.010	0.013	414.401	1580.	542.	684.	3390.	5620.
9092.58	0.991	0.009	0.012	449.181	1710.	587.	742.	3670.	6090.
9946.89	0.991	0.009	0.011	491.385	1870.	643.	812.	4010.	6670.
10903.76	0.992	0.008	0.010	538.655	2050.	704.	890.	4400.	7310.
11861.34	0.992	0.008	0.0092	585.960	2230.	766.	968.	4780.	7950.
12956.73	0.993	0.007	0.0084	640.073	2440.	837.	1060.	5230.	8700.
14248.70	0.993	0.007	0.0077	703.898	2680.	920.	1160.	5750.	9520.
15552.78	0.994	0.006	0.0070	768.320	2930.	1000.	1270.	6280.	10400.
17067.33	0.994	0.006	0.0064	843.140	3220.	1100.	1390.	6910.	11400.
18661.64	0.995	0.005	0.0059	921.901	3520.	1210.	1520.	7550.	12500.
20377.39	0.995	0.005	0.0054	1006.660	3840.	1320.	1660.	8240.	13600.
22206.38	0.996	0.004	0.0049	1097.014	4180.	1430.	1810.	8970.	14900.
24318.84	0.996	0.004	0.0045	1201.371	4580.	1570.	1980.	9820.	16300.
26587.99	0.997	0.003	0.0041	1313.469	5010.	1720.	2170.	10700.	17800.
29159.12	0.997	0.003	0.0037	1440.485	5490.	1880.	2380.	11800.	19500.
32006.60	0.997	0.003	0.0034	1581.153	6030.	2070.	2610.	12900.	21400.
35009.34	0.998	0.002	0.0031	1729.491	6600.	2260.	2860.	14200.	23500.
38239.29	0.998	0.002	0.0029	1889.053	7200.	2470.	3120.	15400.	25600.
42031.89	0.999	0.001	0.0026	2076.411	7920.	2720.	3430.	17000.	28200.
45901.07	0.999	0.001	0.0024	2267.551	8650.	2970.	3740.	18600.	30700.
49947.95	0.999	0.001	0.0022	2467.471	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	2699.196	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	2934.670	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.067	0.28	0.10	0.12	0.61	1.01	6
1.72	0.007	0.993	63.5	0.076	0.32	0.11	0.14	0.70	1.15	1230
1.96	0.019	0.981	55.7	0.086	0.37	0.13	0.16	0.79	1.31	0.215
2.11	0.030	0.970	51.6	0.093	0.40	0.14	0.17	0.85	1.41	
2.32	0.047	0.953	47.1	0.102	0.44	0.15	0.19	0.94	1.55	
2.74	0.100	0.900	39.9	0.121	0.52	0.18	0.22	1.11	1.84	
2.93	0.132	0.868	37.3	0.129	0.55	0.19	0.24	1.18	1.96	
3.26	0.188	0.812	33.5	0.144	0.61	0.21	0.27	1.32	2.18	
3.53	0.236	0.764	30.9	0.156	0.67	0.23	0.29	1.43	2.36	
3.84	0.294	0.706	28.4	0.169	0.72	0.25	0.31	1.55	2.57	
4.20	0.358	0.642	26.0	0.185	0.79	0.27	0.34	1.70	2.81	
4.56	0.408	0.592	24.0	0.201	0.86	0.29	0.37	1.84	3.05	
4.97	0.447	0.553	22.0	0.219	0.94	0.32	0.41	2.01	3.33	
5.44	0.490	0.510	20.1	0.240	1.02	0.35	0.44	2.20	3.64	
5.91	0.525	0.475	18.5	0.261	1.11	0.38	0.48	2.39	3.96	
6.47	0.557	0.443	16.9	0.286	1.22	0.42	0.53	2.61	4.33	
7.04	0.584	0.416	15.5	0.311	1.33	0.45	0.57	2.85	4.72	
7.67	0.608	0.392	14.2	0.338	1.45	0.50	0.63	3.10	5.14	

8.40	0.631	0.369	13.0	0.371	1.58	0.54	0.69	3.39	5.63	
9.15	0.650	0.350	11.9	0.404	1.72	0.59	0.75	3.70	6.13	
10.00	0.668	0.332	10.9	0.441	1.88	0.65	0.82	4.04	6.70	
10.91	0.683	0.317	10.0	0.481	2.06	0.70	0.89	4.41	7.31	
12.00	0.698	0.302	9.10	0.530	2.26	0.78	0.98	4.85	8.04	
12.99	0.709	0.291	8.41	0.573	2.45	0.84	1.06	5.25	8.70	
14.27	0.722	0.278	7.65	0.630	2.69	0.92	1.16	5.77	9.56	
15.58	0.732	0.268	7.02	0.687	2.93	1.01	1.27	6.29	10.4	
16.94	0.742	0.258	6.45	0.748	3.19	1.09	1.38	6.85	11.3	
18.55	0.752	0.248	5.89	0.819	3.49	1.20	1.51	7.50	12.4	
20.32	0.760	0.240	5.38	0.897	3.83	1.31	1.66	8.21	13.6	
22.25	0.768	0.232	4.91	0.982	4.19	1.44	1.82	8.99	14.9	
24.32	0.776	0.224	4.49	1.073	4.58	1.57	1.98	9.83	16.3	
26.60	0.784	0.216	4.11	1.174	5.01	1.72	2.17	10.8	17.8	
28.99	0.792	0.208	3.77	1.279	5.46	1.87	2.37	11.7	19.4	
31.90	0.800	0.201	3.42	1.408	6.01	2.06	2.60	12.9	21.4	
35.14	0.807	0.193	3.11	1.551	6.62	2.27	2.87	14.2	23.5	
38.59	0.815	0.185	2.83	1.703	7.27	2.49	3.15	15.6	25.8	
42.43	0.821	0.179	2.57	1.872	7.99	2.74	3.46	17.1	28.4	
45.86	0.828	0.172	2.38	2.024	8.64	2.96	3.74	18.5	30.7	
50.60	0.834	0.166	2.16	2.233	9.53	3.27	4.13	20.4	33.9	
54.69	0.840	0.160	2.00	2.414	10.3	3.53	4.46	22.1	36.6	
59.86	0.847	0.153	1.82	2.642	11.3	3.87	4.88	24.2	40.1	
65.71	0.854	0.146	1.66	2.900	12.4	4.24	5.36	26.6	44.0	
71.74	0.860	0.140	1.52	3.166	13.5	4.63	5.85	29.0	48.1	
77.86	0.865	0.135	1.40	3.436	14.7	5.03	6.35	31.5	52.2	
85.75	0.871	0.129	1.27	3.784	16.2	5.54	7.00	34.7	57.4	
93.64	0.878	0.122	1.17	4.132	17.6	6.05	7.64	37.8	62.7	
101.68	0.883	0.117	1.07	4.487	19.2	6.57	8.30	41.2	68.1	
111.98	0.890	0.110	0.975	4.942	21.1	7.23	9.14	45.3	75.0	
121.70	0.894	0.106	0.898	5.371	22.9	7.86	9.93	49.1	81.5	
133.85	0.900	0.100	0.816	5.907	25.2	8.65	10.9	54.1	89.5	
145.76	0.905	0.095	0.749	6.433	27.5	9.42	11.9	59.0	97.7	
159.69	0.910	0.090	0.684	7.047	30.1	10.3	13.0	64.6	107.	
174.53	0.914	0.086	0.626	7.702	32.9	11.3	14.2	70.6	117.	
190.06	0.918	0.082	0.575	8.388	35.8	12.3	15.5	76.8	127.	
208.09	0.923	0.077	0.525	9.183	39.2	13.4	17.0	84.1	140.	
228.16	0.926	0.074	0.479	10.069	43.0	14.7	18.6	92.2	153.	
250.43	0.930	0.070	0.436	11.052	47.2	16.2	20.4	101.	167.	
274.98	0.934	0.066	0.397	12.135	51.8	17.8	22.4	111.	184.	
300.38	0.937	0.063	0.364	13.256	56.6	19.4	24.5	121.	201.	
326.89	0.940	0.060	0.334	14.426	61.6	21.1	26.7	132.	219.	
359.50	0.943	0.057	0.304	15.865	67.7	23.2	29.3	145.	241.	
392.11	0.945	0.055	0.279	17.304	73.9	25.3	32.0	159.	263.	
429.16	0.948	0.052	0.255	18.939	80.9	27.7	35.0	174.	287.	
469.55	0.950	0.050	0.233	20.722	88.5	30.3	38.3	190.	314.	
511.94	0.952	0.048	0.213	22.593	96.5	33.1	41.8	207.	343.	
564.96	0.954	0.046	0.193	24.932	106.	36.5	46.1	227.	378.	
620.04	0.956	0.044	0.176	27.363	117.	40.1	50.6	251.	415.	
681.09	0.957	0.043	0.160	30.057	128.	44.	55.6	275.	456.	
734.02	0.959	0.041	0.149	32.393	138.	47.4	59.9	296.	492.	
802.95	0.960	0.040	0.136	35.435	151.	51.9	65.5	324.	538.	
878.32	0.962	0.038	0.124	38.761	165.	56.7	71.7	354.	588.	
961.21	0.963	0.037	0.114	42.419	181.	62.1	78.4	388.	644.	
1093.16	0.965	0.035	0.100	48.243	206.	70.6	89.2	442.	732.	
1187.15	0.966	0.034	0.092	52.390	224.	76.7	96.9	480.	796.	
1288.19	0.967	0.033	0.085	56.850	243.	83.2	105.	521.	862.	
1403.88	0.969	0.031	0.078	61.955	265.	90.7	115.	568.	944.	
1524.88	0.970	0.030	0.072	67.295	287.	98.5	124.	616.	1020.	
1670.75	0.971	0.029	0.065	73.732	315.	108.	136.	676.	1120.	
1845.94	0.972	0.028	0.059	81.464	348.	119.	151.	746.	1240.	
2006.45	0.973	0.027	0.054	88.547	378.	130.	164.	811.	1350.	
2207.35	0.974	0.026	0.049	97.413	416.	143.	180.	892.	1480.	
2405.54	0.975	0.025	0.045	106.160	453.	155.	196.	972.	1610.	
2633.98	0.976	0.024	0.041	116.241	496.	170.	215.	1064.	1770.	
2856.54	0.977	0.023	0.038	126.063	538.	185.	233.	1150.	1910.	
3139.69	0.978	0.022	0.035	138.559	592.	203.	256.	1270.	2100.	
3396.42	0.979	0.021	0.032	149.889	640.	219.	277.	1370.	2270.	
3721.82	0.980	0.020	0.029	164.249	701.	240.	304.	1500.	2500.	
4076.88	0.981	0.019	0.027	179.918	768.	263.	333.	1650.	2730.	
4494.61	0.982	0.018	0.024	198.353	847.	290.	367.	1820.	3010.	
4868.08	0.983	0.017	0.022	214.835	917.	314.	397.	1970.	3260.	
5294.34	0.984	0.016	0.021	233.646	998.	342.	432.	2140.	3550.	
5788.25	0.985	0.015	0.019	255.443	1090.	374.	472.	2340.	3880.	
6348.76	0.986	0.014	0.017	280.179	1200.	410.	518.	2570.	4250.	
6916.75	0.987	0.013	0.016	305.245	1300.	447.	564.	2790.	4630.	
7582.32	0.988	0.012	0.014	334.618	1430.	490.	619.	3070.	5080.	
8388.55	0.988	0.012	0.013	370.198	1580.	542.	684.	3390.	5620.	
9092.58	0.989	0.011	0.012	401.268	1710.	587.	742.	3670.	6090.	
9946.89	0.990	0.010	0.011	438.969	1870.	643.	812.	4010.	6670.	
10903.76	0.990	0.010	0.010	481.197	2050.	704.	890.	4400.	7310.	
11861.34	0.991	0.009	0.0092	523.457	2230.	766.	968.	4780.	7950.	
12956.73	0.992	0.008	0.0084	571.798	2440.	837.	1060.	5230.	8700.	
14248.70	0.992	0.008	0.0077	628.814	2680.	920.	1160.	5750.	9520.	
15552.78	0.993	0.007	0.0070	686.365	2930.	1000.	1270.	6280.	10400.	
17067.33	0.994	0.006	0.0064	753.204	3220.	1100.	1390.	6910.	11400.	
18661.64	0.994	0.006	0.0059	823.563	3520.	1210.	1520.	7550.	12500.	
20377.39	0.995	0.005	0.0054	899.281	3840.	1320.	1660.	8240.	13600.	
22206.38	0.995	0.005	0.0049	979.997	4180.	1430.	1810.	8970.	14900.	
24318.84	0.996	0.004	0.0045	1073.223	4580.	1570.	1980.	9820.	16300.	
26587.99	0.996	0.004	0.0041	1173.383	5010.	1720.	2170.	10700.	17800.	
29159.12	0.997	0.003	0.0037	1286.830	5490.	1880.	2380.	11800.	19500.	
32006.60	0.997	0.003	0.0034	1412.494	6030.	2070.	2610.	12900.	21400.	
35009.34	0.998	0.002	0.0031	1545.008	6600.	2260.	2860.	14200.	23500.	
38239.29	0.998	0.002	0.0029	1687.550	7200.	2470.	3120.	15400.	25600.	
42031.89	0.999	0.001	0.0026	1854.923	7920.	2720.	3430.	17000.	28200.	
45901.07	0.999	0.001	0.0024	2025.875	8650.	2970.	3740.	18600.	30700.	
49947.95	1.000	0.000	0.0022	2204.269	9410.	3230.	4070.	20200.	33400.	
54638.88	1.000	0.000	0.0020	2411.277	10290.	3530.	4460.	22100.	36600.	
59405.26	1.000	0.000	0.0018	2621.633	11190.	3840.	4850.	24000.	39800.	
1.51	0.000	1.000	72.3	0.056	0.28	0.10	0.12	0.61	1.01	7
1.72	0.000	1.000	63.5	0.064	0.32	0.11	0.14	0.70	1.15	813
1.96	0.022	0.978	55.7	0.073	0.37	0.13	0.16	0.79	1.31	0.200
2.11	0.040	0.960	51.8	0.079	0.40	0.14	0.17	0.85	1.41	

2.32	0.077	0.923	47.1	0.086	0.44	0.15	0.19	0.94	1.55
2.74	0.148	0.852	39.9	0.102	0.52	0.18	0.22	1.11	1.84
2.93	0.177	0.823	37.3	0.109	0.55	0.19	0.24	1.18	1.96
3.26	0.221	0.779	33.5	0.122	0.61	0.21	0.27	1.32	2.18
3.53	0.254	0.746	30.9	0.132	0.67	0.23	0.29	1.43	2.36
3.84	0.286	0.714	28.4	0.143	0.72	0.25	0.31	1.55	2.57
4.20	0.319	0.681	26.0	0.157	0.79	0.27	0.34	1.70	2.81
4.56	0.348	0.652	24.0	0.170	0.86	0.29	0.37	1.84	3.05
4.97	0.374	0.626	22.0	0.185	0.94	0.32	0.41	2.01	3.33
5.44	0.397	0.603	20.1	0.203	1.02	0.35	0.44	2.20	3.64
5.91	0.417	0.583	18.5	0.220	1.11	0.38	0.48	2.39	3.96
6.47	0.439	0.561	16.9	0.241	1.22	0.42	0.53	2.61	4.33
7.04	0.458	0.542	15.5	0.262	1.33	0.45	0.57	2.85	4.72
7.67	0.475	0.525	14.2	0.286	1.45	0.50	0.63	3.10	5.14
8.40	0.490	0.510	13.0	0.313	1.58	0.54	0.69	3.39	5.63
9.15	0.503	0.497	11.9	0.341	1.72	0.59	0.75	3.70	6.13
10.00	0.517	0.483	10.9	0.373	1.88	0.65	0.82	4.04	6.70
10.91	0.529	0.471	10.0	0.407	2.06	0.70	0.89	4.41	7.31
12.00	0.544	0.456	9.10	0.447	2.26	0.78	0.98	4.85	8.04
12.99	0.557	0.443	8.41	0.484	2.45	0.84	1.06	5.25	8.70
14.27	0.571	0.429	7.65	0.532	2.69	0.92	1.16	5.77	9.56
15.56	0.584	0.416	7.02	0.580	2.93	1.01	1.27	6.29	10.4
16.94	0.595	0.406	6.45	0.632	3.19	1.09	1.38	6.85	11.3
18.55	0.607	0.393	5.89	0.692	3.49	1.20	1.51	7.50	12.4
20.32	0.619	0.382	5.38	0.758	3.83	1.31	1.66	8.21	13.6
22.25	0.631	0.370	4.91	0.830	4.19	1.44	1.82	8.99	14.9
24.32	0.642	0.358	4.49	0.907	4.58	1.57	1.98	9.83	16.3
26.60	0.654	0.346	4.11	0.992	5.01	1.72	2.17	10.8	17.8
28.99	0.667	0.334	3.77	1.081	5.46	1.87	2.37	11.7	19.4
31.90	0.679	0.321	3.42	1.189	6.01	2.06	2.60	12.9	21.4
35.14	0.693	0.307	3.11	1.310	6.62	2.27	2.87	14.2	23.5
38.59	0.704	0.296	2.83	1.439	7.27	2.49	3.15	15.6	25.8
42.43	0.716	0.284	2.57	1.582	7.99	2.74	3.46	17.1	28.4
45.86	0.728	0.272	2.38	1.710	8.64	2.96	3.74	18.5	30.7
50.60	0.740	0.260	2.16	1.886	9.53	3.27	4.13	20.4	33.9
54.69	0.750	0.250	2.00	2.039	10.3	3.53	4.46	22.1	36.6
59.86	0.760	0.240	1.82	2.232	11.3	3.87	4.88	24.2	40.1
65.71	0.772	0.228	1.66	2.450	12.4	4.24	5.36	26.6	44.0
71.74	0.783	0.217	1.52	2.675	13.5	4.63	5.85	29.0	48.1
77.86	0.791	0.209	1.40	2.903	14.7	5.03	6.35	31.5	52.2
85.75	0.801	0.199	1.27	3.197	16.2	5.54	7.00	34.7	57.4
93.64	0.811	0.189	1.17	3.491	17.6	6.05	7.64	37.8	62.7
101.68	0.821	0.179	1.07	3.791	19.2	6.57	8.30	41.2	68.1
111.98	0.832	0.168	0.975	4.175	21.1	7.23	9.14	45.3	75.0
121.70	0.841	0.159	0.898	4.537	22.9	7.86	9.93	49.1	81.5
133.85	0.851	0.149	0.816	4.990	25.2	8.65	10.9	54.1	89.5
145.76	0.859	0.141	0.749	5.434	27.5	9.42	11.9	59.0	97.7
159.69	0.868	0.132	0.684	5.954	30.1	10.3	13.0	64.6	107.
174.53	0.876	0.124	0.628	6.507	32.9	11.3	14.2	70.6	117.
190.06	0.883	0.117	0.575	7.066	35.8	12.3	15.5	76.8	127.
208.09	0.890	0.110	0.525	7.758	39.2	13.4	17.0	84.1	140.
228.16	0.896	0.104	0.479	8.506	43.0	14.7	18.6	92.2	153.
250.43	0.903	0.097	0.436	9.337	47.2	16.2	20.4	101.	167.
274.98	0.909	0.091	0.397	10.252	51.8	17.8	22.4	111.	184.
300.38	0.915	0.085	0.364	11.199	56.6	19.4	24.5	121.	201.
326.89	0.920	0.080	0.334	12.187	61.6	21.1	26.7	132.	219.
359.50	0.925	0.075	0.304	13.403	67.7	23.2	29.3	145.	241.
392.11	0.929	0.071	0.279	14.619	73.9	25.3	32.0	159.	263.
429.16	0.933	0.067	0.255	16.000	80.9	27.7	35.0	174.	287.
469.55	0.937	0.063	0.233	17.506	88.5	30.3	38.3	190.	314.
511.94	0.940	0.060	0.213	19.086	96.5	33.1	41.8	207.	343.
564.96	0.944	0.056	0.193	21.063	106.	36.5	46.1	227.	378.
620.04	0.947	0.053	0.176	23.117	117.	40.1	50.6	251.	415.
681.09	0.950	0.050	0.160	25.393	128.	44.	55.6	275.	456.
734.02	0.952	0.048	0.149	27.366	138.	47.4	59.9	296.	492.
802.95	0.955	0.045	0.136	29.938	151.	51.9	65.5	324.	538.
878.32	0.957	0.043	0.124	32.746	165.	56.7	71.7	354.	589.
961.21	0.959	0.041	0.114	35.836	181.	62.1	78.4	388.	644.
1093.16	0.962	0.038	0.100	40.756	206.	70.6	89.2	442.	732.
1187.15	0.964	0.036	0.092	44.260	224.	76.7	96.9	480.	796.
1288.19	0.966	0.034	0.085	48.027	243.	83.2	105.	521.	862.
1403.88	0.967	0.033	0.078	52.340	265.	90.7	115.	568.	944.
1524.88	0.969	0.031	0.072	56.851	287.	98.5	124.	616.	1020.
1670.75	0.970	0.030	0.065	62.290	315.	108.	136.	676.	1120.
1845.94	0.972	0.028	0.059	68.821	348.	119.	151.	746.	1240.
2006.45	0.973	0.027	0.054	74.806	378.	130.	164.	811.	1350.
2207.35	0.975	0.025	0.049	82.296	416.	143.	180.	892.	1480.
2405.54	0.976	0.024	0.045	89.685	453.	155.	196.	972.	1610.
2633.98	0.977	0.023	0.041	98.201	496.	170.	215.	1064.	1770.
2856.54	0.978	0.022	0.038	106.499	538.	185.	233.	1150.	1910.
3139.69	0.979	0.021	0.035	117.056	592.	203.	256.	1270.	2100.
3396.42	0.980	0.020	0.032	126.627	640.	219.	277.	1370.	2270.
3721.82	0.981	0.019	0.029	138.759	701.	240.	304.	1500.	2500.
4076.88	0.982	0.018	0.027	151.996	768.	263.	333.	1650.	2730.
4484.61	0.983	0.017	0.024	167.571	847.	290.	367.	1820.	3010.
4868.08	0.983	0.017	0.022	181.494	917.	314.	397.	1970.	3260.
5294.34	0.984	0.016	0.021	197.386	998.	342.	432.	2140.	3550.
5788.25	0.985	0.015	0.019	215.801	1090.	374.	472.	2340.	3880.
6348.76	0.986	0.015	0.017	236.698	1200.	410.	518.	2570.	4250.
6916.75	0.986	0.014	0.016	257.874	1300.	447.	564.	2790.	4630.
7582.32	0.987	0.013	0.014	282.688	1430.	490.	619.	3070.	5080.
8388.55	0.988	0.012	0.013	312.747	1580.	542.	684.	3390.	5620.
9092.58	0.988	0.012	0.012	338.995	1710.	587.	742.	3670.	6090.
9946.89	0.989	0.011	0.011	370.845	1870.	643.	812.	4010.	6670.
10903.76	0.989	0.011	0.010	406.520	2050.	704.	890.	4400.	7310.
11861.34	0.990	0.010	0.0092	442.221	2230.	766.	968.	4780.	7950.
12956.73	0.991	0.009	0.0084	483.060	2440.	837.	1060.	5230.	8700.
14248.70	0.991	0.009	0.0077	531.228	2680.	920.	1160.	5750.	9520.
15552.78	0.992	0.008	0.0070	579.847	2930.	1000.	1270.	6280.	10400.
17067.33	0.993	0.007	0.0064	636.314	3220.	1100.	1390.	6910.	11400.
18661.64	0.993	0.007	0.0059	695.754	3520.	1210.	1520.	7550.	12500.
20377.39	0.994	0.006	0.0054	759.721	3840.	1320.	1660.	8240.	13600.
22206.38	0.994	0.006	0.0049	827.910	4180.	1430.	1810.	8970.	14900.
24318.84	0.995	0.005	0.0045	906.668	4580.	1570.	1980.	9820.	16300.
26587.99	0.996	0.004	0.0041	991.268	5010.	1720.	2170.	10700.	17800.

29159.12	0.996	0.004	0.0037	1087.126	5490.	1880.	2380.	11800.	19500.	
32006.60	0.997	0.003	0.0034	1193.288	6030.	2070.	2610.	12900.	21400.	
35009.34	0.997	0.003	0.0031	1305.237	6600.	2260.	2860.	14200.	23500.	
38239.29	0.998	0.002	0.0029	1425.658	7200.	2470.	3120.	15400.	25600.	
42031.89	0.998	0.002	0.0026	1567.056	7920.	2720.	3430.	17000.	28200.	
45901.07	0.999	0.001	0.0024	1711.309	8650.	2970.	3740.	18600.	30700.	
49947.95	0.999	0.001	0.0022	1862.187	9410.	3230.	4070.	20200.	33400.	
54638.68	1.000	0.000	0.0020	2037.069	10290.	3530.	4460.	22100.	36600.	
59405.26	1.000	0.000	0.0018	2214.780	11190.	3840.	4850.	24000.	39800.	
1.51	0.000	1.000	72.3	0.060	0.28	0.10	0.12	0.61	1.01	8
1.72	0.000	1.000	63.5	0.068	0.32	0.11	0.14	0.70	1.15	977
1.96	0.000	1.000	55.7	0.078	0.37	0.13	0.16	0.79	1.31	0.211
2.11	0.000	1.000	51.8	0.084	0.40	0.14	0.17	0.85	1.41	
2.32	0.000	1.000	47.1	0.092	0.44	0.15	0.19	0.94	1.55	
2.74	0.000	1.000	39.9	0.109	0.52	0.18	0.22	1.11	1.84	
2.93	0.000	1.000	37.3	0.116	0.55	0.19	0.24	1.18	1.96	
3.26	0.000	1.000	33.5	0.130	0.61	0.21	0.27	1.32	2.18	
3.53	0.009	0.991	30.9	0.140	0.67	0.23	0.29	1.43	2.36	
3.84	0.028	0.972	28.4	0.153	0.72	0.25	0.31	1.55	2.57	
4.20	0.080	0.920	26.0	0.167	0.79	0.27	0.34	1.70	2.81	
4.56	0.142	0.858	24.0	0.181	0.86	0.29	0.37	1.84	3.05	
4.97	0.214	0.786	22.0	0.198	0.94	0.32	0.41	2.01	3.33	
5.44	0.301	0.699	20.1	0.216	1.02	0.35	0.44	2.20	3.64	
5.91	0.393	0.607	18.5	0.235	1.11	0.38	0.48	2.39	3.96	
6.47	0.488	0.512	16.9	0.257	1.22	0.42	0.53	2.61	4.33	
7.04	0.558	0.442	15.5	0.280	1.33	0.45	0.57	2.85	4.72	
7.67	0.618	0.382	14.2	0.305	1.45	0.50	0.63	3.10	5.14	
8.40	0.662	0.338	13.0	0.334	1.58	0.54	0.69	3.39	5.63	
9.15	0.693	0.307	11.9	0.364	1.72	0.59	0.75	3.70	6.13	
10.00	0.719	0.281	10.9	0.398	1.88	0.65	0.82	4.04	6.70	
10.91	0.739	0.261	10.0	0.434	2.06	0.70	0.89	4.41	7.31	
12.00	0.756	0.244	9.10	0.477	2.26	0.78	0.98	4.85	8.04	
12.99	0.768	0.232	8.41	0.516	2.45	0.84	1.06	5.25	8.70	
14.27	0.780	0.220	7.65	0.567	2.69	0.92	1.16	5.77	9.56	
15.56	0.790	0.210	7.02	0.619	2.93	1.01	1.27	6.29	10.4	
16.94	0.799	0.201	6.45	0.673	3.19	1.09	1.38	6.85	11.3	
18.55	0.808	0.192	5.89	0.737	3.49	1.20	1.51	7.50	12.4	
20.32	0.815	0.185	5.38	0.808	3.83	1.31	1.66	8.21	13.6	
22.25	0.822	0.178	4.91	0.885	4.19	1.44	1.82	8.99	14.9	
24.32	0.829	0.171	4.49	0.967	4.58	1.57	1.98	9.83	16.3	
26.60	0.835	0.165	4.11	1.058	5.01	1.72	2.17	10.8	17.8	
28.99	0.843	0.157	3.77	1.153	5.46	1.87	2.37	11.7	19.4	
31.90	0.849	0.151	3.42	1.268	6.01	2.06	2.60	12.9	21.4	
35.14	0.857	0.143	3.11	1.397	6.62	2.27	2.87	14.2	23.5	
38.59	0.863	0.137	2.83	1.534	7.27	2.49	3.15	15.6	25.8	
42.43	0.869	0.131	2.57	1.687	7.99	2.74	3.46	17.1	28.4	
45.86	0.874	0.126	2.38	1.823	8.64	2.96	3.74	18.5	30.7	
50.60	0.879	0.121	2.16	2.012	9.53	3.27	4.13	20.4	33.9	
54.69	0.883	0.117	2.00	2.174	10.3	3.53	4.46	22.1	36.6	
59.88	0.888	0.113	1.82	2.380	11.3	3.87	4.88	24.2	40.1	
65.71	0.892	0.108	1.66	2.612	12.4	4.24	5.36	26.6	44.0	
71.74	0.897	0.103	1.52	2.852	13.5	4.63	5.85	29.0	48.1	
77.86	0.901	0.099	1.40	3.095	14.7	5.03	6.35	31.5	52.2	
85.75	0.905	0.095	1.27	3.409	16.2	5.54	7.00	34.7	57.4	
93.64	0.909	0.091	1.17	3.723	17.6	6.05	7.64	37.8	62.7	
101.68	0.913	0.087	1.07	4.042	19.2	6.57	8.30	41.2	68.1	
111.98	0.916	0.084	0.975	4.452	21.1	7.23	9.14	45.3	75.0	
121.70	0.920	0.080	0.898	4.838	22.9	7.86	9.93	49.1	81.5	
133.85	0.924	0.076	0.816	5.321	25.2	8.65	10.9	54.1	89.5	
145.76	0.928	0.072	0.749	5.795	27.5	9.42	11.9	59.0	97.7	
159.69	0.931	0.069	0.684	6.349	30.1	10.3	13.0	64.6	107.	
174.53	0.934	0.066	0.626	6.939	32.9	11.3	14.2	70.6	117.	
190.06	0.937	0.063	0.575	7.556	35.8	12.3	15.5	76.8	127.	
208.09	0.940	0.060	0.525	8.273	39.2	13.4	17.0	84.1	140.	
228.16	0.943	0.057	0.479	9.071	43.0	14.7	18.6	92.2	153.	
250.43	0.946	0.054	0.436	9.956	47.2	16.2	20.4	101.	167.	
274.98	0.948	0.052	0.397	10.932	51.8	17.8	22.4	111.	184.	
300.38	0.951	0.049	0.364	11.942	56.6	19.4	24.5	121.	201.	
326.89	0.953	0.047	0.334	12.996	61.6	21.1	26.7	132.	219.	
359.50	0.955	0.045	0.304	14.293	67.7	23.2	29.3	145.	241.	
392.11	0.957	0.043	0.279	15.589	73.9	25.3	32.0	159.	263.	
429.16	0.959	0.041	0.255	17.062	80.9	27.7	35.0	174.	287.	
469.55	0.960	0.040	0.233	18.668	88.5	30.3	38.3	190.	314.	
511.94	0.962	0.038	0.213	20.353	96.5	33.1	41.8	207.	343.	
564.96	0.964	0.036	0.193	22.461	106.	36.5	46.1	227.	378.	
620.04	0.965	0.035	0.176	24.651	117.	40.1	50.6	251.	415.	
681.09	0.967	0.033	0.160	27.078	128.	44.	55.6	275.	456.	
734.02	0.968	0.032	0.149	29.182	138.	47.4	59.9	296.	492.	
802.95	0.969	0.031	0.136	31.923	151.	51.9	65.5	324.	538.	
878.32	0.970	0.030	0.124	34.919	165.	56.7	71.7	354.	589.	
961.21	0.971	0.029	0.114	38.214	181.	62.1	78.4	388.	644.	
1093.16	0.973	0.027	0.100	43.460	206.	70.6	89.2	442.	732.	
1187.15	0.974	0.026	0.092	47.197	224.	76.7	96.9	480.	796.	
1288.19	0.974	0.026	0.085	51.214	243.	83.2	105.	521.	862.	
1403.88	0.975	0.025	0.078	55.814	265.	90.7	115.	568.	944.	
1524.88	0.976	0.024	0.072	60.624	287.	98.5	124.	616.	1020.	
1670.75	0.977	0.023	0.065	66.423	315.	108.	136.	676.	1120.	
1845.94	0.978	0.022	0.059	73.388	348.	119.	151.	746.	1240.	
2006.45	0.979	0.021	0.054	79.770	378.	130.	164.	811.	1350.	
2207.35	0.979	0.021	0.049	87.757	416.	143.	180.	892.	1480.	
2405.54	0.980	0.020	0.045	95.636	453.	155.	196.	972.	1610.	
2633.98	0.981	0.019	0.041	104.718	496.	170.	215.	1064.	1770.	
2856.54	0.981	0.019	0.038	113.566	538.	185.	233.	1150.	1910.	
3139.69	0.982	0.018	0.035	124.823	592.	203.	256.	1270.	2100.	
3396.42	0.983	0.017	0.032	135.030	640.	219.	277.	1370.	2270.	
3721.82	0.984	0.016	0.029	147.967	701.	240.	304.	1500.	2500.	
4076.88	0.984	0.016	0.027	162.083	768.	263.	333.	1650.	2730.	
4494.61	0.985	0.015	0.024	178.691	847.	290.	367.	1820.	3010.	
4888.08	0.986	0.014	0.022	193.538	917.	314.	397.	1970.	3260.	
5294.34	0.986	0.014	0.021	210.485	998.	342.	432.	2140.	3550.	
5788.25	0.987	0.013	0.019	230.121	1090.	374.	472.	2340.	3880.	
6348.76	0.987	0.013	0.017	252.405	1200.	410.	518.	2570.	4250.	
6916.75	0.988	0.012	0.016	274.987	1300.	447.	564.	2790.	4630.	
7582.32	0.989	0.011	0.014	301.447	1430.	490.	619.	3070.	5080.	

8388.55	0.989	0.011	0.013	333.500	1580.	542.	684.	3390.	5620.
9092.58	0.990	0.010	0.012	361.490	1710.	587.	742.	3670.	6090.
9946.89	0.990	0.010	0.011	395.455	1870.	643.	812.	4010.	6670.
10903.76	0.991	0.009	0.010	433.497	2050.	704.	890.	4400.	7310.
11861.34	0.991	0.009	0.0092	471.567	2230.	766.	968.	4780.	7950.
12956.73	0.992	0.008	0.0084	515.116	2440.	837.	1060.	5230.	8700.
14248.70	0.993	0.007	0.0077	566.480	2680.	920.	1160.	5750.	9520.
15552.78	0.993	0.007	0.0070	618.326	2930.	1000.	1270.	6280.	10400.
17067.33	0.994	0.006	0.0064	678.540	3220.	1100.	1390.	6910.	11400.
18661.64	0.994	0.006	0.0059	741.924	3520.	1210.	1520.	7550.	12500.
20377.39	0.995	0.005	0.0054	810.136	3840.	1320.	1660.	8240.	13600.
22206.38	0.995	0.005	0.0049	882.851	4180.	1430.	1810.	8970.	14900.
24318.84	0.996	0.004	0.0045	966.835	4580.	1570.	1980.	9820.	16300.
26587.99	0.996	0.004	0.0041	1057.049	5010.	1720.	2170.	10700.	17800.
29159.12	0.997	0.003	0.0037	1159.268	5490.	1880.	2380.	11800.	19500.
32006.60	0.997	0.003	0.0034	1272.475	6030.	2070.	2610.	12900.	21400.
35009.34	0.998	0.002	0.0031	1391.853	6600.	2260.	2860.	14200.	23500.
38239.29	0.998	0.002	0.0029	1520.265	7200.	2470.	3120.	15400.	25600.
42031.89	0.999	0.001	0.0026	1671.046	7920.	2720.	3430.	17000.	28200.
45901.07	0.999	0.001	0.0024	1824.872	8650.	2970.	3740.	18600.	30700.
49947.95	0.999	0.001	0.0022	1985.762	9410.	3230.	4070.	20200.	33400.
54838.68	1.000	0.000	0.0020	2172.250	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	2361.753	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.122	0.28	0.10	0.12	0.61	1.01	9
1.72	0.013	0.987	63.5	0.139	0.32	0.11	0.14	0.70	1.15	4490
1.96	0.060	0.940	55.7	0.158	0.37	0.13	0.16	0.79	1.31	0.236
2.11	0.128	0.872	51.8	0.170	0.40	0.14	0.17	0.85	1.41	
2.32	0.265	0.735	47.1	0.187	0.44	0.15	0.19	0.94	1.55	
2.74	0.478	0.522	39.9	0.221	0.52	0.18	0.22	1.11	1.84	
2.93	0.520	0.480	37.3	0.236	0.55	0.19	0.24	1.18	1.96	
3.26	0.575	0.425	33.5	0.263	0.61	0.21	0.27	1.32	2.18	
3.53	0.607	0.393	30.9	0.284	0.67	0.23	0.29	1.43	2.36	
3.84	0.631	0.369	28.4	0.309	0.72	0.25	0.31	1.55	2.57	
4.20	0.653	0.347	26.0	0.338	0.79	0.27	0.34	1.70	2.81	
4.56	0.669	0.331	24.0	0.367	0.86	0.29	0.37	1.84	3.05	
4.97	0.683	0.317	22.0	0.400	0.94	0.32	0.41	2.01	3.33	
5.44	0.696	0.304	20.1	0.438	1.02	0.35	0.44	2.20	3.64	
5.91	0.707	0.293	18.5	0.476	1.11	0.38	0.48	2.39	3.96	
6.47	0.718	0.283	16.9	0.521	1.22	0.42	0.53	2.61	4.33	
7.04	0.726	0.274	15.5	0.567	1.33	0.45	0.57	2.85	4.72	
7.67	0.734	0.266	14.2	0.618	1.45	0.50	0.63	3.10	5.14	
8.40	0.742	0.258	13.0	0.676	1.58	0.54	0.69	3.39	5.63	
9.15	0.752	0.248	11.9	0.737	1.72	0.59	0.75	3.70	6.13	
10.00	0.760	0.240	10.9	0.805	1.88	0.65	0.82	4.04	6.70	
10.91	0.768	0.232	10.0	0.879	2.06	0.70	0.89	4.41	7.31	
12.00	0.777	0.223	9.10	0.966	2.26	0.78	0.98	4.85	8.04	
12.99	0.784	0.216	8.41	1.046	2.45	0.84	1.06	5.25	8.70	
14.27	0.792	0.208	7.65	1.149	2.69	0.92	1.16	5.77	9.56	
15.56	0.800	0.200	7.02	1.253	2.93	1.01	1.27	6.29	10.4	
16.94	0.807	0.193	6.45	1.364	3.19	1.09	1.38	6.85	11.3	
18.55	0.816	0.184	5.89	1.494	3.49	1.20	1.51	7.50	12.4	
20.32	0.824	0.176	5.38	1.636	3.83	1.31	1.66	8.21	13.6	
22.25	0.832	0.168	4.91	1.792	4.19	1.44	1.82	8.99	14.9	
24.32	0.839	0.161	4.49	1.959	4.58	1.57	1.98	9.83	16.3	
26.60	0.846	0.154	4.11	2.142	5.01	1.72	2.17	10.8	17.8	
28.99	0.853	0.147	3.77	2.335	5.46	1.87	2.37	11.7	19.4	
31.90	0.859	0.141	3.42	2.569	6.01	2.06	2.60	12.9	21.4	
35.14	0.866	0.134	3.11	2.830	6.62	2.27	2.87	14.2	23.5	
38.59	0.873	0.127	2.83	3.108	7.27	2.49	3.15	15.6	25.8	
42.43	0.880	0.120	2.57	3.417	7.99	2.74	3.46	17.1	28.4	
45.86	0.885	0.115	2.38	3.693	8.64	2.96	3.74	18.5	30.7	
50.60	0.891	0.109	2.16	4.075	9.53	3.27	4.13	20.4	33.9	
54.69	0.895	0.105	2.00	4.404	10.3	3.53	4.46	22.1	36.6	
59.86	0.900	0.100	1.82	4.821	11.3	3.87	4.88	24.2	40.1	
65.71	0.906	0.094	1.66	5.292	12.4	4.24	5.36	26.6	44.0	
71.74	0.911	0.089	1.52	5.778	13.5	4.63	5.85	29.0	48.1	
77.86	0.916	0.084	1.40	6.270	14.7	5.03	6.35	31.5	52.2	
85.75	0.921	0.079	1.27	6.906	16.2	5.54	7.00	34.7	57.4	
93.64	0.926	0.074	1.17	7.541	17.6	6.05	7.64	37.8	62.7	
101.68	0.930	0.070	1.07	8.189	19.2	6.57	8.30	41.2	68.1	
111.98	0.935	0.065	0.975	9.018	21.1	7.23	9.14	45.3	75.0	
121.70	0.939	0.061	0.898	9.801	22.9	7.86	9.93	49.1	81.5	
133.85	0.943	0.057	0.816	10.780	25.2	8.65	10.9	54.1	89.5	
145.76	0.946	0.054	0.749	11.739	27.5	9.42	11.9	59.0	97.7	
159.69	0.950	0.050	0.684	12.861	30.1	10.3	13.0	64.6	107.	
174.53	0.953	0.047	0.626	14.056	32.9	11.3	14.2	70.6	117.	
190.06	0.956	0.044	0.575	15.306	35.8	12.3	15.5	76.8	127.	
208.09	0.959	0.041	0.525	16.758	39.2	13.4	17.0	84.1	140.	
228.18	0.962	0.038	0.479	18.375	43.0	14.7	18.6	92.2	153.	
250.43	0.964	0.036	0.436	20.168	47.2	16.2	20.4	101.	167.	
274.98	0.967	0.033	0.397	22.145	51.8	17.8	22.4	111.	184.	
300.38	0.969	0.031	0.364	24.191	56.6	19.4	24.5	121.	201.	
326.89	0.971	0.029	0.334	26.326	61.6	21.1	26.7	132.	219.	
359.50	0.973	0.027	0.304	28.952	67.7	23.2	29.3	145.	241.	
392.11	0.975	0.025	0.279	31.578	73.9	25.3	32.0	159.	263.	
429.16	0.977	0.023	0.255	34.562	80.9	27.7	35.0	174.	287.	
469.55	0.978	0.022	0.233	37.815	88.5	30.3	38.3	190.	314.	
511.94	0.980	0.021	0.213	41.229	96.5	33.1	41.8	207.	343.	
564.96	0.981	0.019	0.193	45.499	106.	36.5	46.1	227.	378.	
620.04	0.982	0.018	0.176	49.935	117.	40.1	50.6	251.	415.	
681.09	0.983	0.017	0.160	54.851	128.	44.	55.6	275.	456.	
734.02	0.984	0.016	0.149	59.114	138.	47.4	59.9	296.	492.	
802.95	0.985	0.015	0.136	64.665	151.	51.9	65.5	324.	538.	
878.32	0.985	0.015	0.124	70.735	165.	56.7	71.7	354.	589.	
961.21	0.986	0.014	0.114	77.411	181.	62.1	78.4	388.	644.	
1093.16	0.987	0.013	0.100	88.037	206.	70.6	89.2	442.	732.	
1187.15	0.988	0.012	0.092	95.607	224.	76.7	96.9	480.	796.	
1288.19	0.988	0.012	0.085	103.744	243.	83.2	105.	521.	862.	
1403.88	0.989	0.011	0.078	113.061	265.	90.7	115.	568.	944.	
1524.88	0.989	0.011	0.072	122.806	287.	98.5	124.	616.	1020.	
1670.75	0.990	0.010	0.065	134.553	315.	108.	136.	676.	1120.	
1845.94	0.990	0.010	0.059	148.662	348.	119.	151.	746.	1240.	
2006.45	0.991	0.009	0.054	161.589	378.	130.	164.	811.	1350.	
2207.35	0.991	0.009	0.049	177.768	416.	143.	180.	892.	1480.	

2405.54	0.991	0.009	0.045	193.729	453.	155.	196.	972.	1610.
2633.98	0.992	0.008	0.041	212.126	496.	170.	215.	1064.	1770.
2856.54	0.992	0.008	0.038	230.050	538.	185.	233.	1150.	1910.
3139.69	0.993	0.007	0.035	252.854	592.	203.	256.	1270.	2100.
3396.42	0.993	0.007	0.032	273.529	640.	219.	277.	1370.	2270.
3721.82	0.993	0.007	0.029	299.735	701.	240.	304.	1500.	2500.
4076.88	0.993	0.007	0.027	328.330	768.	263.	333.	1650.	2730.
4494.61	0.994	0.006	0.024	361.972	847.	290.	367.	1820.	3010.
4868.08	0.994	0.006	0.022	392.049	917.	314.	397.	1970.	3260.
5294.34	0.994	0.006	0.021	426.377	998.	342.	432.	2140.	3550.
5788.25	0.995	0.005	0.019	466.154	1090.	374.	472.	2340.	3880.
6348.76	0.995	0.005	0.017	511.295	1200.	410.	518.	2570.	4250.
6916.75	0.995	0.005	0.016	557.038	1300.	447.	564.	2790.	4630.
7582.32	0.996	0.004	0.014	610.639	1430.	490.	619.	3070.	5080.
8388.55	0.996	0.004	0.013	675.568	1580.	542.	684.	3390.	5620.
9092.58	0.996	0.004	0.012	732.267	1710.	587.	742.	3670.	6090.
9946.89	0.996	0.004	0.011	801.069	1870.	643.	812.	4010.	6670.
10903.76	0.997	0.003	0.010	878.130	2050.	704.	890.	4400.	7310.
11861.34	0.997	0.003	0.0092	955.248	2230.	766.	968.	4780.	7950.
12956.73	0.997	0.003	0.0084	1043.465	2440.	837.	1060.	5230.	8700.
14248.70	0.998	0.002	0.0077	1147.513	2680.	920.	1160.	5750.	9520.
15552.78	0.998	0.002	0.0070	1252.537	2930.	1000.	1270.	6280.	10400.
17067.33	0.998	0.002	0.0064	1374.510	3220.	1100.	1390.	6910.	11400.
18661.64	0.998	0.002	0.0059	1502.907	3520.	1210.	1520.	7550.	12500.
20377.39	0.998	0.002	0.0054	1641.085	3840.	1320.	1660.	8240.	13600.
22206.38	0.999	0.001	0.0049	1788.382	4180.	1430.	1810.	8970.	14900.
24318.84	0.999	0.001	0.0045	1958.508	4580.	1570.	1980.	9820.	16300.
26587.99	0.999	0.001	0.0041	2141.253	5010.	1720.	2170.	10700.	17800.
29159.12	0.999	0.001	0.0037	2348.318	5490.	1880.	2380.	11800.	19500.
32006.60	0.999	0.001	0.0034	2577.638	6030.	2070.	2610.	12900.	21400.
35009.34	0.999	0.001	0.0031	2819.463	6600.	2260.	2860.	14200.	23500.
38239.29	1.000	0.000	0.0029	3079.585	7200.	2470.	3120.	15400.	25600.
42031.89	1.000	0.000	0.0026	3385.021	7920.	2720.	3430.	17000.	28200.
45901.07	1.000	0.000	0.0024	3696.624	8650.	2970.	3740.	18600.	30700.
49947.95	1.000	0.000	0.0022	4022.537	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	4400.303	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	4784.178	11190.	3840.	4850.	24000.	39800.

1.51	0.000	1.000	72.3	0.072	0.28	0.10	0.12	0.61	1.01	10
1.72	0.000	1.000	63.5	0.081	0.32	0.11	0.14	0.70	1.15	1350
1.96	0.000	1.000	55.7	0.093	0.37	0.13	0.16	0.79	1.31	0.205
2.11	0.000	1.000	51.8	0.100	0.40	0.14	0.17	0.85	1.41	
2.32	0.020	0.980	47.1	0.110	0.44	0.15	0.19	0.94	1.55	
2.74	0.121	0.879	39.9	0.130	0.52	0.18	0.22	1.11	1.84	
2.93	0.167	0.833	37.3	0.139	0.55	0.19	0.24	1.18	1.96	
3.26	0.243	0.757	33.5	0.154	0.61	0.21	0.27	1.32	2.18	
3.53	0.305	0.695	30.9	0.167	0.67	0.23	0.29	1.43	2.36	
3.84	0.361	0.639	28.4	0.182	0.72	0.25	0.31	1.55	2.57	
4.20	0.414	0.586	26.0	0.199	0.79	0.27	0.34	1.70	2.81	
4.56	0.457	0.543	24.0	0.216	0.86	0.29	0.37	1.84	3.05	
4.97	0.497	0.503	22.0	0.235	0.94	0.32	0.41	2.01	3.33	
5.44	0.532	0.468	20.1	0.258	1.02	0.35	0.44	2.20	3.64	
5.91	0.560	0.440	18.5	0.280	1.11	0.38	0.48	2.39	3.96	
6.47	0.585	0.415	16.9	0.308	1.22	0.42	0.53	2.61	4.33	
7.04	0.607	0.393	15.5	0.333	1.33	0.45	0.57	2.85	4.72	
7.67	0.627	0.373	14.2	0.363	1.45	0.50	0.63	3.10	5.14	
8.40	0.646	0.354	13.0	0.398	1.58	0.54	0.69	3.39	5.63	
9.15	0.661	0.339	11.9	0.433	1.72	0.59	0.75	3.70	6.13	
10.00	0.675	0.325	10.9	0.474	1.88	0.65	0.82	4.04	6.70	
10.91	0.687	0.313	10.0	0.517	2.06	0.70	0.89	4.41	7.31	
12.00	0.699	0.301	9.10	0.568	2.26	0.78	0.98	4.85	8.04	
12.99	0.708	0.292	8.41	0.615	2.45	0.84	1.06	5.25	8.70	
14.27	0.719	0.281	7.65	0.676	2.69	0.92	1.16	5.77	9.56	
15.56	0.728	0.272	7.02	0.737	2.93	1.01	1.27	6.29	10.4	
16.94	0.736	0.264	6.45	0.802	3.19	1.09	1.38	6.85	11.3	
18.55	0.745	0.255	5.89	0.878	3.49	1.20	1.51	7.50	12.4	
20.32	0.754	0.246	5.38	0.962	3.83	1.31	1.66	8.21	13.6	
22.25	0.763	0.237	4.91	1.054	4.19	1.44	1.82	8.99	14.9	
24.32	0.772	0.228	4.49	1.152	4.58	1.57	1.98	9.83	16.3	
26.60	0.780	0.220	4.11	1.260	5.01	1.72	2.17	10.8	17.8	
28.99	0.789	0.211	3.77	1.373	5.46	1.87	2.37	11.7	19.4	
31.90	0.796	0.204	3.42	1.511	6.01	2.06	2.60	12.9	21.4	
35.14	0.805	0.195	3.11	1.664	6.62	2.27	2.87	14.2	23.5	
38.59	0.814	0.186	2.83	1.827	7.27	2.49	3.15	15.6	25.8	
42.43	0.822	0.178	2.57	2.009	7.99	2.74	3.46	17.1	28.4	
45.86	0.829	0.172	2.38	2.172	8.64	2.96	3.74	18.5	30.7	
50.60	0.838	0.162	2.16	2.396	9.53	3.27	4.13	20.4	33.9	
54.69	0.844	0.156	2.00	2.590	10.3	3.53	4.46	22.1	36.6	
59.86	0.852	0.148	1.82	2.835	11.3	3.87	4.88	24.2	40.1	
65.71	0.860	0.141	1.66	3.112	12.4	4.24	5.36	26.6	44.0	
71.74	0.866	0.134	1.52	3.397	13.5	4.63	5.85	29.0	48.1	
77.86	0.872	0.128	1.40	3.687	14.7	5.03	6.35	31.5	52.2	
85.75	0.879	0.121	1.27	4.061	16.2	5.54	7.00	34.7	57.4	
93.64	0.885	0.115	1.17	4.434	17.6	6.05	7.64	37.8	62.7	
101.68	0.890	0.110	1.07	4.815	19.2	6.57	8.30	41.2	68.1	
111.98	0.895	0.105	0.975	5.303	21.1	7.23	9.14	45.3	75.0	
121.70	0.900	0.100	0.898	5.763	22.9	7.86	9.93	49.1	81.5	
133.85	0.905	0.095	0.816	6.338	25.2	8.65	10.9	54.1	89.5	
145.76	0.910	0.090	0.749	6.902	27.5	9.42	11.9	59.0	97.7	
159.69	0.915	0.085	0.684	7.562	30.1	10.3	13.0	64.6	107.	
174.53	0.919	0.081	0.626	8.265	32.9	11.3	14.2	70.6	117.	
190.06	0.924	0.076	0.575	9.000	35.8	12.3	15.5	76.8	127.	
208.09	0.928	0.072	0.525	9.854	39.2	13.4	17.0	84.1	140.	
228.16	0.932	0.068	0.479	10.804	43.0	14.7	18.6	92.2	153.	
250.43	0.935	0.065	0.436	11.859	47.2	16.2	20.4	101.	167.	
274.98	0.939	0.061	0.397	13.021	51.8	17.8	22.4	111.	184.	
300.38	0.942	0.058	0.364	14.224	56.6	19.4	24.5	121.	201.	
326.89	0.945	0.055	0.334	15.479	61.6	21.1	26.7	132.	219.	
359.50	0.947	0.053	0.304	17.024	67.7	23.2	29.3	145.	241.	
392.11	0.950	0.050	0.279	18.568	73.9	25.3	32.0	159.	263.	
429.16	0.952	0.048	0.255	20.322	80.9	27.7	35.0	174.	287.	
469.55	0.954	0.046	0.233	22.235	88.5	30.3	38.3	190.	314.	
511.94	0.956	0.044	0.213	24.242	96.5	33.1	41.8	207.	343.	
564.96	0.958	0.042	0.193	26.753	106.	36.5	46.1	227.	378.	
620.04	0.960	0.040	0.176	29.361	117.	40.1	50.6	251.	415.	

681.09	0.962	0.038	0.160	32.252	128.	44.	55.6	275.	456.
734.02	0.964	0.037	0.149	34.759	138.	47.4	59.9	296.	492.
802.95	0.965	0.035	0.136	38.023	151.	51.9	65.5	324.	538.
878.32	0.966	0.034	0.124	41.592	165.	56.7	71.7	354.	589.
961.21	0.968	0.032	0.114	45.517	181.	62.1	78.4	388.	644.
1093.16	0.969	0.031	0.100	51.765	206.	70.6	89.2	442.	732.
1187.15	0.971	0.029	0.092	56.216	224.	76.7	96.9	480.	796.
1288.19	0.972	0.028	0.085	61.001	243.	83.2	105.	521.	862.
1403.88	0.973	0.027	0.078	66.479	265.	90.7	115.	568.	944.
1524.88	0.974	0.026	0.072	72.209	287.	98.5	124.	616.	1020.
1670.75	0.975	0.025	0.065	79.116	315.	108.	136.	676.	1120.
1845.94	0.976	0.024	0.059	87.412	348.	119.	151.	746.	1240.
2006.45	0.977	0.023	0.054	95.013	378.	130.	164.	811.	1350.
2207.35	0.978	0.022	0.049	104.526	416.	143.	180.	892.	1480.
2405.54	0.979	0.021	0.045	113.912	453.	155.	196.	972.	1610.
2633.98	0.980	0.020	0.041	124.729	496.	170.	215.	1064.	1770.
2856.54	0.981	0.019	0.038	135.268	538.	185.	233.	1150.	1910.
3139.69	0.982	0.018	0.035	148.676	592.	203.	256.	1270.	2100.
3396.42	0.982	0.018	0.032	160.833	640.	219.	277.	1370.	2270.
3721.82	0.983	0.017	0.029	176.242	701.	240.	304.	1500.	2500.
4076.88	0.984	0.016	0.027	193.056	768.	263.	333.	1650.	2730.
4494.61	0.985	0.015	0.024	212.837	847.	290.	367.	1820.	3010.
4868.08	0.985	0.015	0.022	230.522	917.	314.	397.	1970.	3260.
5294.34	0.986	0.014	0.021	250.707	998.	342.	432.	2140.	3550.
5788.25	0.987	0.013	0.019	274.096	1090.	374.	472.	2340.	3880.
6348.76	0.987	0.013	0.017	300.638	1200.	410.	518.	2570.	4250.
6916.75	0.988	0.012	0.016	327.535	1300.	447.	564.	2790.	4630.
7582.32	0.989	0.011	0.014	359.052	1430.	490.	619.	3070.	5080.
8388.55	0.989	0.011	0.013	397.230	1580.	542.	684.	3390.	5620.
9092.58	0.990	0.010	0.012	430.568	1710.	587.	742.	3670.	6090.
9946.89	0.990	0.010	0.011	471.023	1870.	643.	812.	4010.	6670.
10903.76	0.991	0.009	0.010	516.335	2050.	704.	890.	4400.	7310.
11861.34	0.992	0.008	0.0092	561.880	2230.	766.	968.	4780.	7950.
12956.73	0.992	0.008	0.0084	613.551	2440.	837.	1060.	5230.	8700.
14248.70	0.993	0.007	0.0077	674.730	2680.	920.	1160.	5750.	9520.
15552.78	0.993	0.007	0.0070	736.484	2930.	1000.	1270.	6280.	10400.
17067.33	0.994	0.006	0.0064	808.203	3220.	1100.	1390.	6910.	11400.
18661.84	0.994	0.006	0.0059	883.700	3520.	1210.	1520.	7550.	12500.
20377.39	0.995	0.005	0.0054	964.947	3840.	1320.	1660.	8240.	13600.
22206.38	0.995	0.005	0.0049	1051.557	4180.	1430.	1810.	8970.	14900.
24318.84	0.996	0.004	0.0045	1151.590	4580.	1570.	1980.	9820.	16300.
26587.99	0.996	0.004	0.0041	1259.043	5010.	1720.	2170.	10700.	17800.
29159.12	0.997	0.003	0.0037	1380.796	5490.	1880.	2380.	11800.	19500.
32006.60	0.997	0.003	0.0034	1515.635	6030.	2070.	2610.	12900.	21400.
35009.34	0.998	0.002	0.0031	1657.826	6600.	2260.	2860.	14200.	23500.
38239.29	0.998	0.002	0.0029	1810.777	7200.	2470.	3120.	15400.	25600.
42031.89	0.998	0.002	0.0026	1990.371	7920.	2720.	3430.	17000.	28200.
45901.07	0.999	0.001	0.0024	2173.591	8650.	2970.	3740.	18600.	30700.
49947.95	0.999	0.001	0.0022	2365.227	9410.	3230.	4070.	20200.	33400.
54638.68	1.000	0.000	0.0020	2587.351	10290.	3530.	4460.	22100.	36600.
59405.26	1.000	0.000	0.0018	2813.066	11190.	3840.	4850.	24000.	39800.

Conversion Parameters

	air/Hg	air/water	air/oil	oil/water
Mercury Contact Angle	140			
Mercury IFT	485			
Laboratory Contact Angle		0	0	30
Laboratory IFT		70	24	35
Reservoir Contact Angle		0		30
Reservoir IFT		50		25
Laboratory TcosTheta		70	24	30.3
Reservoir TcosTheta		50		21.7

Fluid Density Gradients

Water:	0.433
Oil:	0.346
Gas:	0.100

IFT * Cosine Contact Angle: 371.5

0.00000	0
0.00010	0
0.00100	0
0.00500	12
0.01000	19
0.05000	38
0.10000	46
0.50	63
1.0	71
5.0	89
10.0	96
50	113
100	117
1000	117

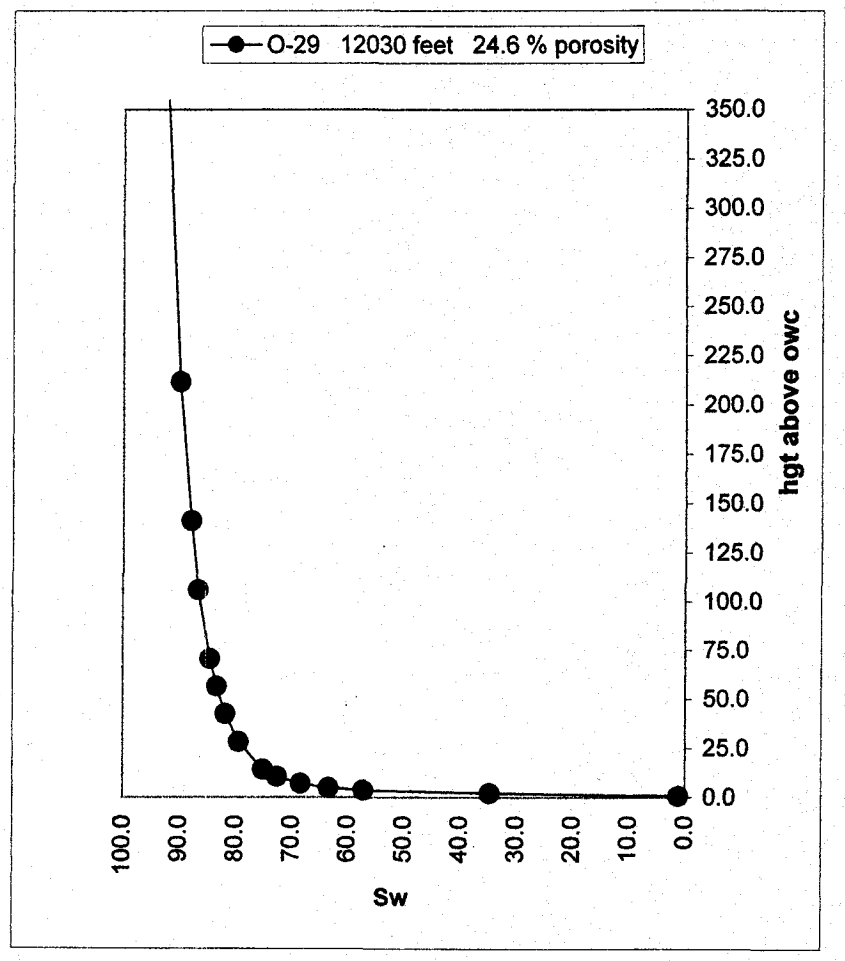
PSD HISTOGRAM

Pore Throat Radius, μm	Saturation fraction	frequency fraction
< 0.0018	1.000	0.160
0.0018	0.840	0.030
0.0025	0.810	0.042
0.0050	0.768	0.022
0.0070	0.747	0.024
0.010	0.723	0.049
0.025	0.674	0.044
0.050	0.630	0.031
0.075	0.599	0.017
0.10	0.583	0.090
0.25	0.493	0.265
0.50	0.229	0.118
0.73	0.110	0.110
1.0	0.000	0.000
2.5	0.000	0.000
5.0	0.000	0.000
7.5	0.000	0.000
10.0	0.000	0.000
25.0	0.000	0.000
50.0	0.000	0.000
75.0	0.000	0.000
100.	0.000	0.000

Well O-29 O-29 12030 feet 24.6 % porosity
depth 12030
sample # 3C-1
date Mar-88
phi 24.6

prs	wetting phase	% filled	Eq Prs Res	takes this ft of hc column to disp water in pore hgt	pore throat size microns
1	98.8	1.2	0.07	0.7	735.4
3	65.3	34.7	0.21	2.1	245.1
5	42.8	57.2	0.35	3.5	147.1
7	36.6	63.4	0.49	4.9	105.1
10	31.6	68.4	0.71	7.1	73.5
15	27.4	72.6	1.06	10.6	49.0
20	24.9	75.1	1.41	14.1	36.8
40	20.6	79.4	2.83	28.3	18.4
60	18.2	81.8	4.24	42.4	12.3
80	16.7	83.3	5.65	56.5	9.2
100	15.5	84.5	7.07	70.7	7.4
150	13.4	86.6	10.60	106.0	4.9
200	12.1	87.9	14.13	141.3	3.7
300	10.1	89.9	21.20	212.0	2.5
500	7.9	92.1	35.33	353.3	1.5
750	6	93.3	52.99	529.9	1.0
1000	5.9	94	70.66	706.6	0.7
1250	5.2	94.1	88.32	883.2	0.6
1500	5	94.8	105.99	1059.9	0.5
1800	4.7	95	127.18	1271.8	0.4
2000	100	95.3	141.31	1413.1	0.4

10199.3	0.012	0.988
10197.9	0.347	0.653
10196.5	0.572	0.428
10195.1	0.634	0.366
10192.9	0.684	0.316
10189.4	0.726	0.274
10185.9	0.751	0.249
10171.7	0.794	0.206
10157.6	0.818	0.182
10143.5	0.833	0.167
10129.3	0.845	0.155
10094.0	0.866	0.134
10058.7	0.879	0.121
9988.0	0.899	0.101
9846.7	0.921	0.079
9670.1	0.933	0.06
9493.4	0.94	0.059
9316.8	0.941	0.052
9140.1	0.948	0.05
8928.2	0.95	0.047
8786.9	0.953	1



Search by Well

Search by API

DUCK IS UNIT SDI #3-05/O29

API	50029216240000	Permit	1861300	Operating Elevation	55.800000000
Operator	BP EXPLORATION (ALASKA) INC	Permit Date	6/26/1986	Operating Datum	KB
Well Name	DUCK IS UNIT SDI #3-05/O29	Status	1-OIL	Elevation	41
Basin Name	ARCTIC SLOPE	Spud Date	7/9/1986	Total Depth	12714
Lease	0047502	Completion Date	8/19/1986	Total Vertical Depth	10554
Field/Pool Name	ENDI, ENDICOTT	Initial/Final Class	DEV/SER		

	Meridian --- Lat:Long --- Section:Township:Range --- Footage to N/S and E/W Line
Surface	Umiat --- 70.3224146519145:-147.865167633727 --- 8:11N:17E --- 2533=>N 858=>E
Bottom	Umiat --- 70.3378776570841:-147.884552635908 --- 5:11N:17E --- 2384=>N 3301=>E

PRINT

Print Page

Print Details to Screen

EXIT

Summary of Materials Available

TYPE	API	TOP	BOTTOM	RECORDS
CORE CHIPS	50029216240000	11953	12636	3

OMNI Laboratories, Inc.

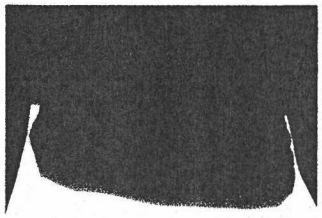
OMNI LABORATORIES, INC.
X-RAY DIFFRACTION
(WEIGHT %)

Client: BP Alaska
Well: TERN3 OCS-Y-197
Area: Offshore, Alaska
Sample Type: Conventional Core

File No: H-35309
Date: 07/05/06
Analyst: G. Walker

Sample Number	Sample Depth (ft)	CLAYS				CARBONATES			OTHER MINERALS						TOTALS		
		Chlorite	Kaolinite	Illite	Mx I/S*	Calcite[1]	Dol/Ank	Siderite	Quartz	K-spar	Plag.	Pyrite	Zeolite	Barite	Clays	Carb.	Other
1	12977.25	Tr	3	Tr	Tr	0	0	0	94	1	1	1	0	0	3	0	97
2	12979.85	Tr	2	Tr	Tr	0	0	0	94	1	1	2	0	0	2	0	98
3	12989.30	Tr	2	1	1	0	0	0	94	1	1	Tr	0	0	4	0	96
4	13174.00	Tr	1	Tr	1	0	0	0	96	1	1	Tr	0	0	2	0	98
5	13176.55	Tr	1	Tr	Tr	0	0	0	97	1	1	Tr	0	0	1	0	99
6	13177.80	Tr	1	1	1	0	0	0	95	1	1	Tr	0	0	3	0	97
7	13182.90	Tr	1	1	Tr	0	0	0	94	1	1	2	0	0	2	0	98
8	13187.85	Tr	1	1	1	0	0	0	95	1	1	Tr	0	0	3	0	97
9	13216.55	Tr	1	Tr	Tr	0	0	0	96	1	1	1	0	0	1	0	99
10	13221.35	Tr	1	1	1	0	0	0	95	1	1	Tr	0	0	3	0	97
	AVERAGE	Tr	1	Tr	1	0	0	0	95	1	1	1	0	0	2	0	98

* Randomly interstratified mixed-layer illite/smectite
[1] May include the Fe-rich variety



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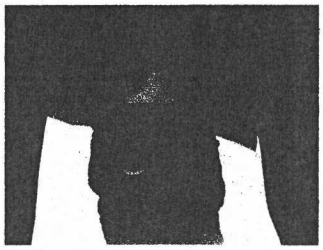

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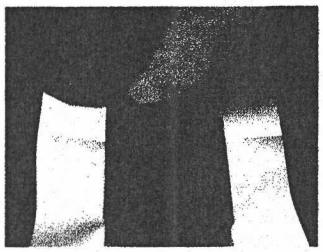

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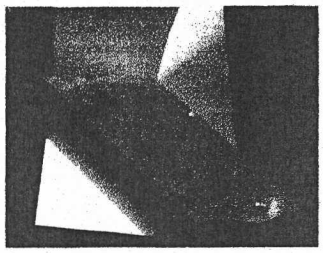

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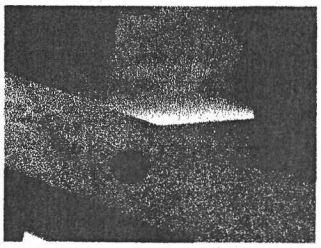

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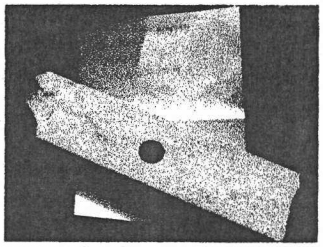

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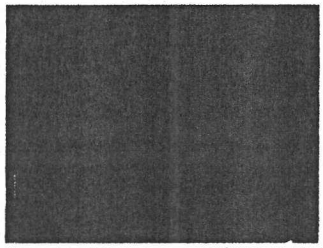

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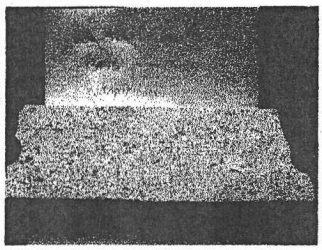

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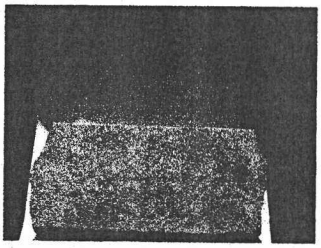

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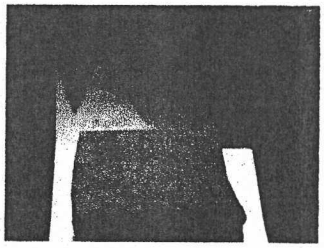

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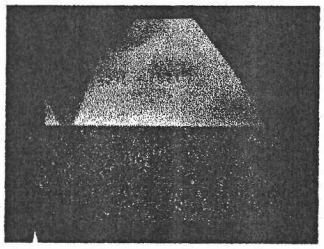

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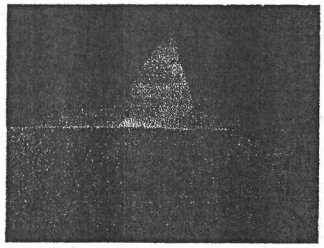

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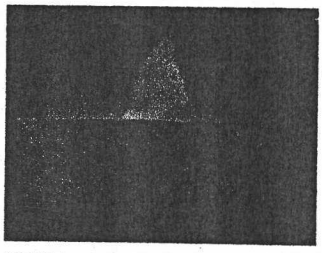

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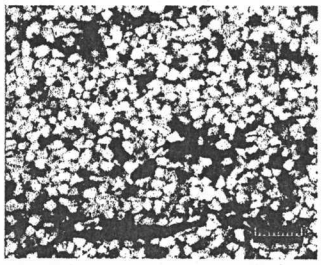

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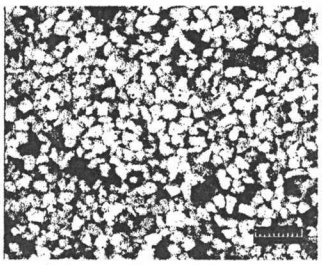

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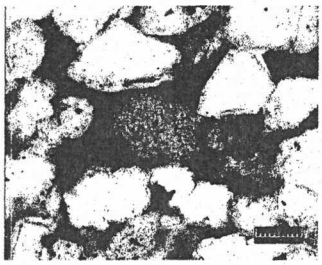

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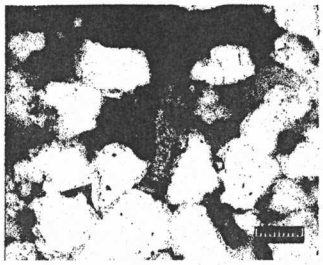

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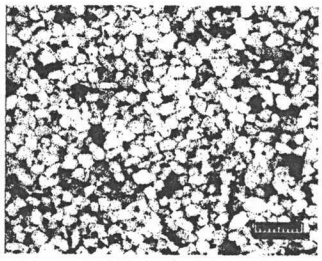

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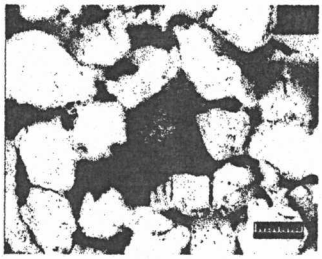

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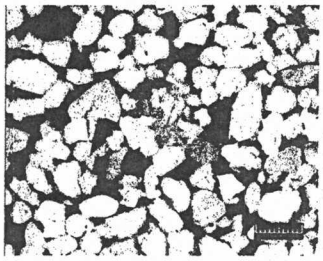

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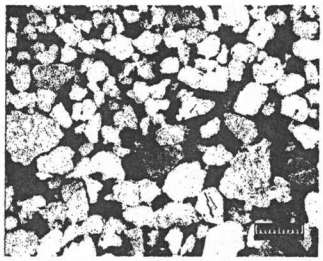

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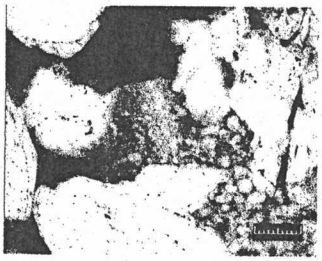

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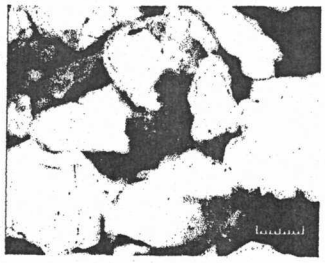

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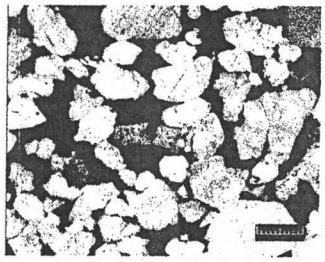

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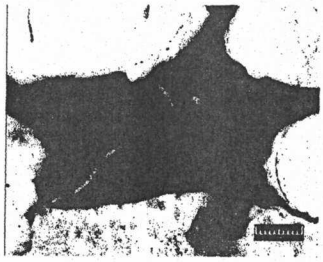

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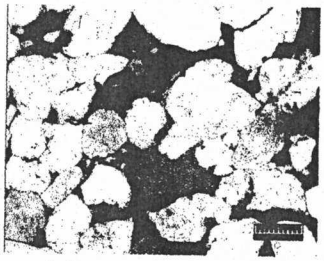

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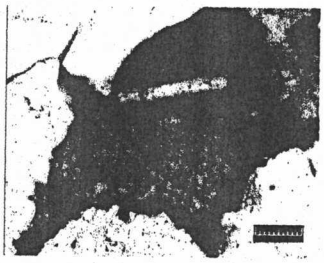

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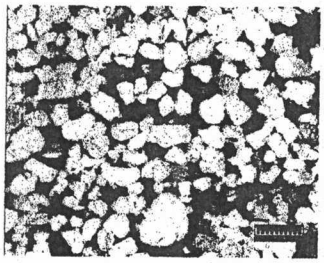

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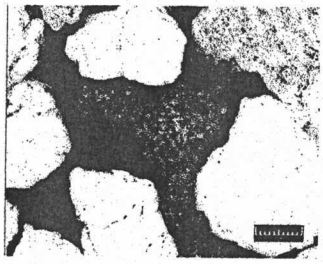

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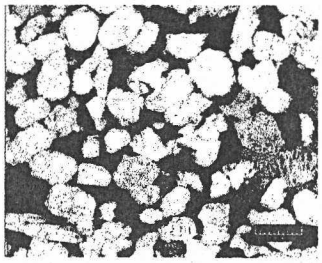

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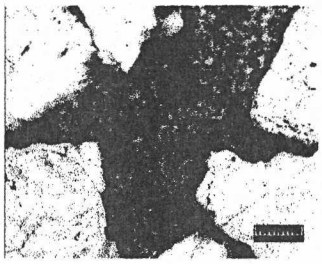

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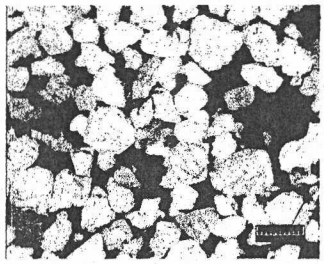

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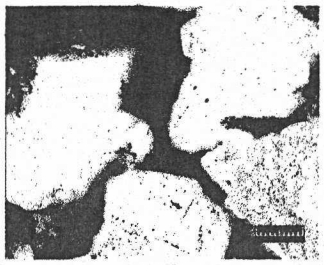

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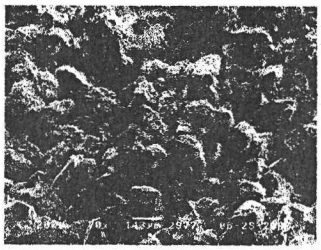

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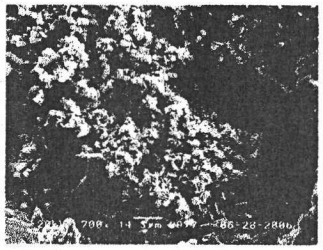

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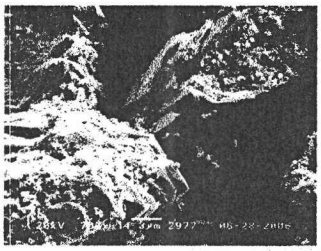

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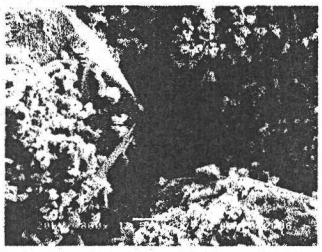

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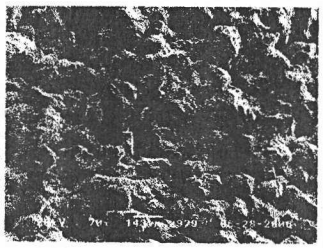

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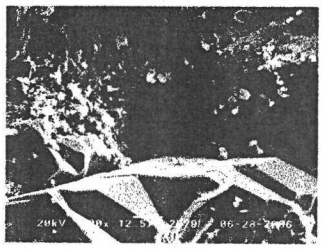

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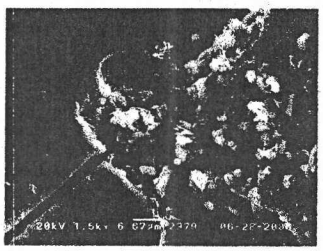

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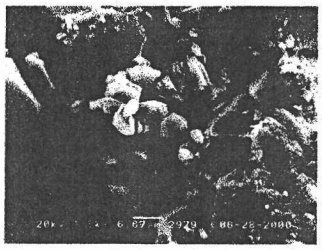

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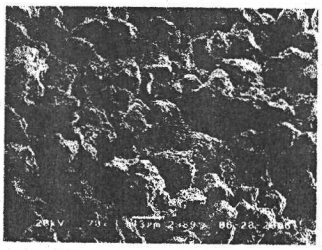

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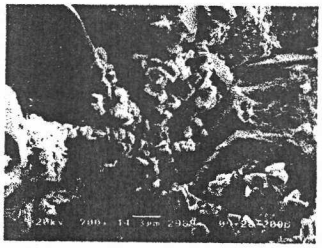

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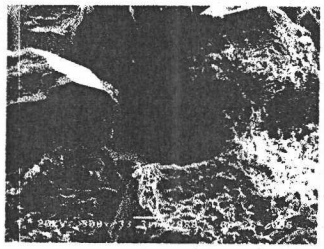

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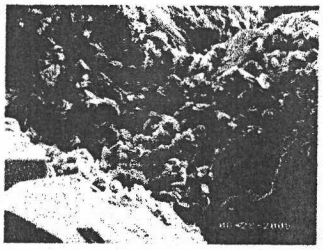

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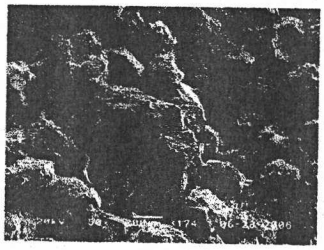

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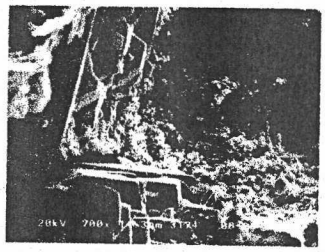

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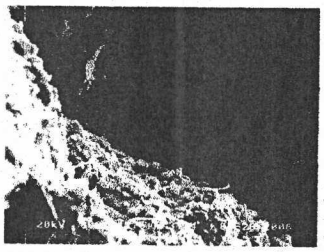

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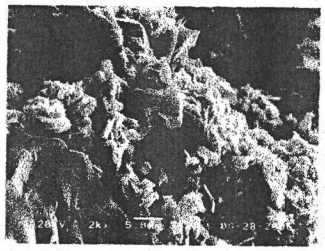

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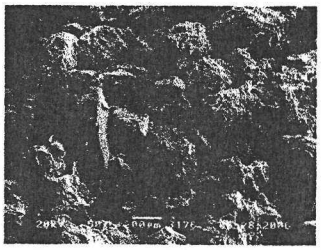

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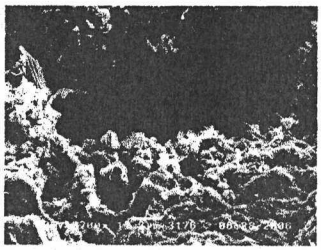

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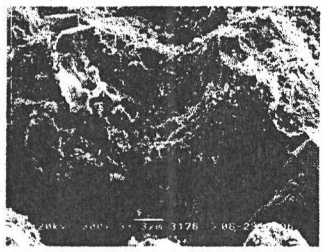

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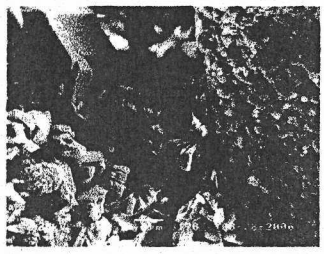

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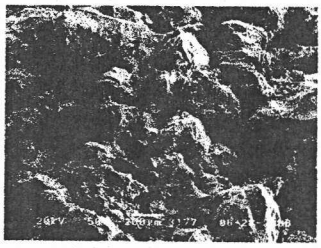

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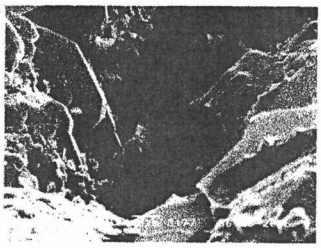

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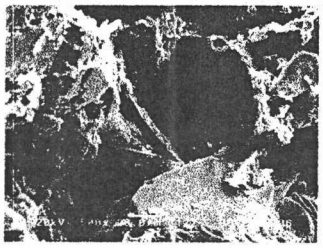

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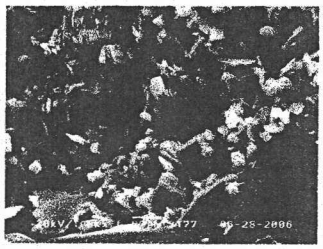

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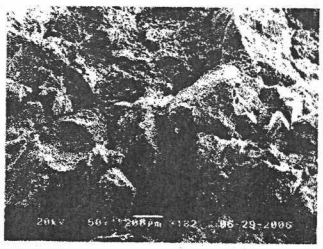

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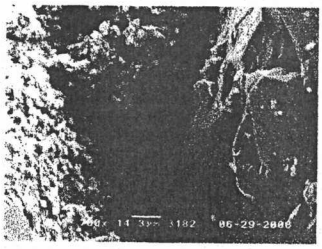

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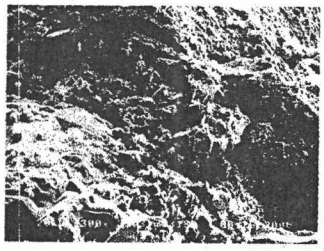

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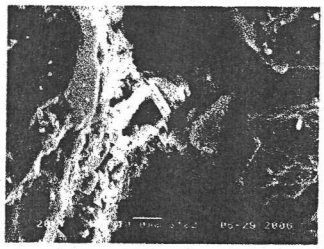

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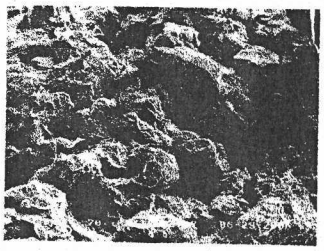

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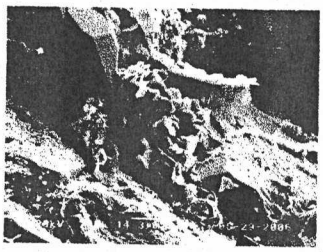

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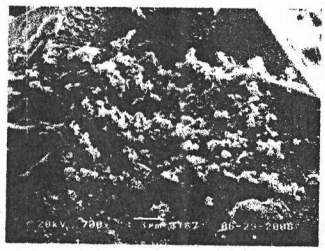

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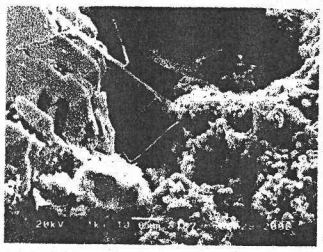

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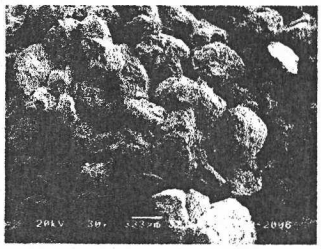

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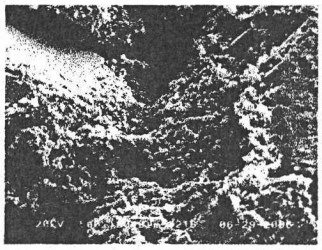

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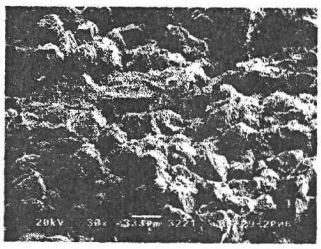

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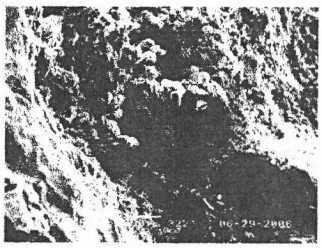

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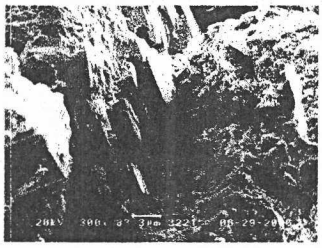

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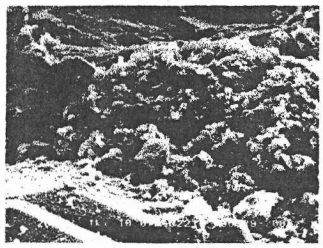

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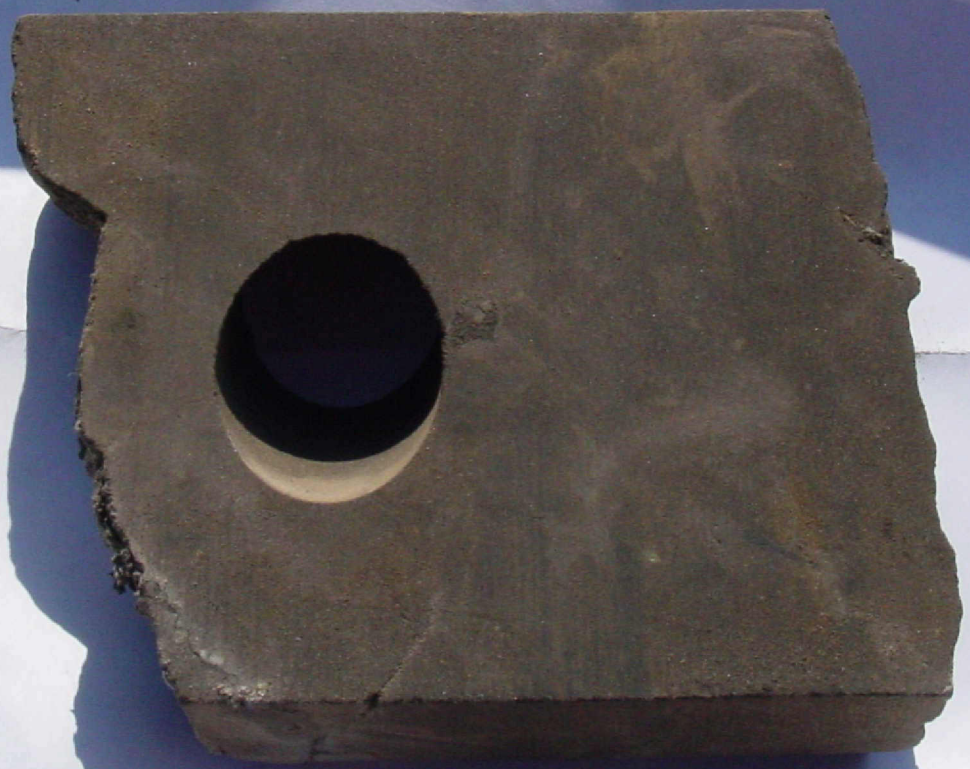
12976.6 - 12979

Top 1/3

Box # 4924 Core #2

12979 - 12981.7"

Top 1/2



Box # 4924 Core #2

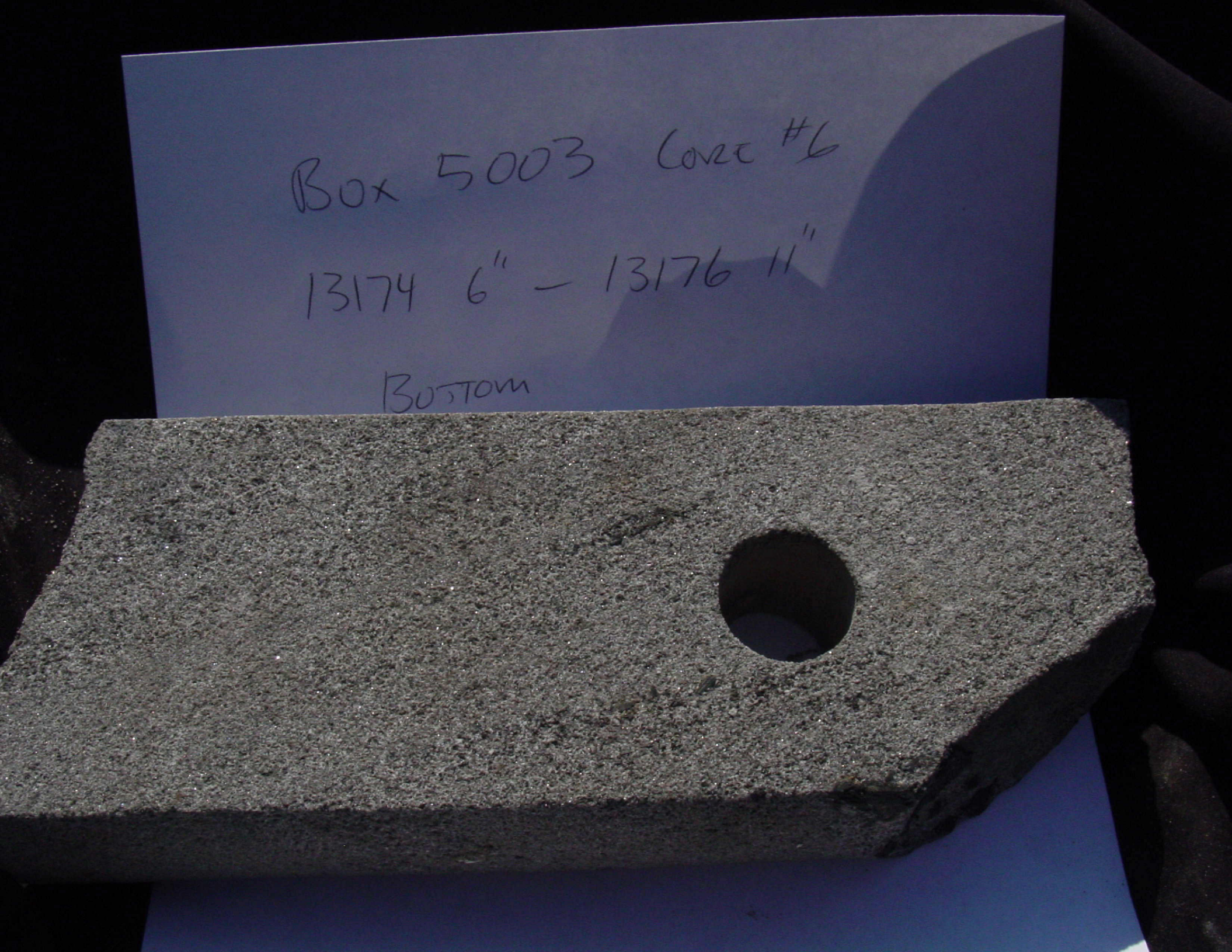
12979 - 12981.7"

Top 1/2

Box 4927 Cor #2
12987 3" - 12989 8"
Bottom 1/2

OCS4
Box 5002
CORE #6
13171 6" – 13174 6"
TOM CORE

OCS4197
Box 5002
CORE #6
13171 6" – 13174 6"
BOTTOM CORE


Box 5003 Core #6
13174 6" - 13176 11"
Bottom

BOX 5004 CORE #6
13176 11" - 13180
TOP MIDDLE

Box 5006 Core #6

13182 9" - 13185

Top Section

Box 5008 Core #
13186 – 13188 2"
MIDDLE

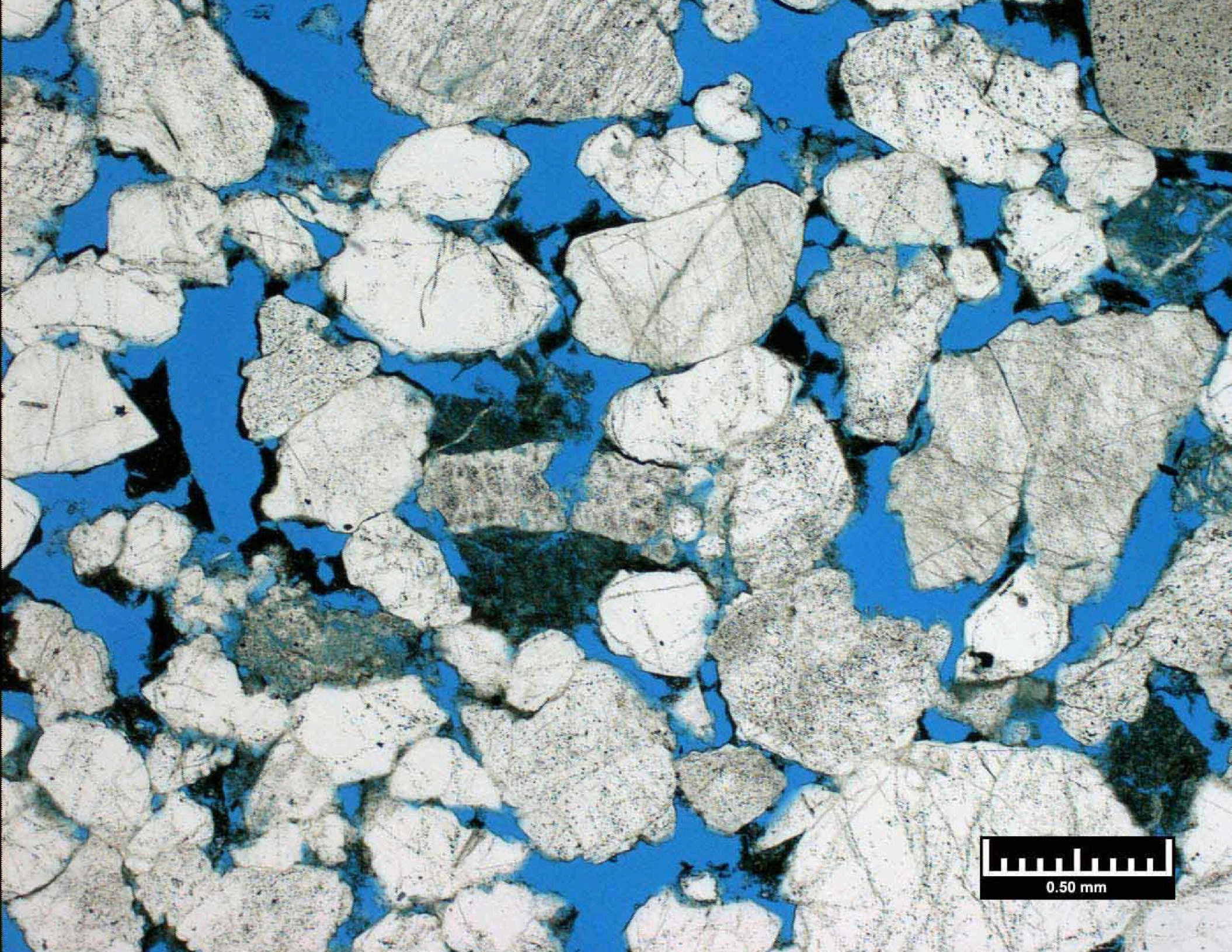
Box

13216 - 13219

Bottom

Box 5022 Core #
13219 - 13221 6"
Upper Section

Box 5022 Core #
13219 - 13221 6"
Upper Section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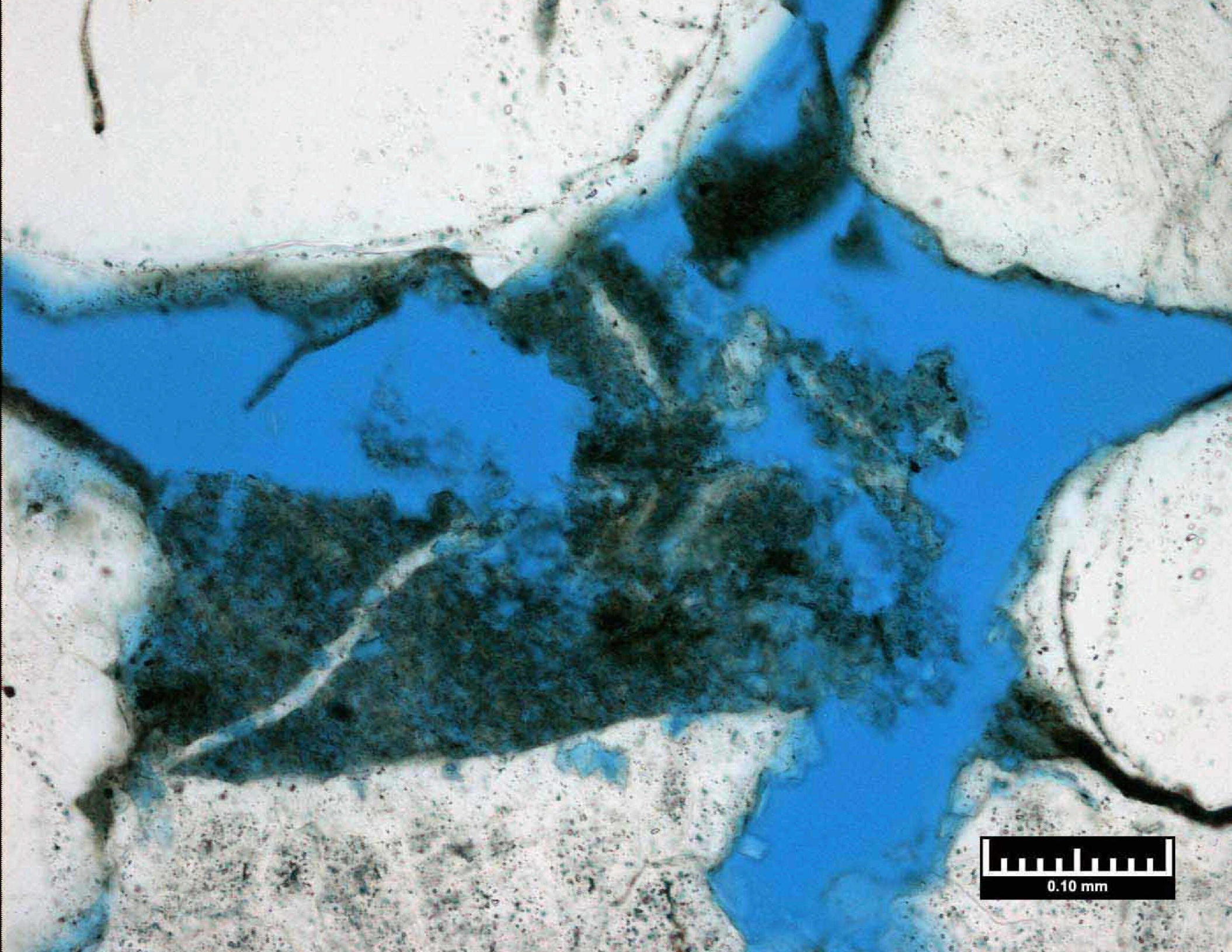
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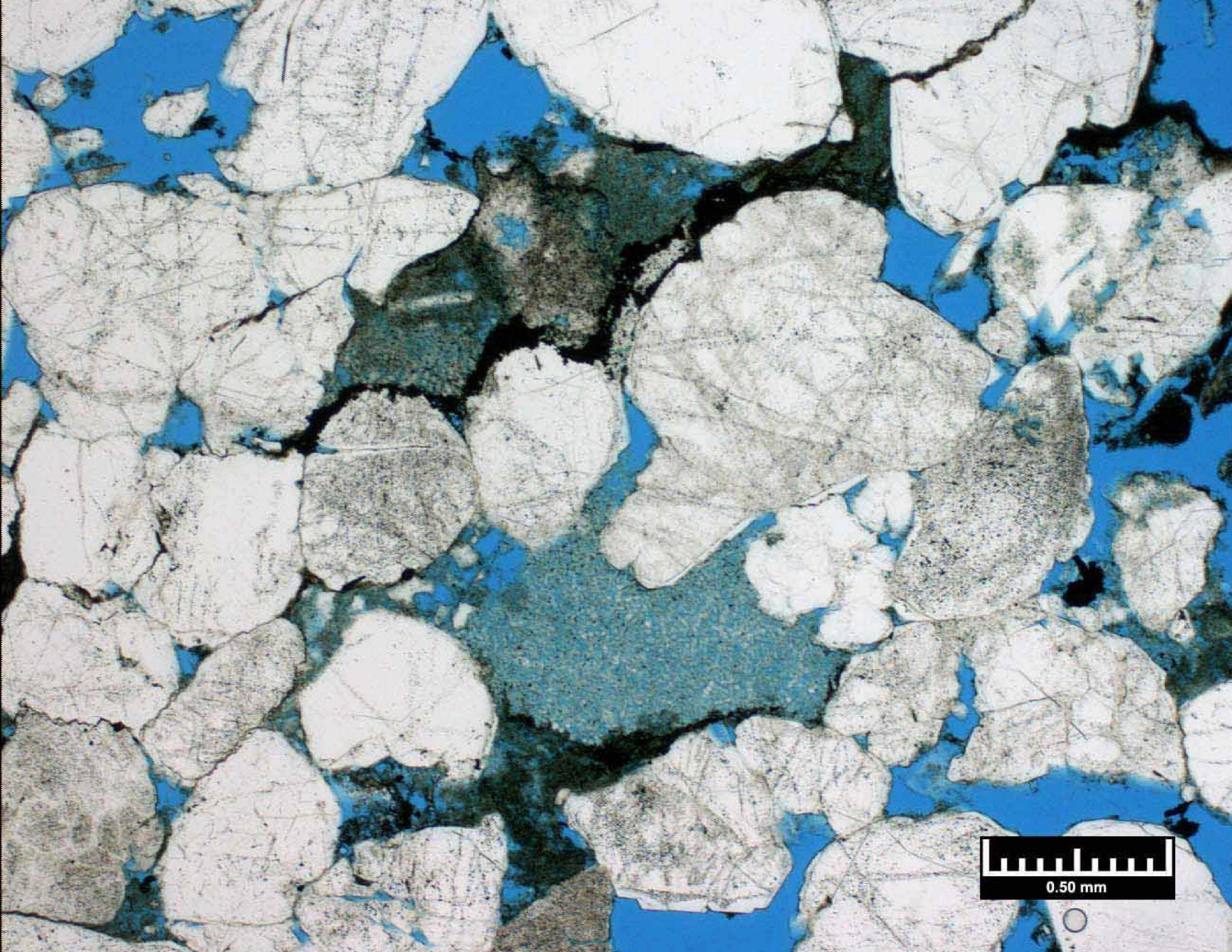
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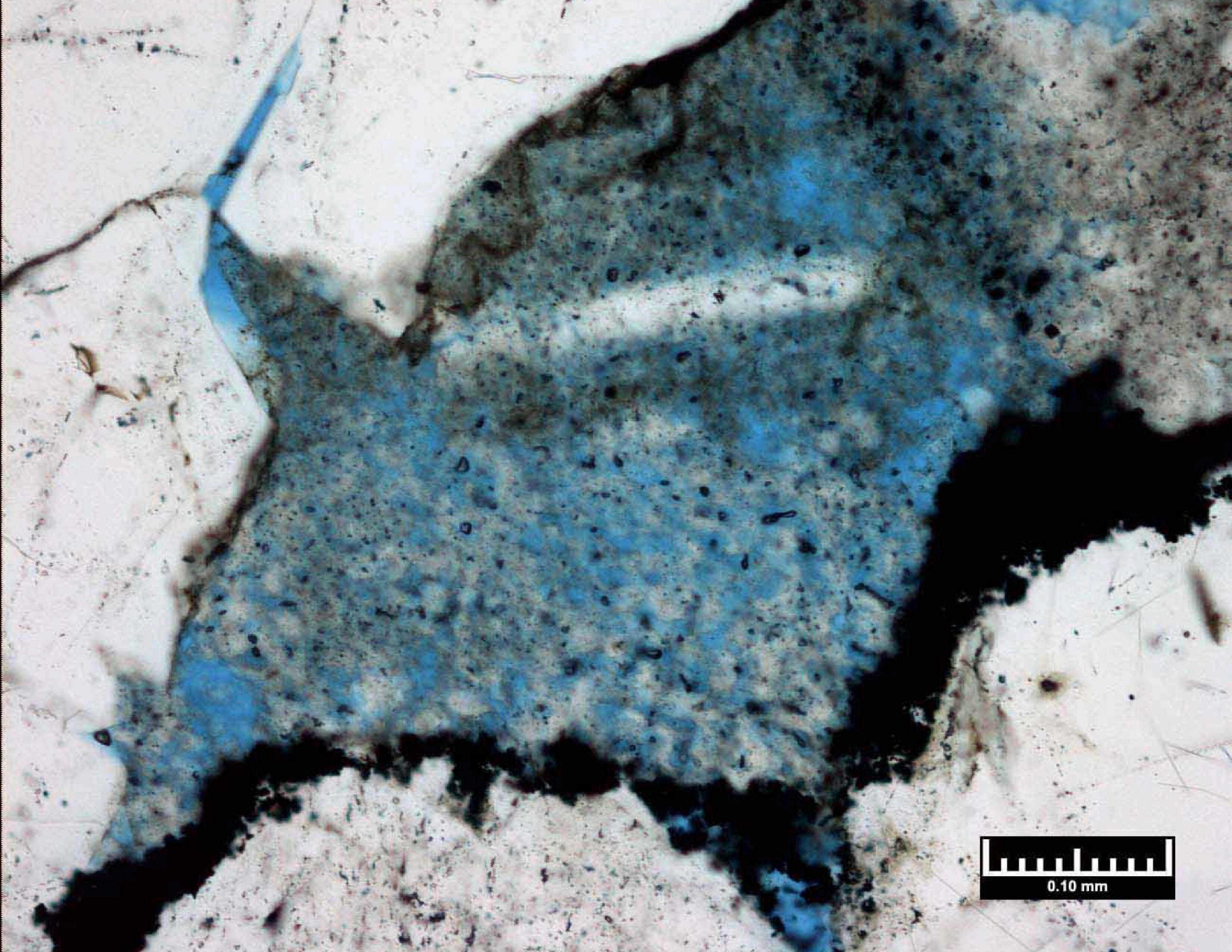
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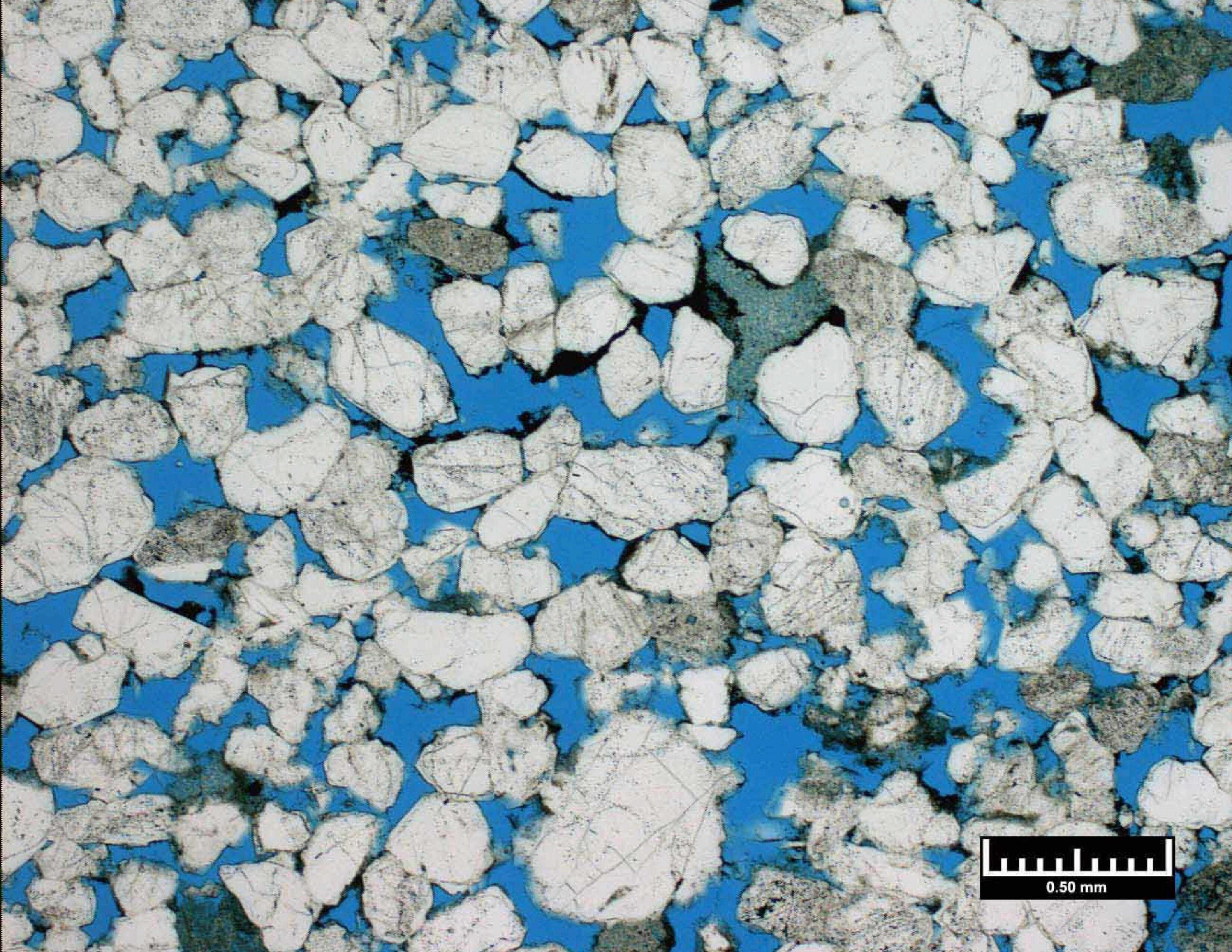
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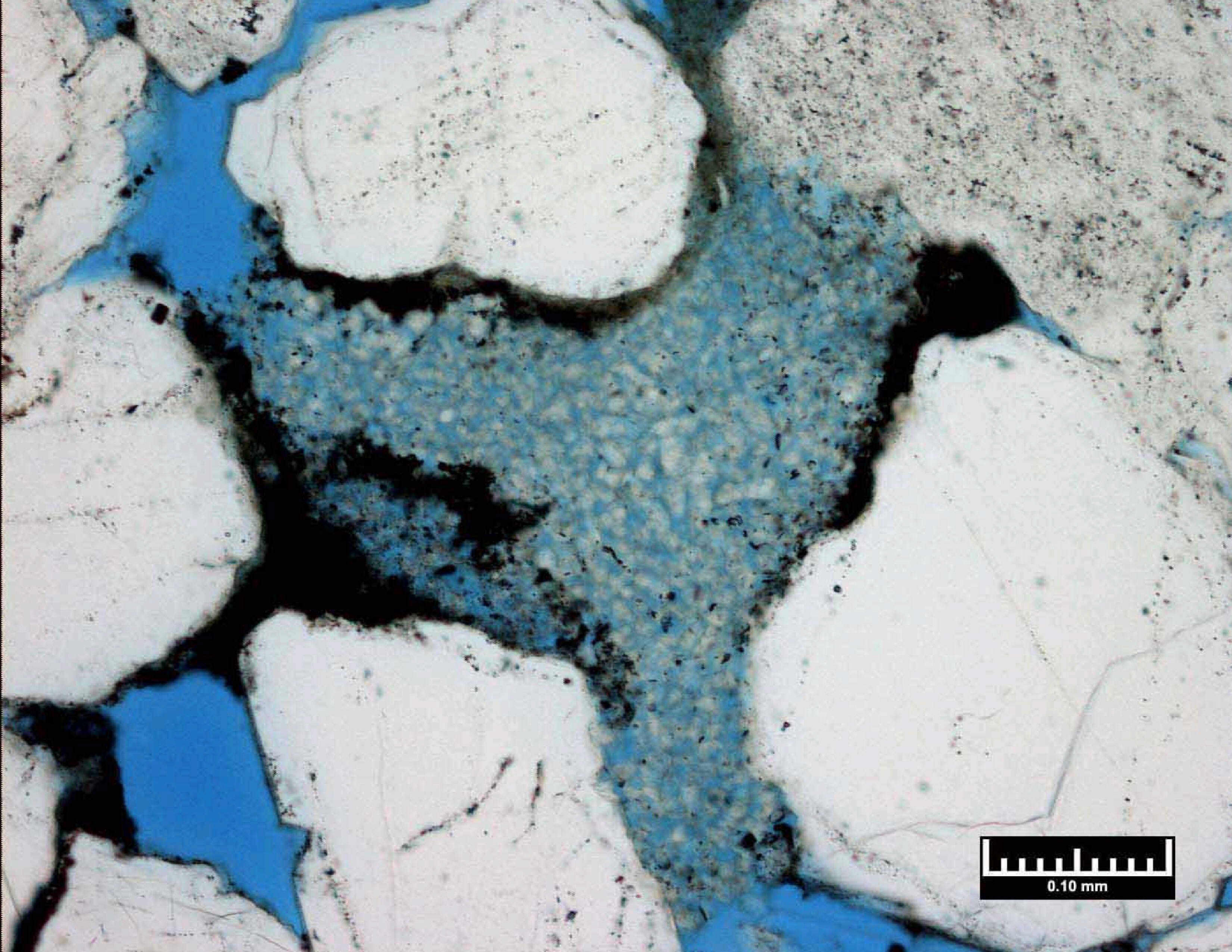
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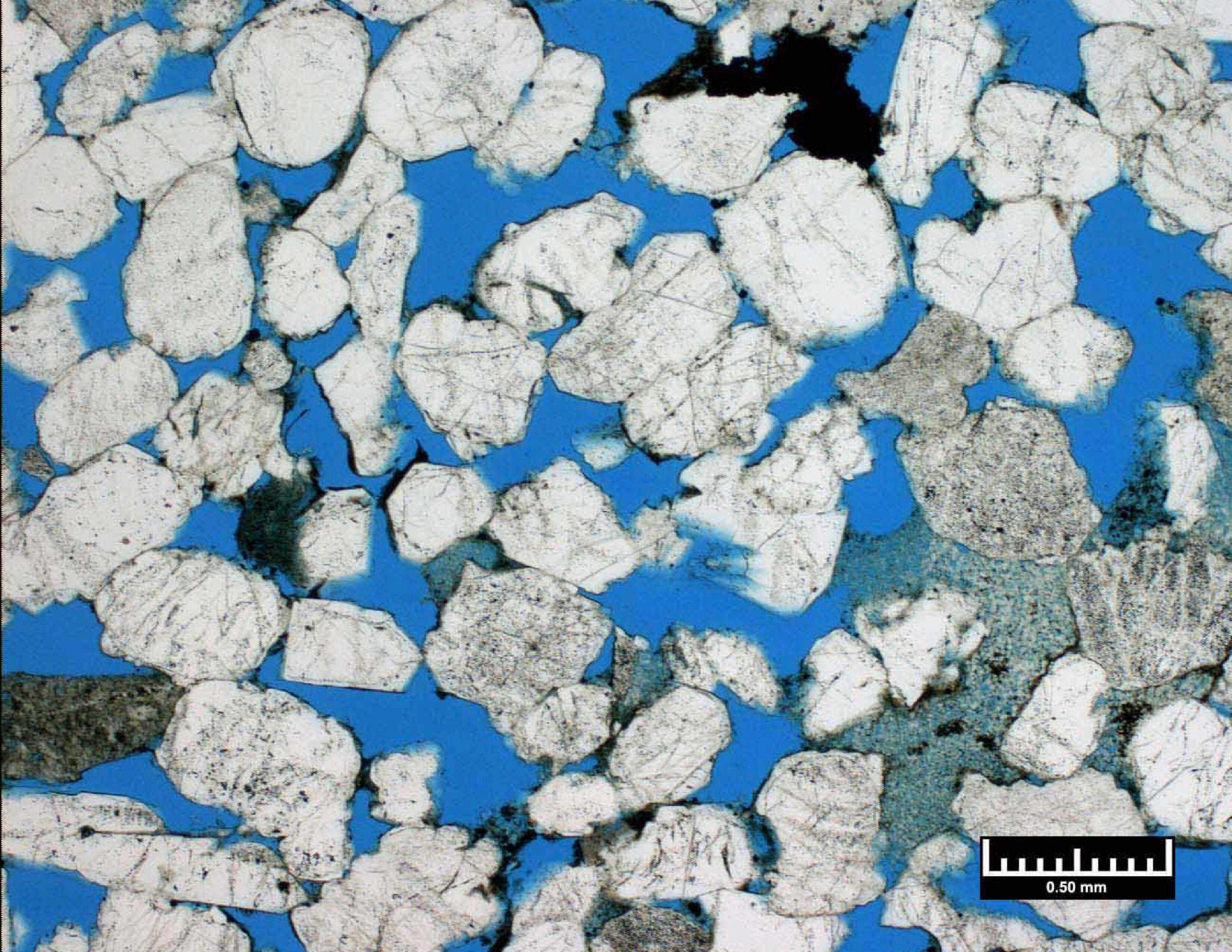
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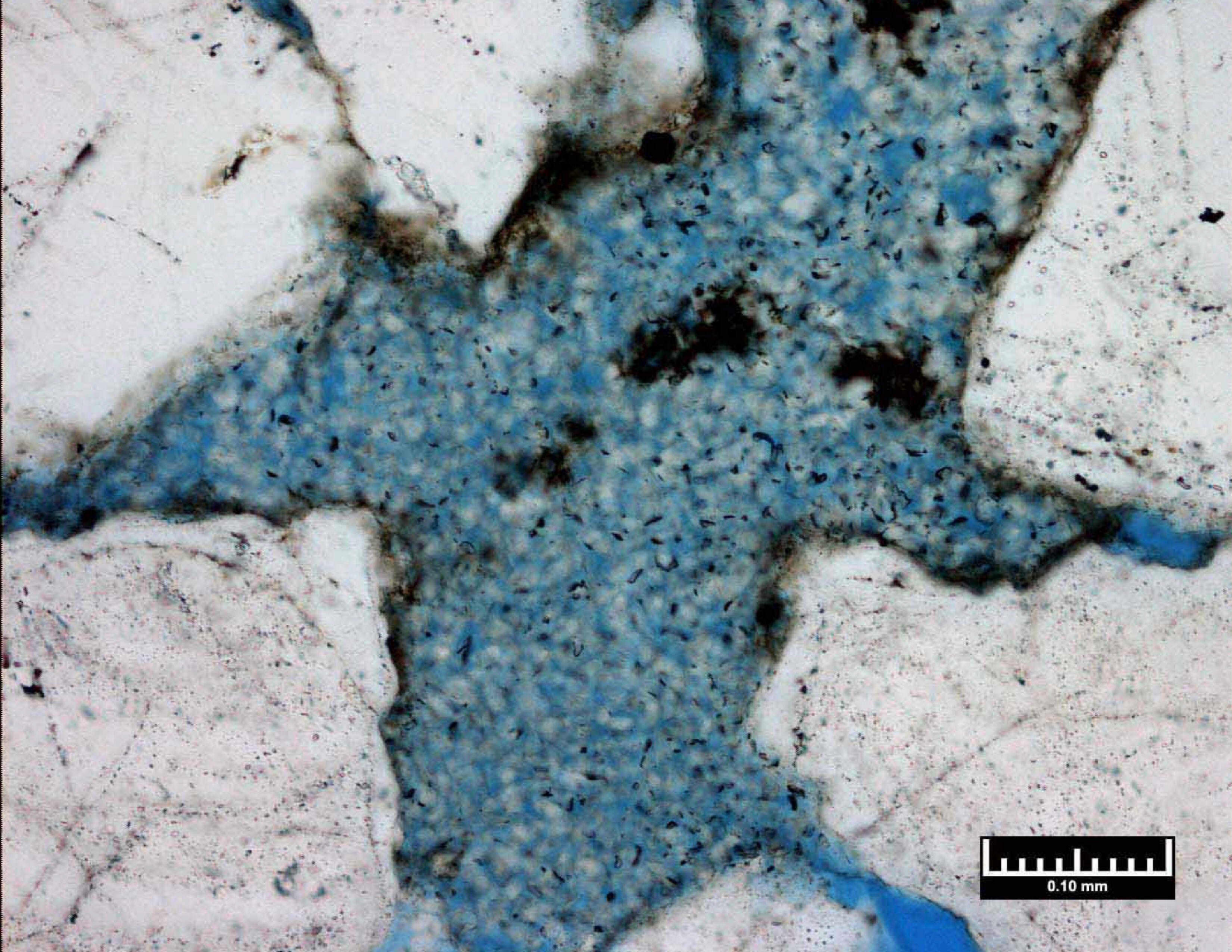
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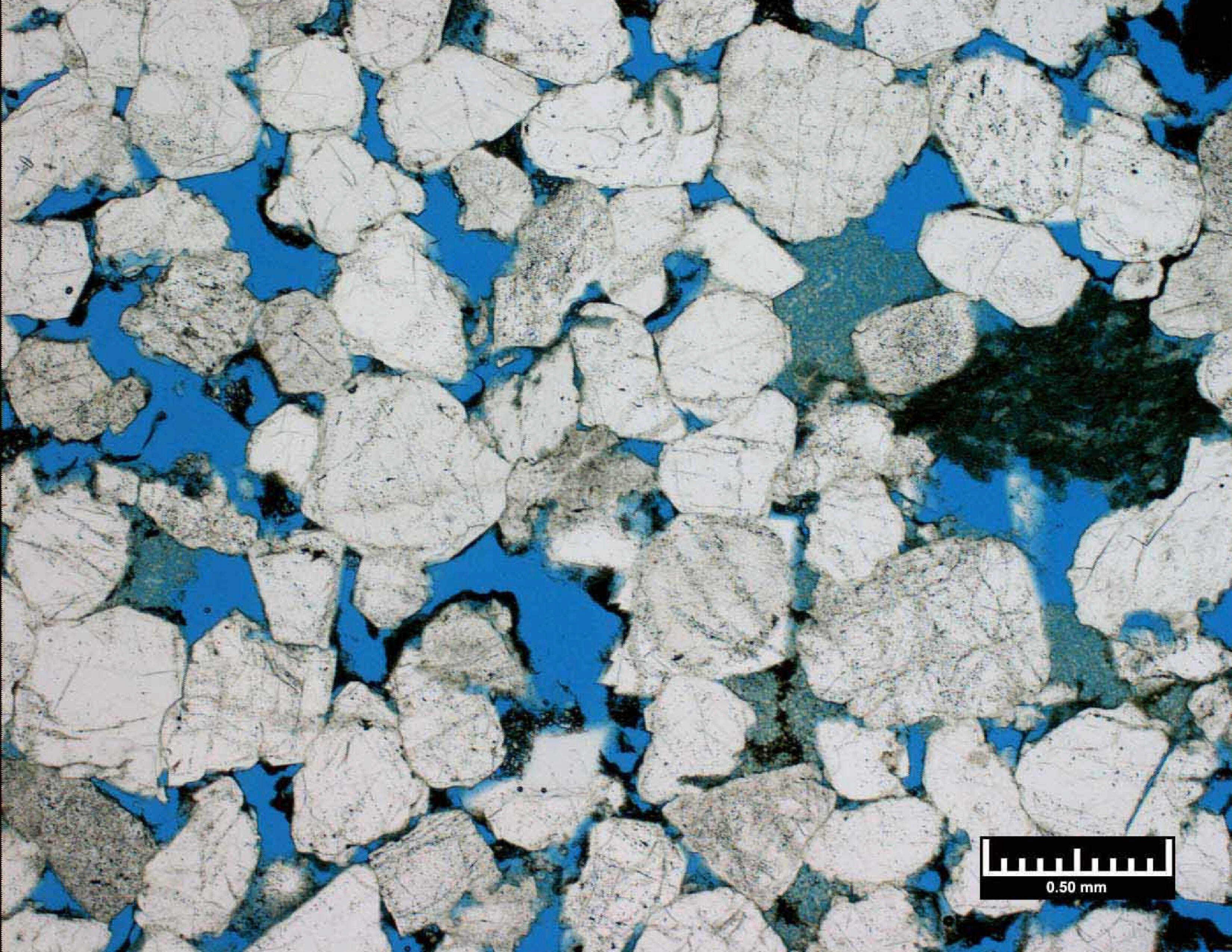
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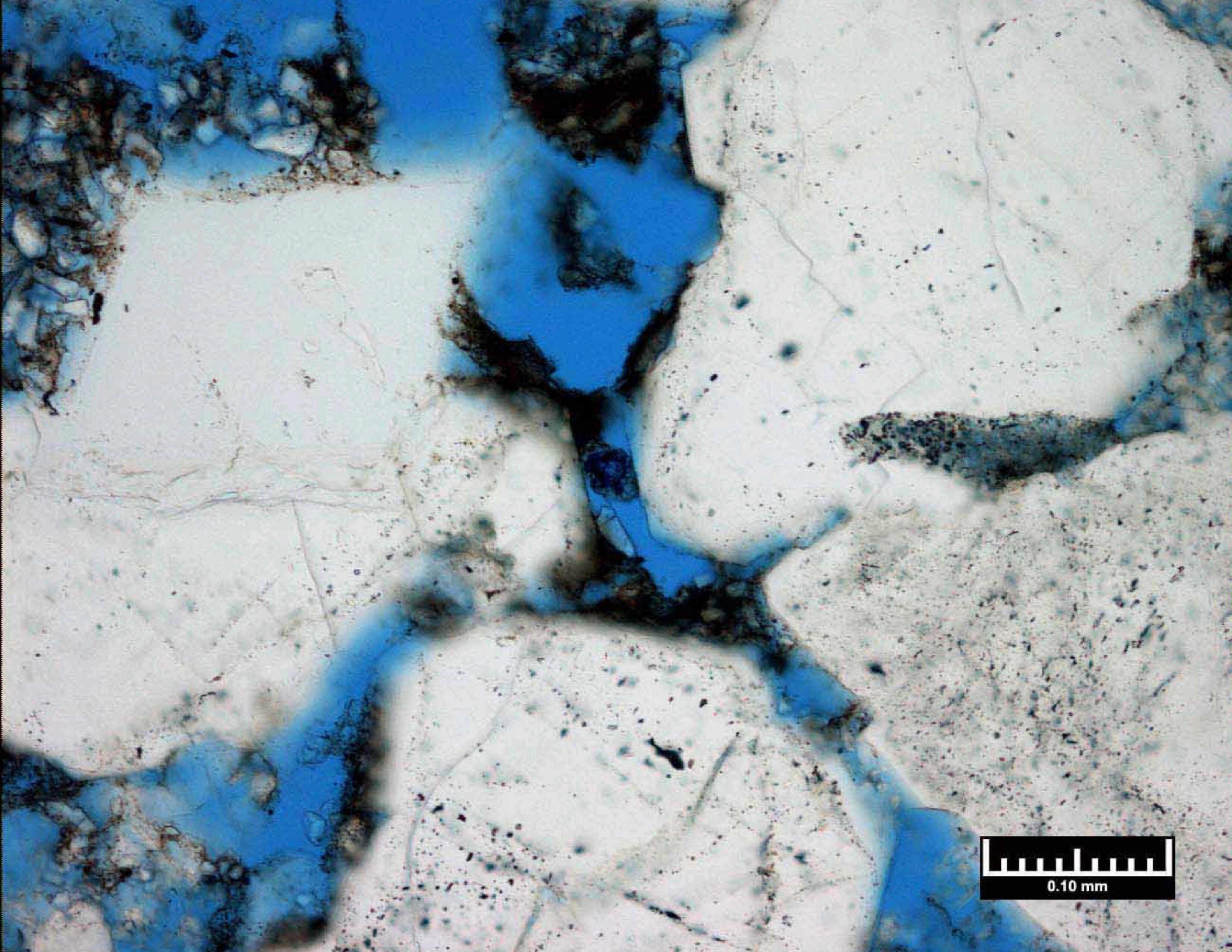
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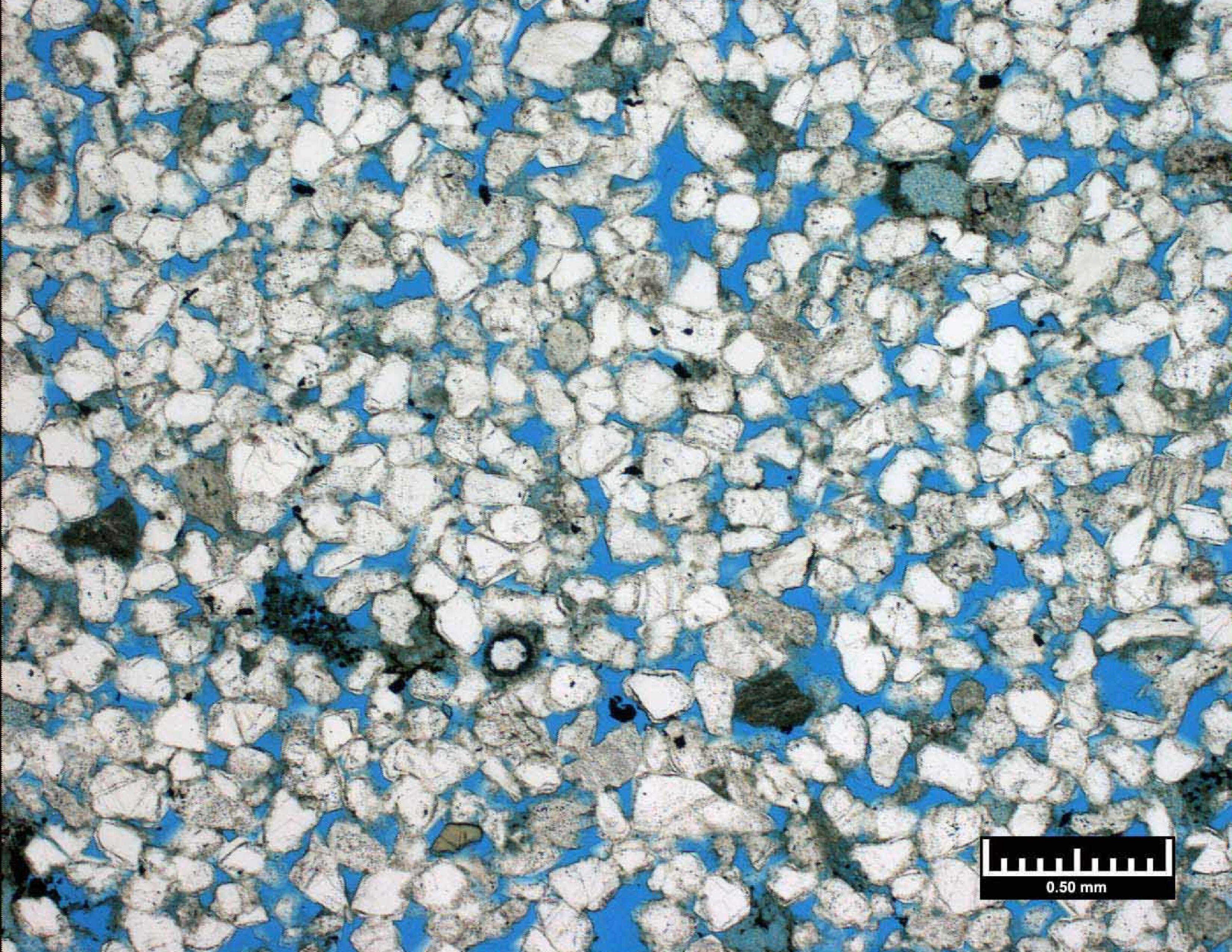
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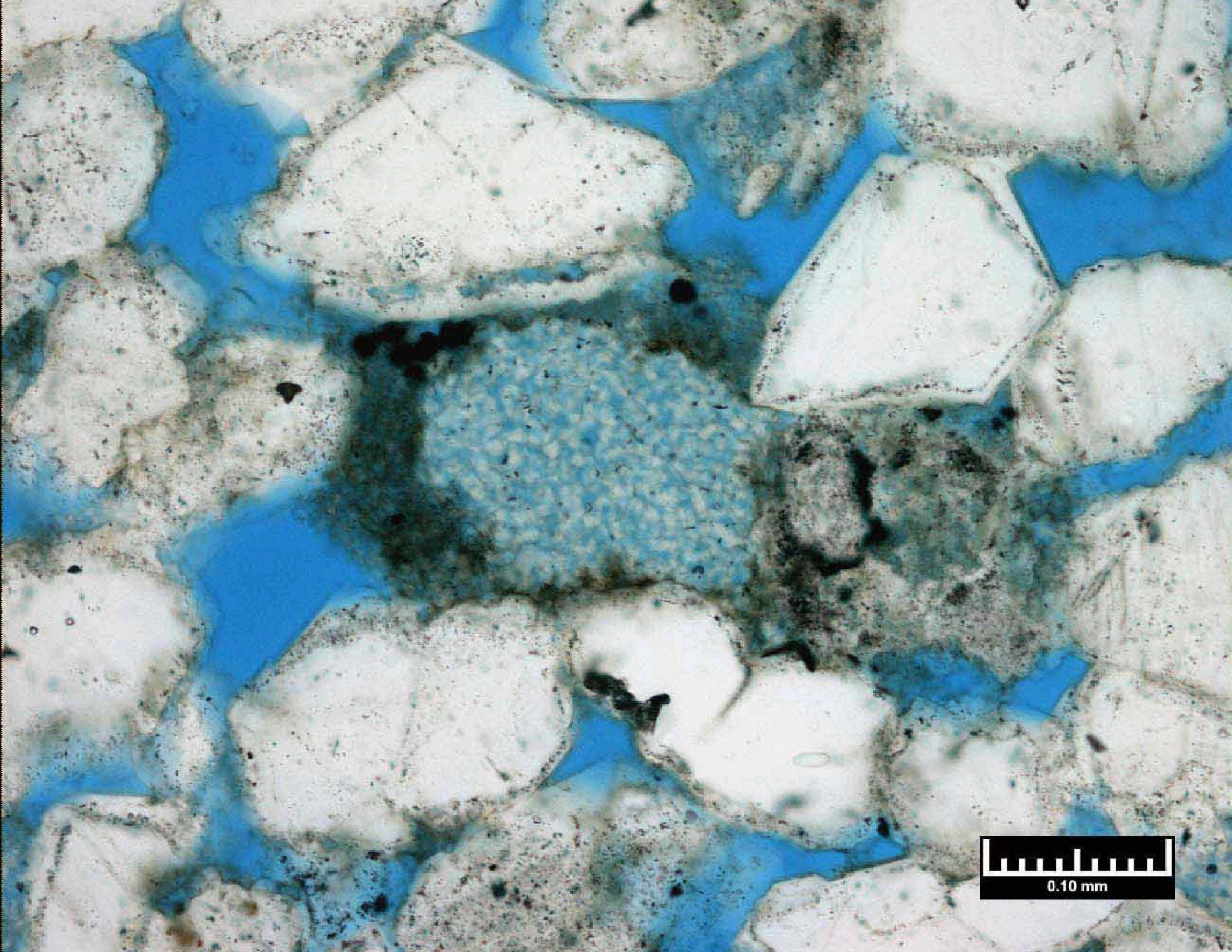
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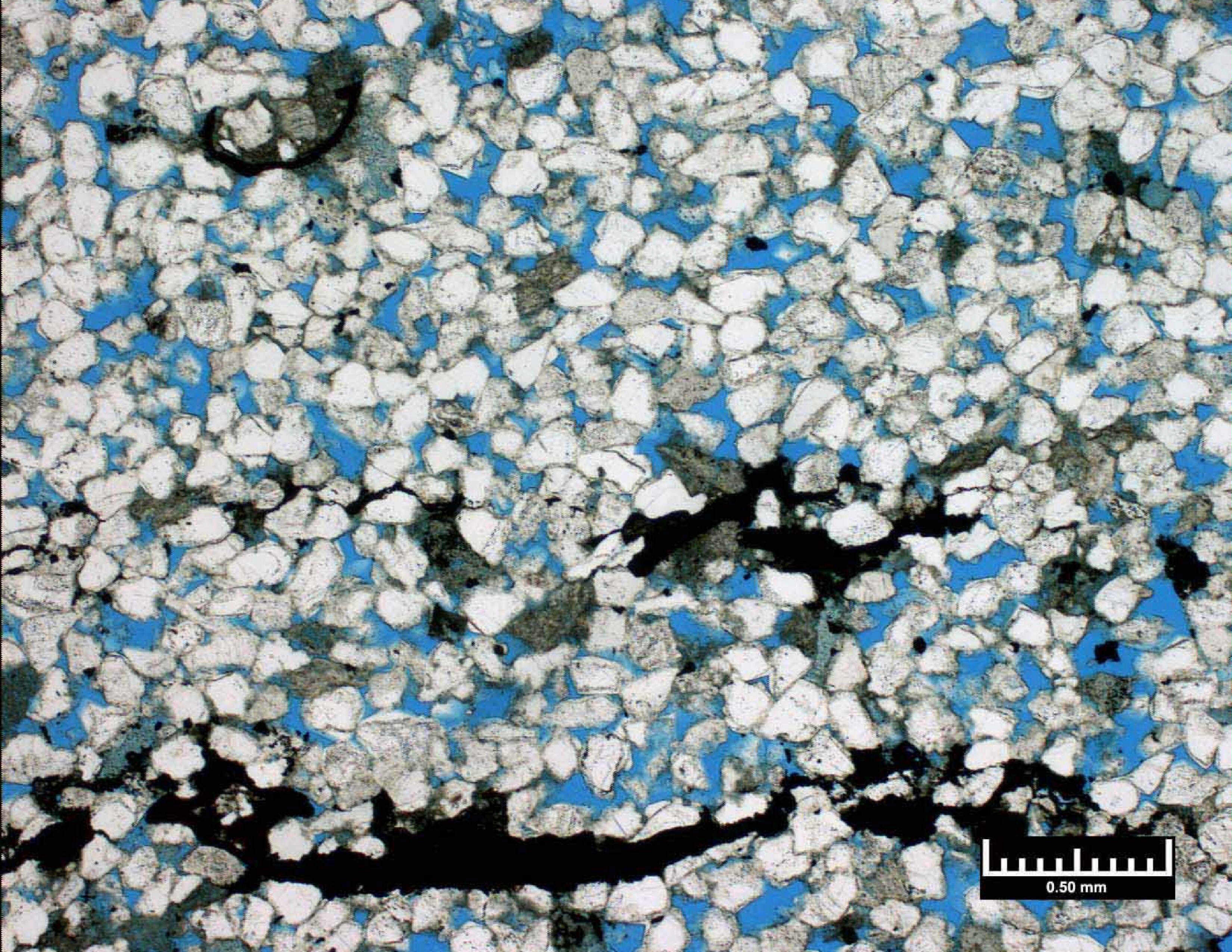
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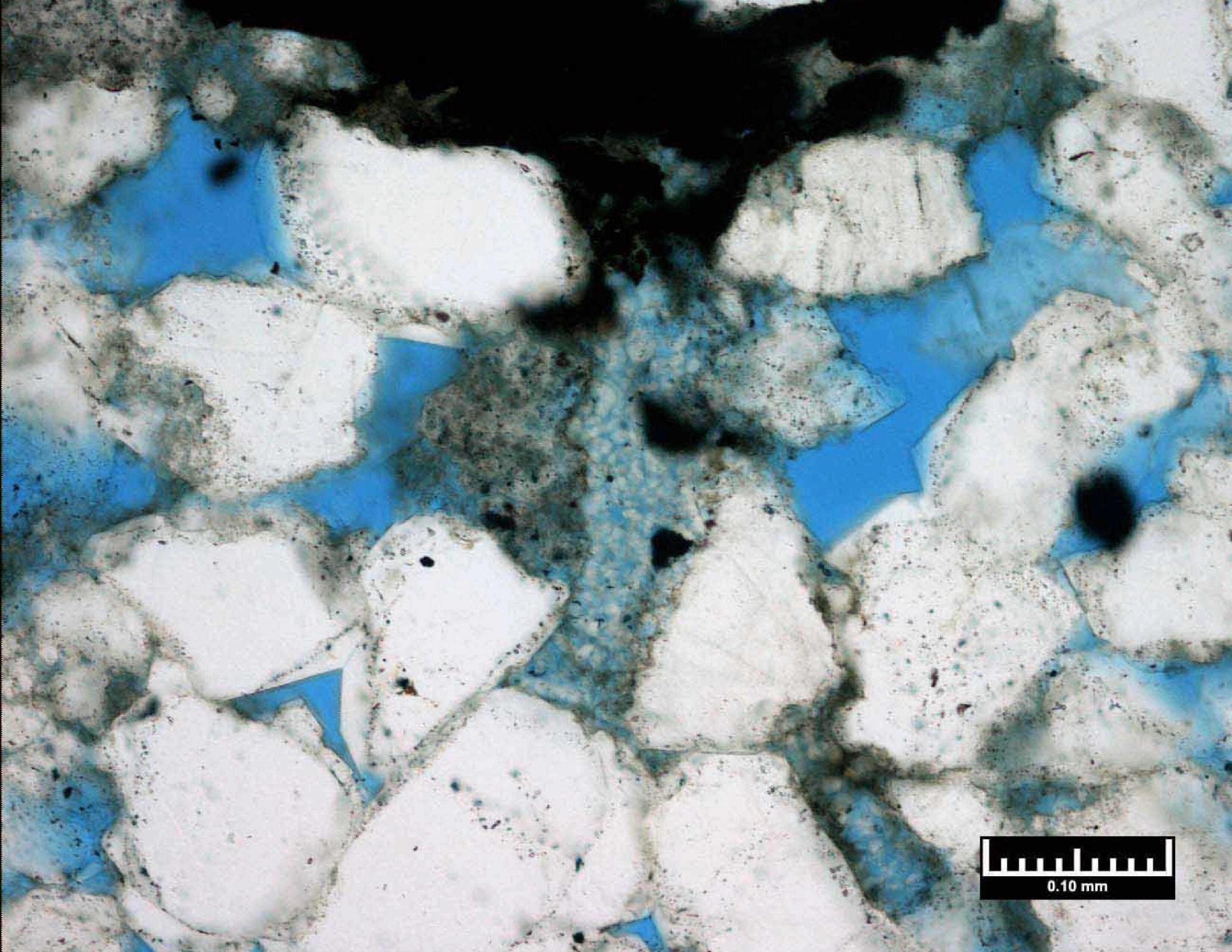
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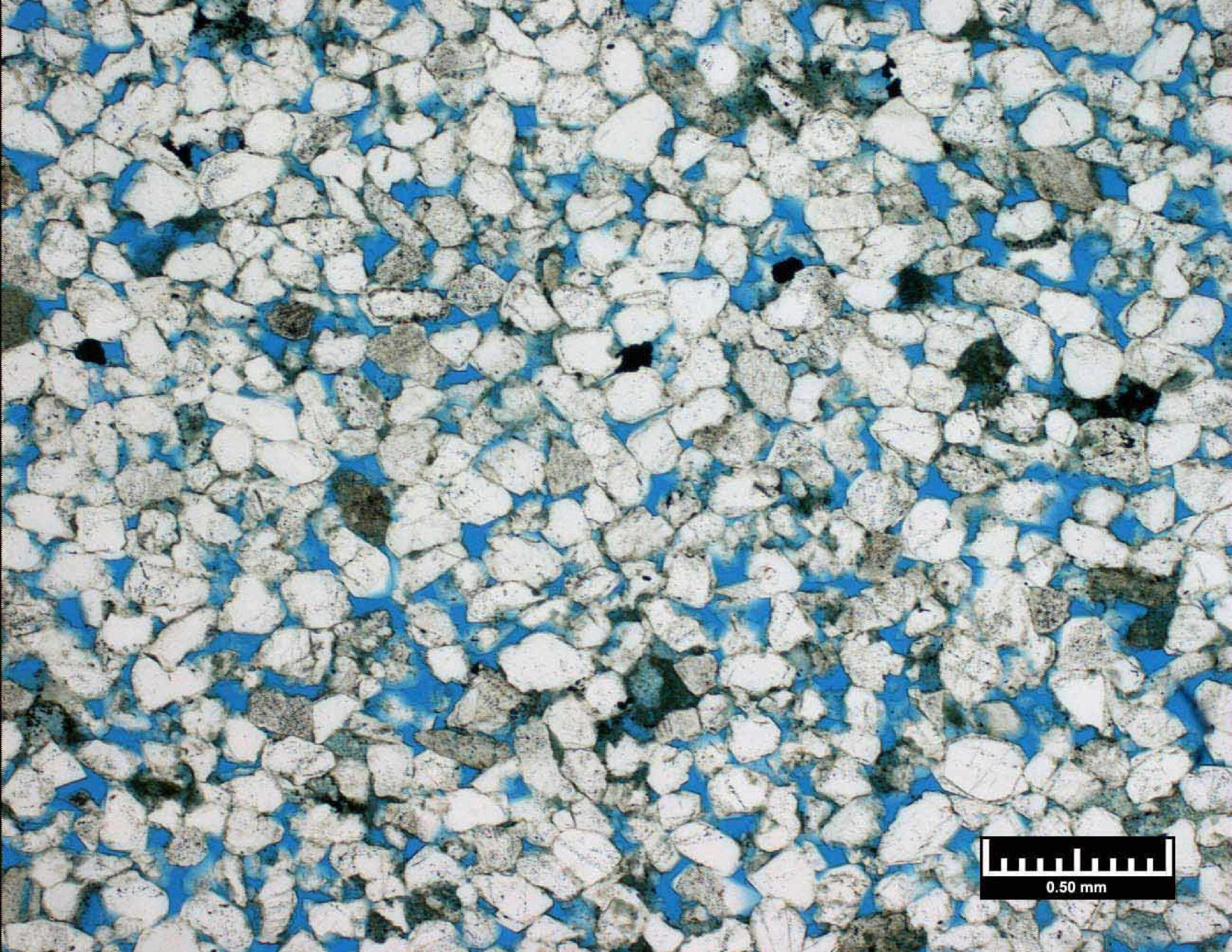
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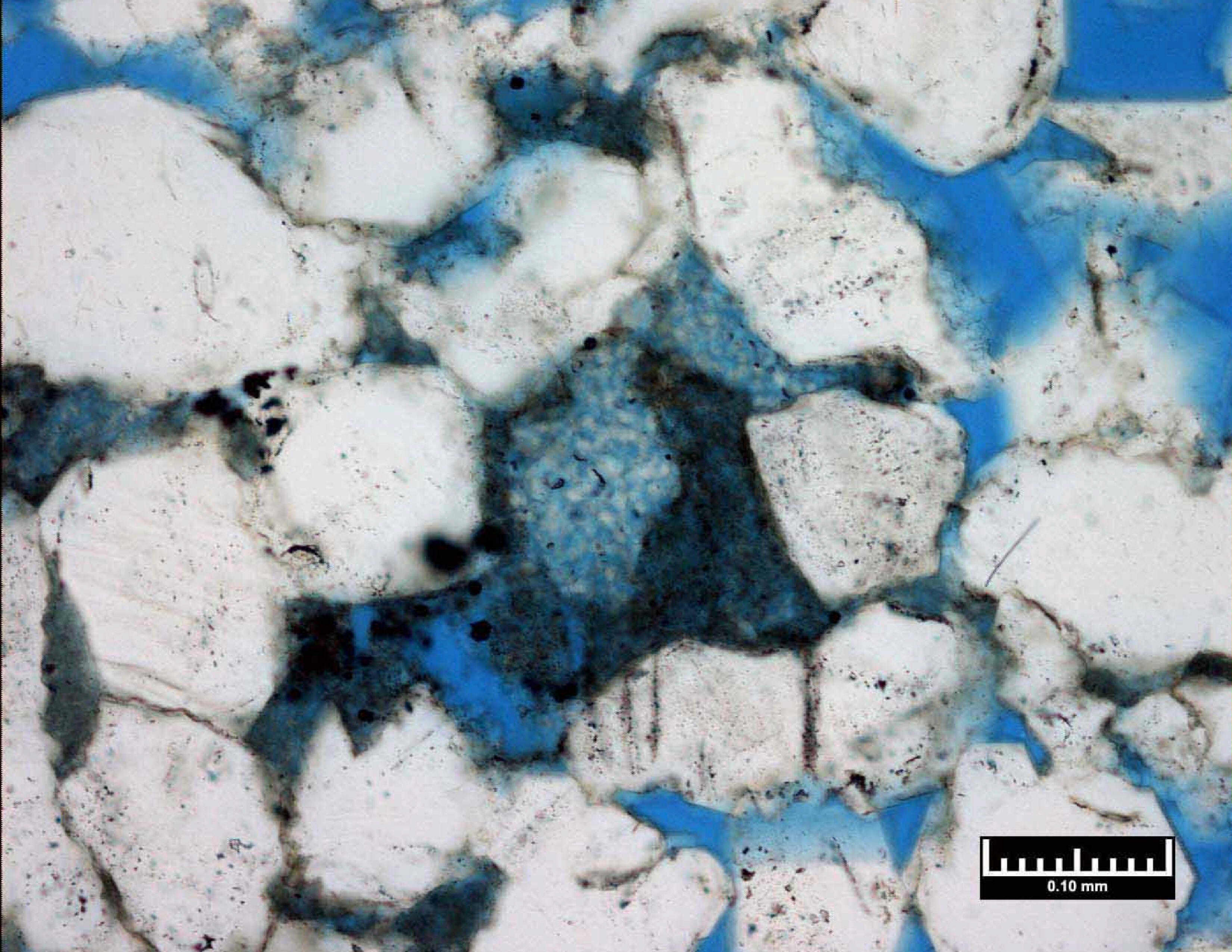
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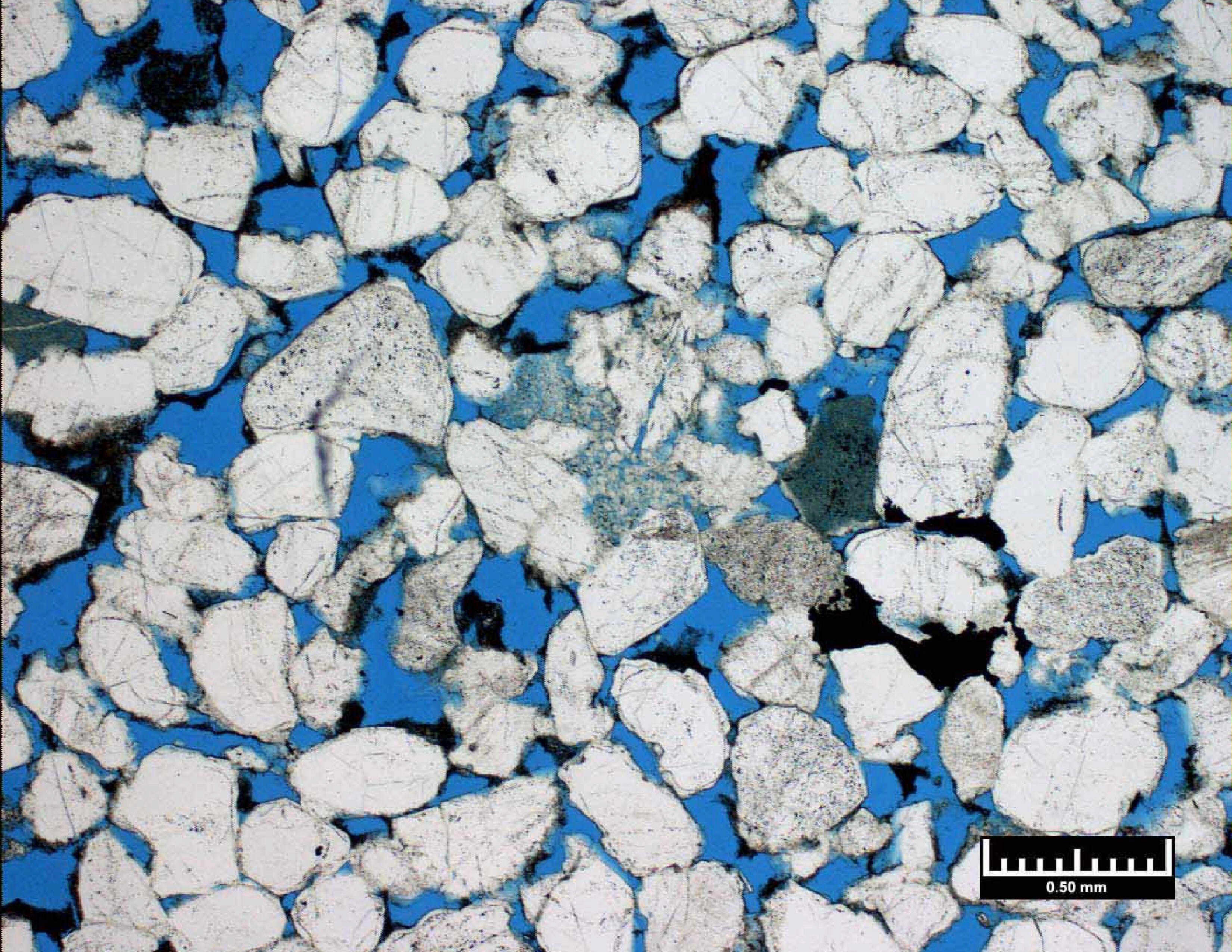
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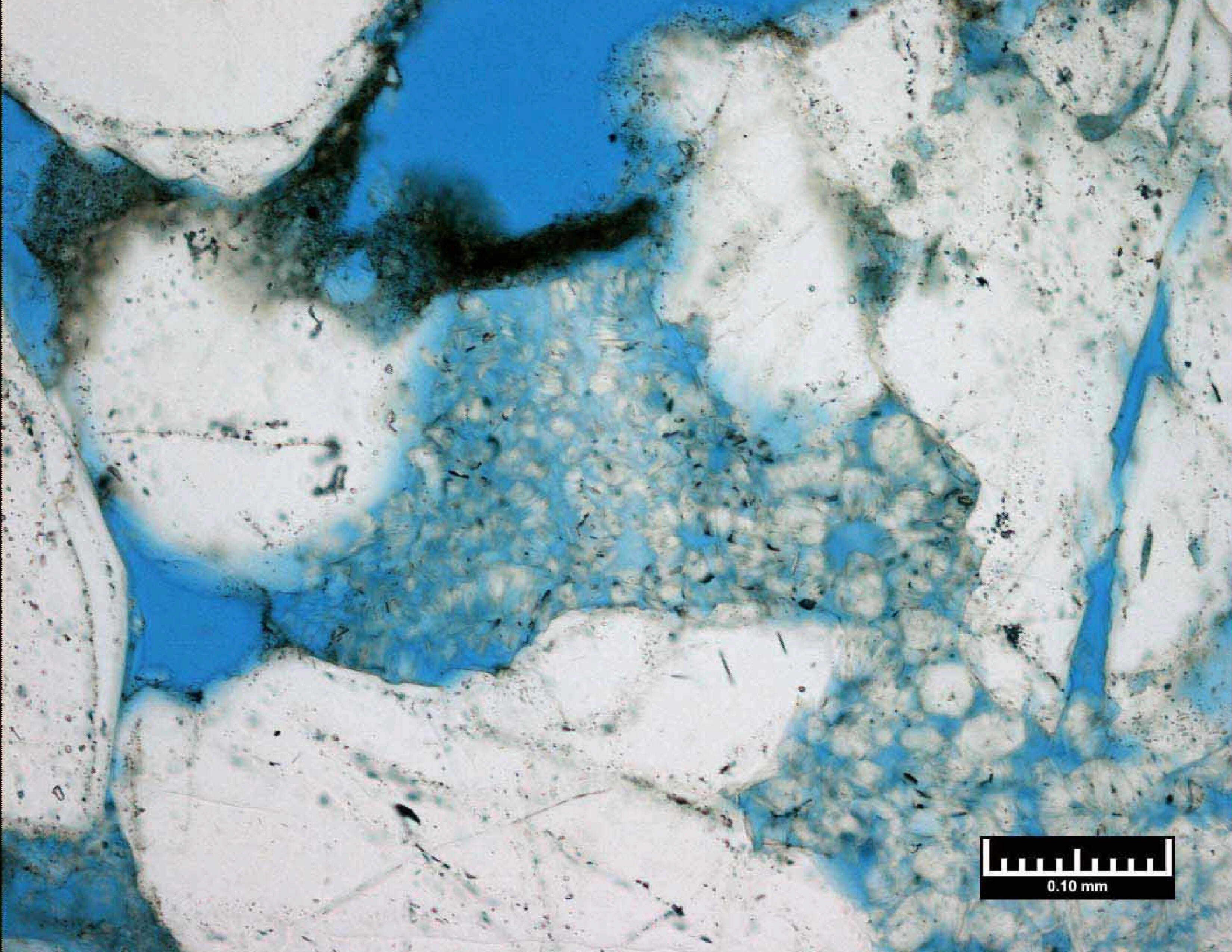
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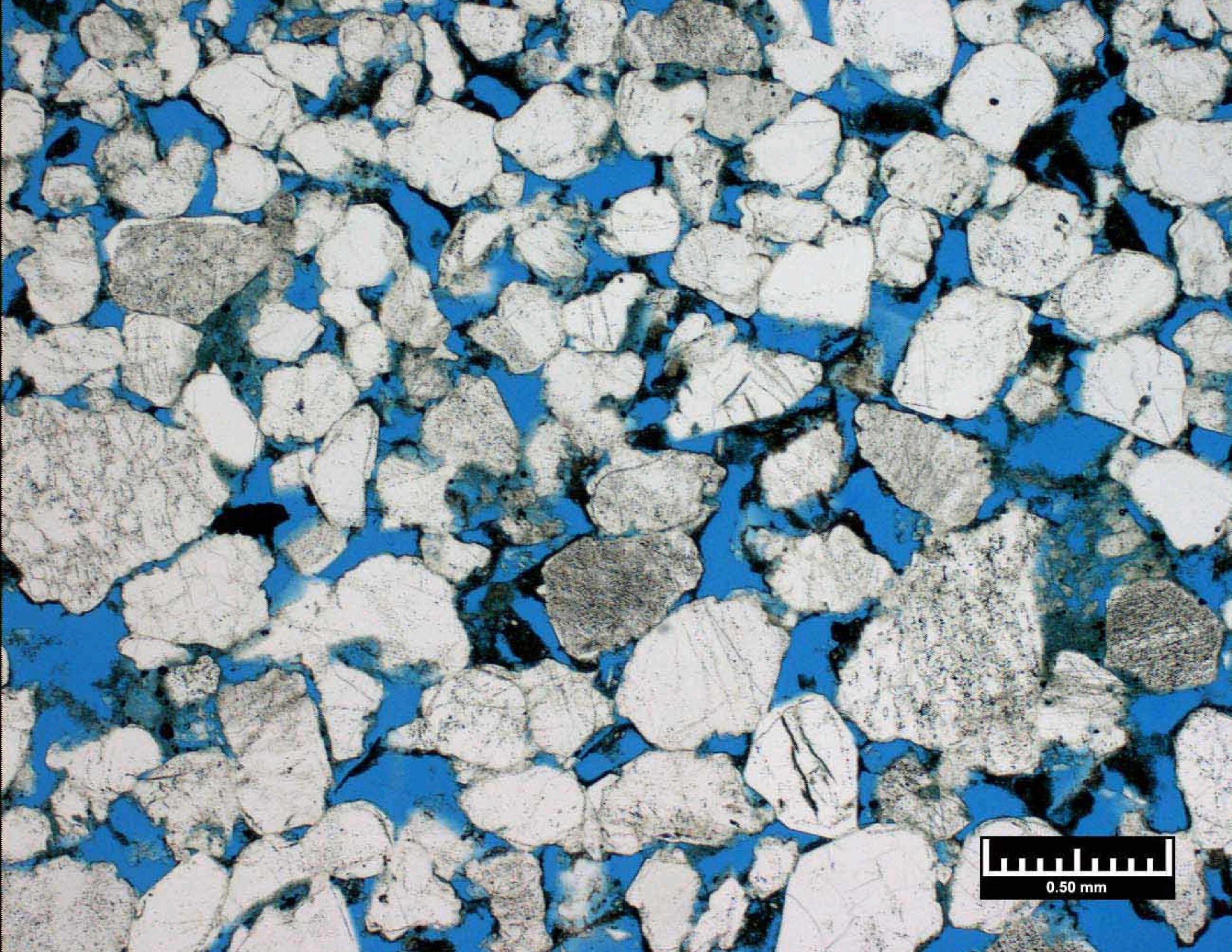
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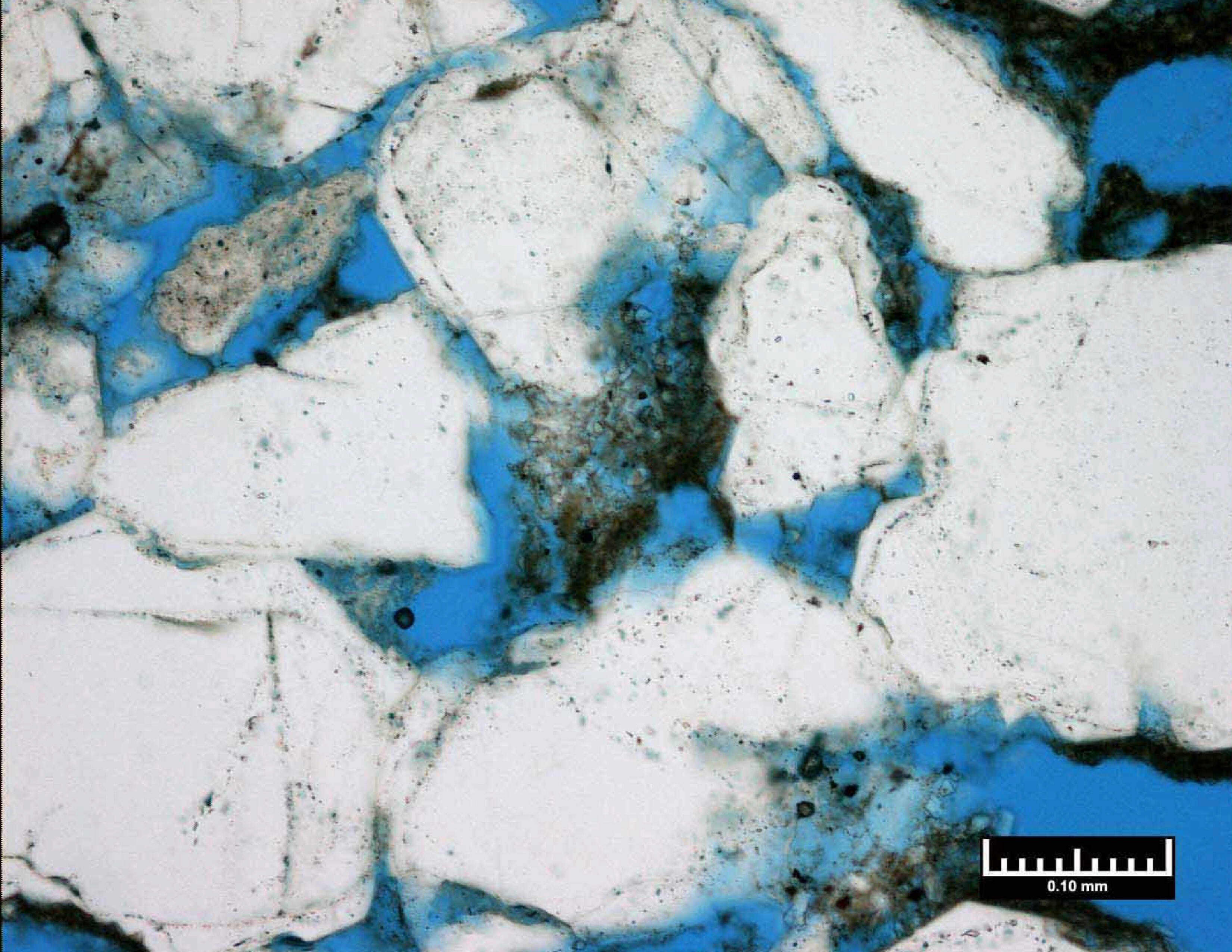
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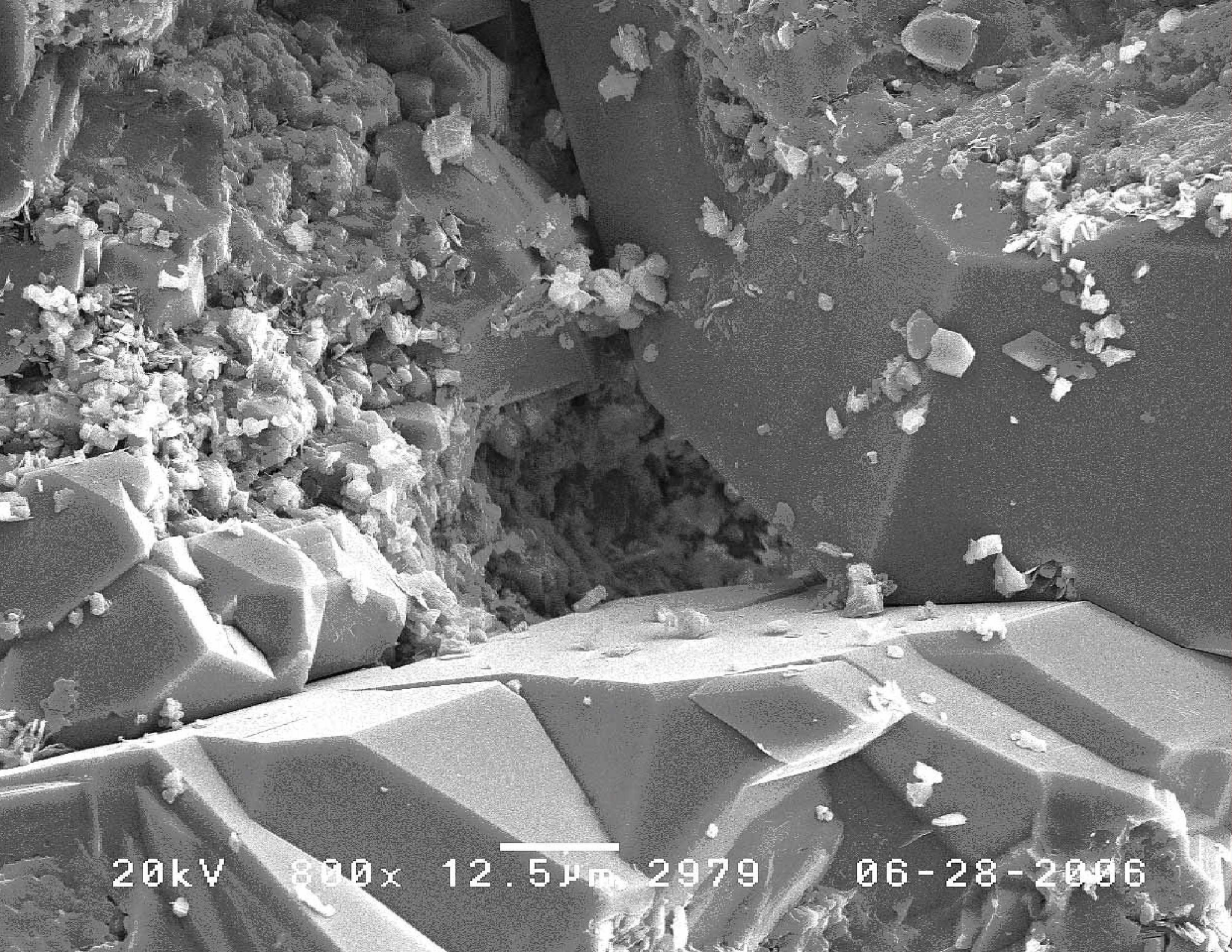
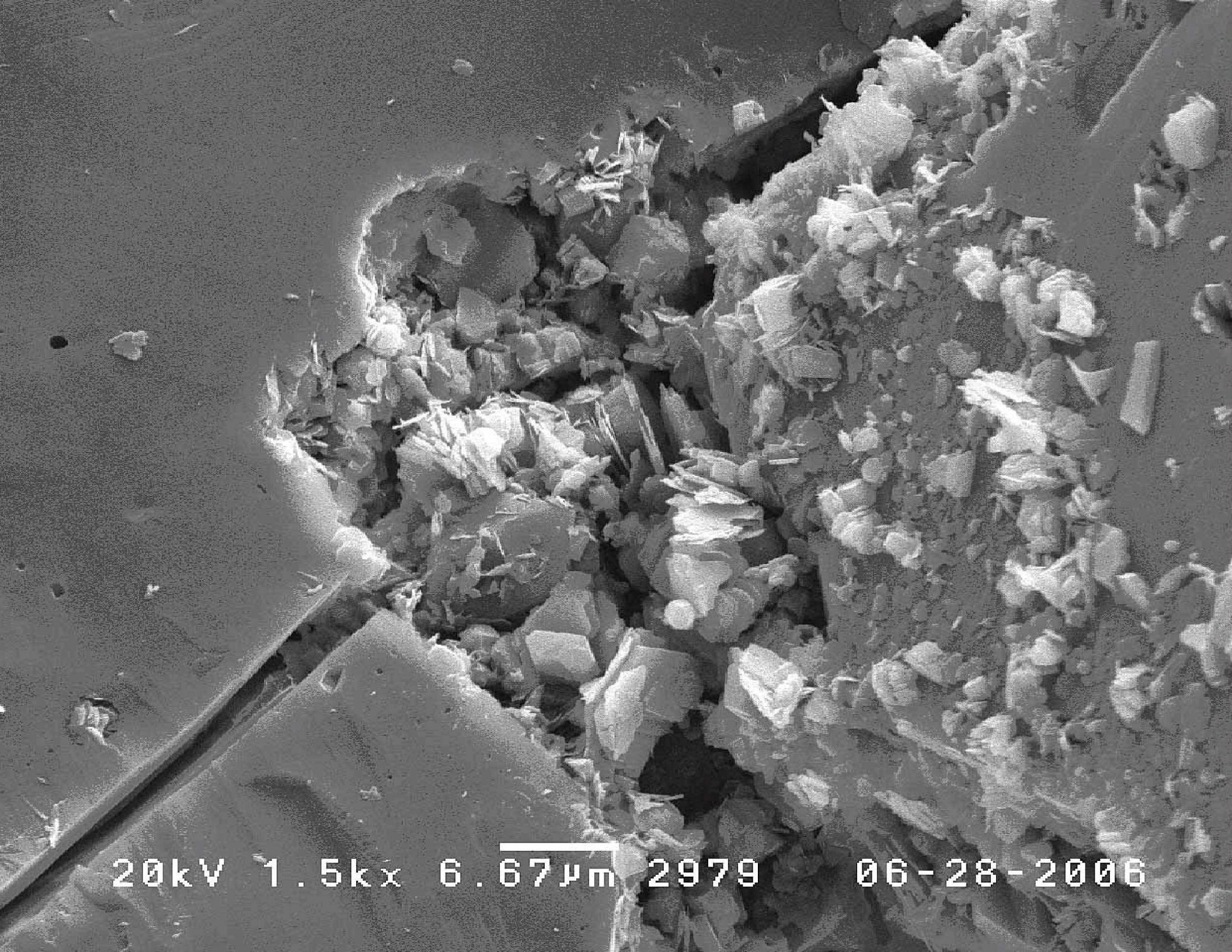

20kV 800x 12.5μm 2979 06-28-2006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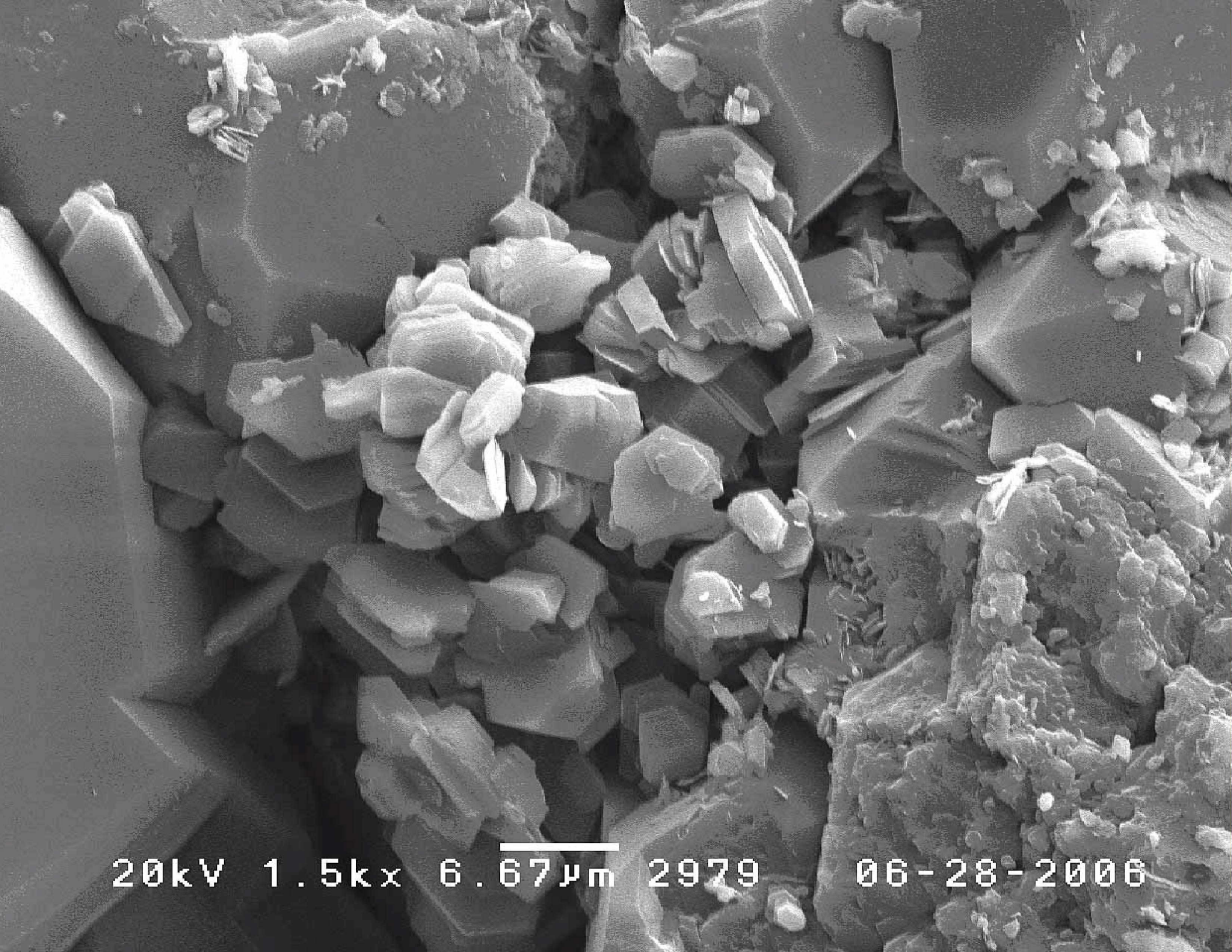
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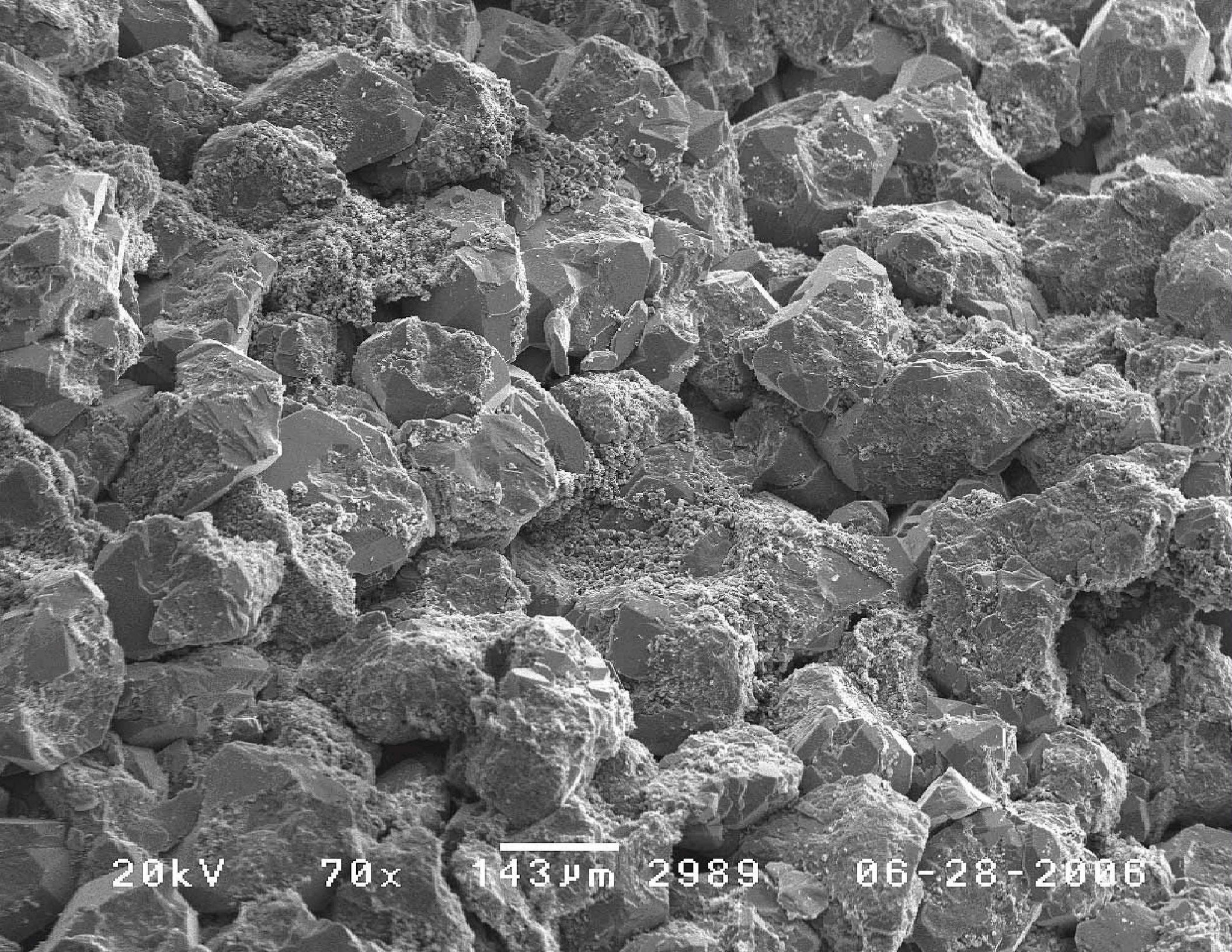
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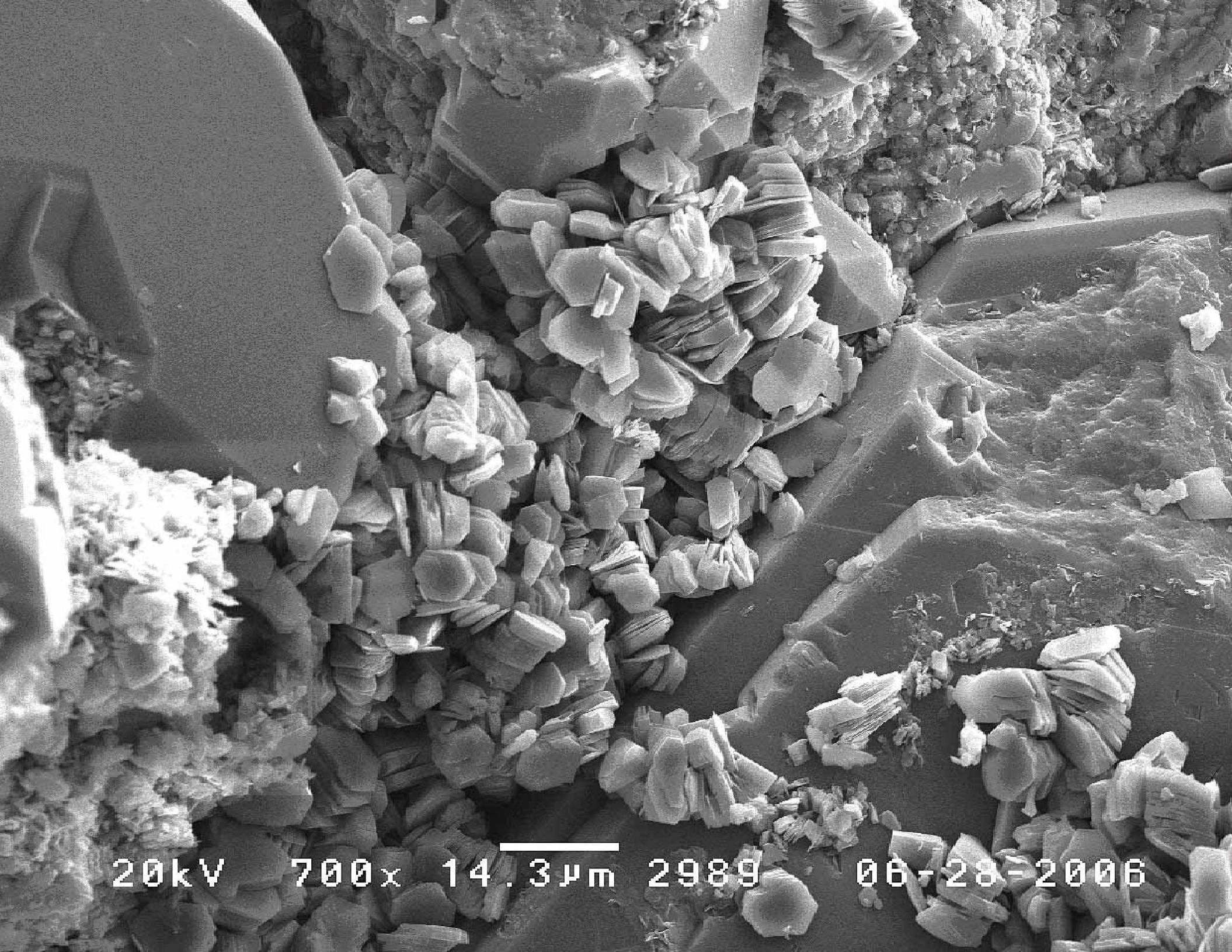
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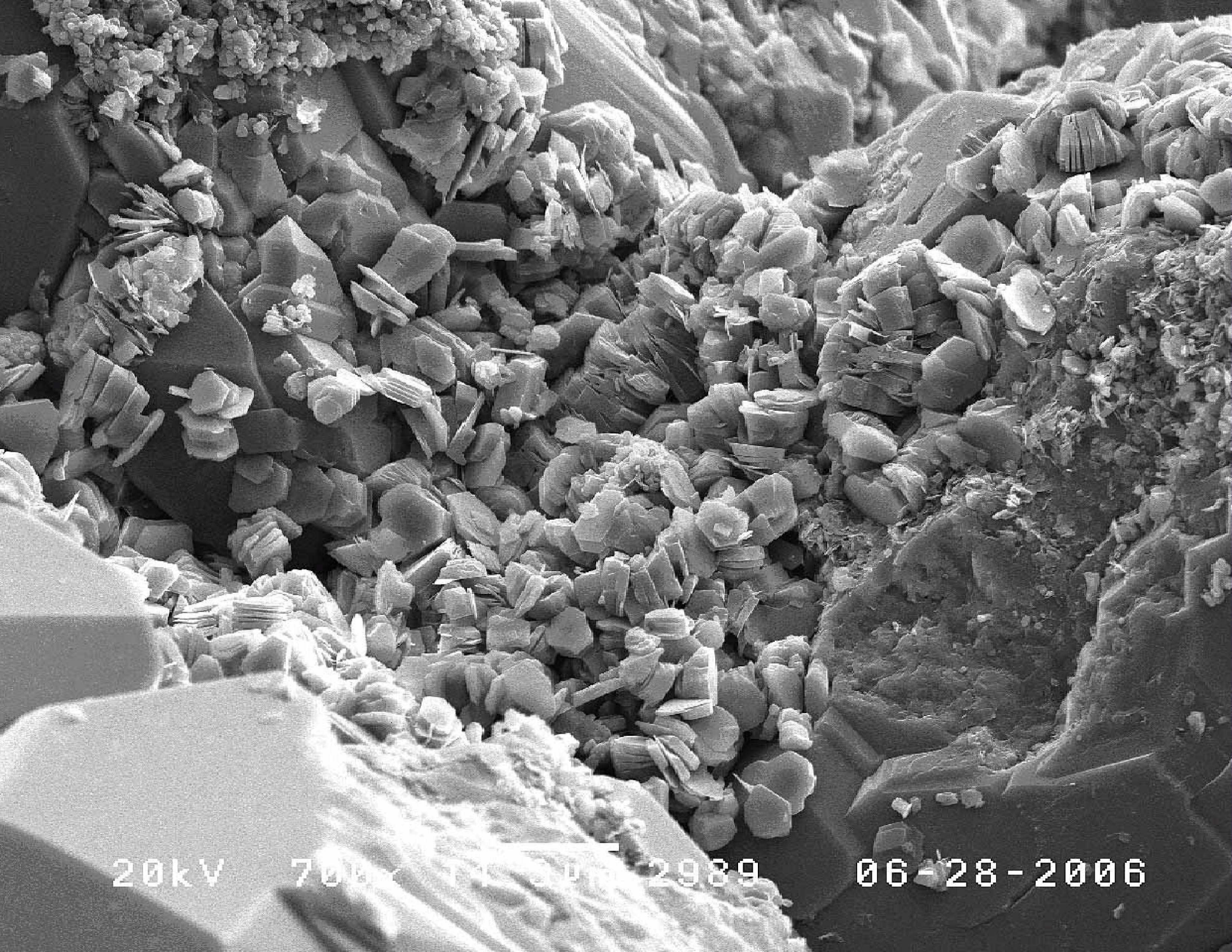
20kV 300x 33.3µm 2989 06-28-2006


20kV
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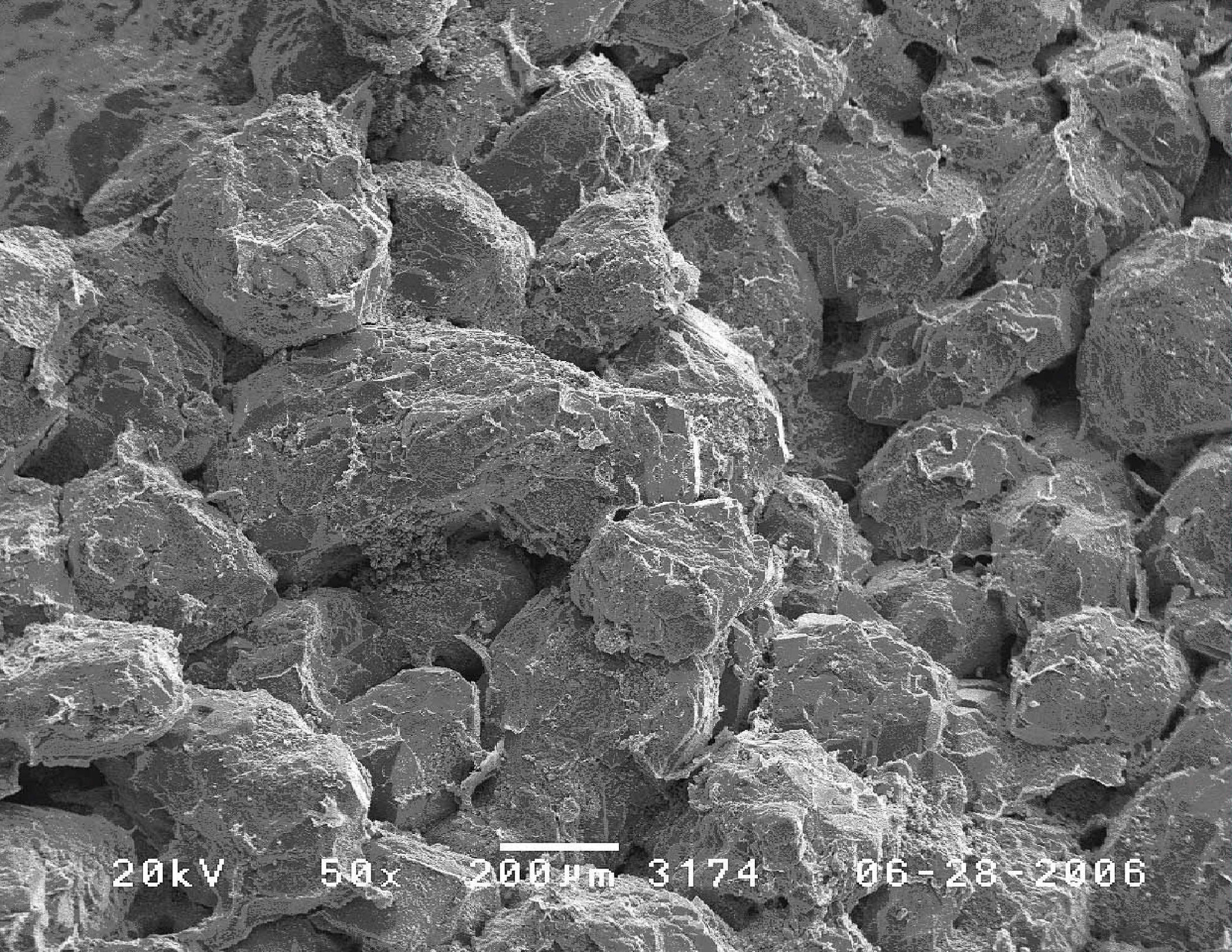
06-28-2006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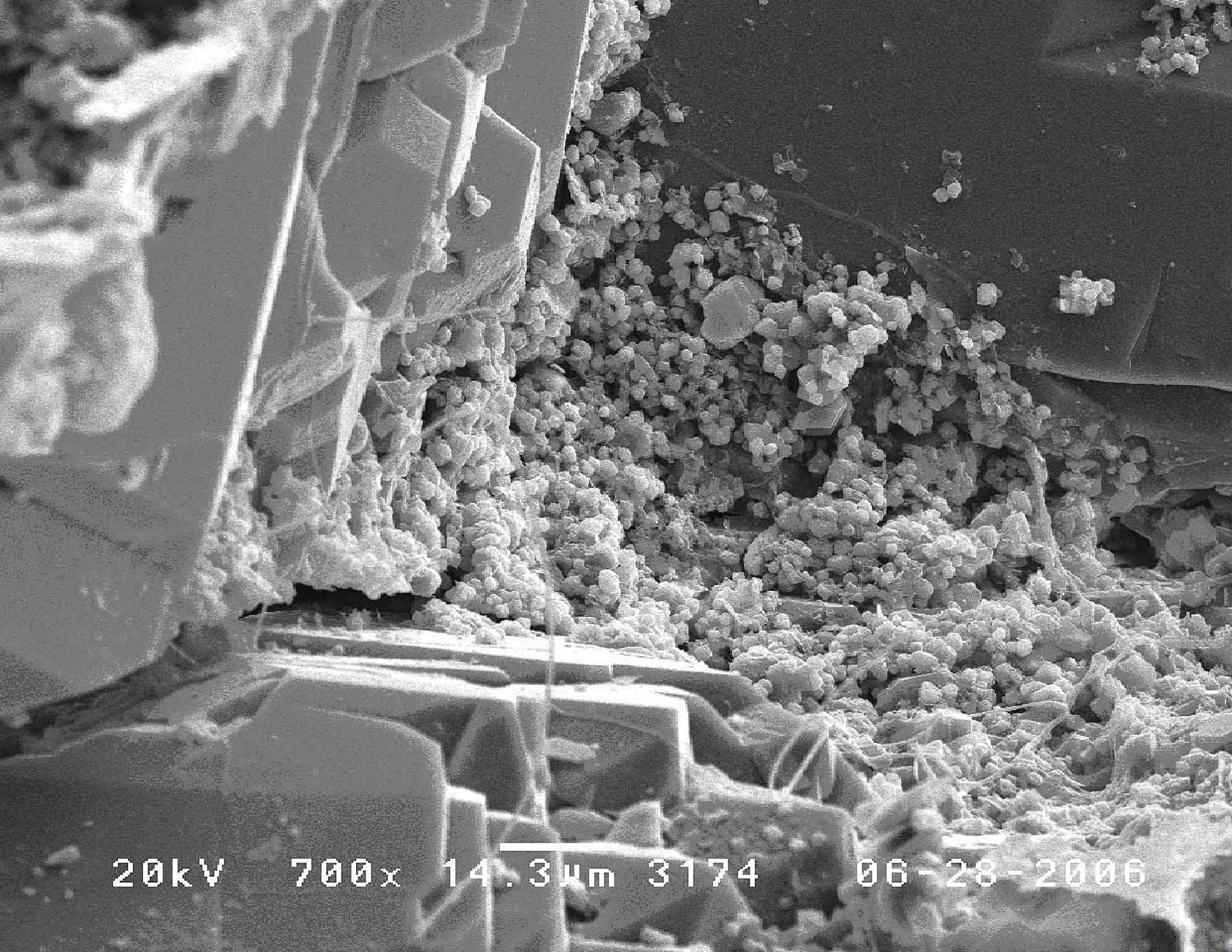
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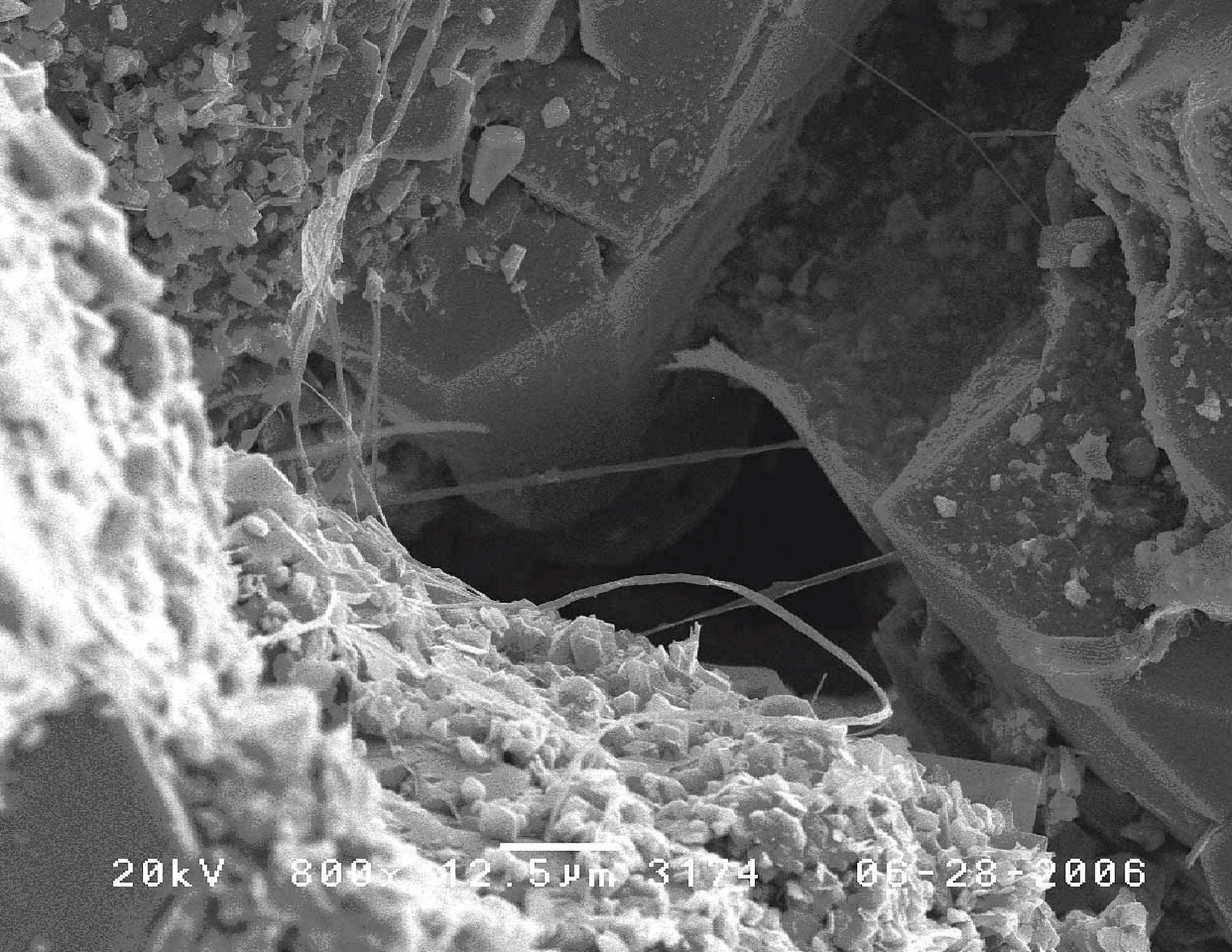
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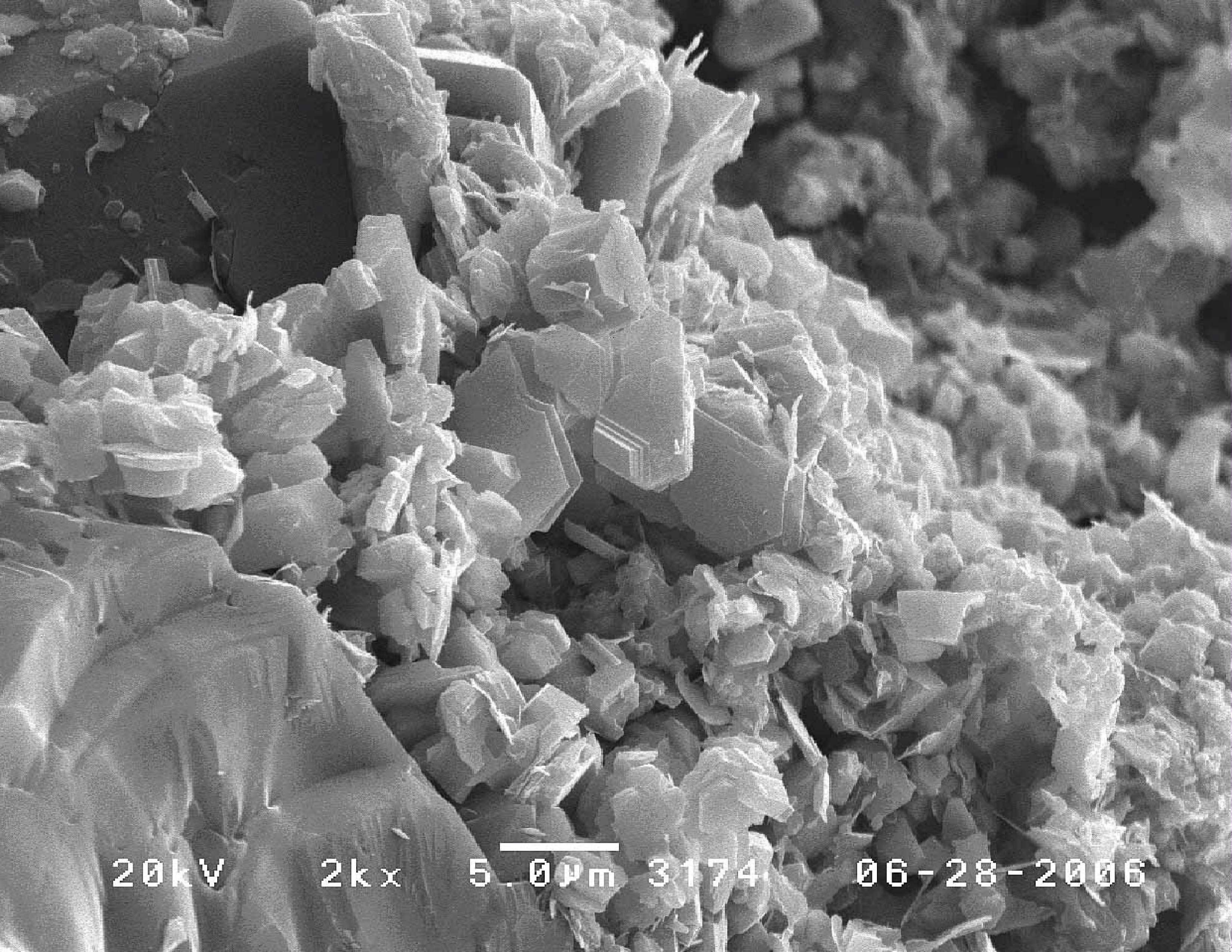
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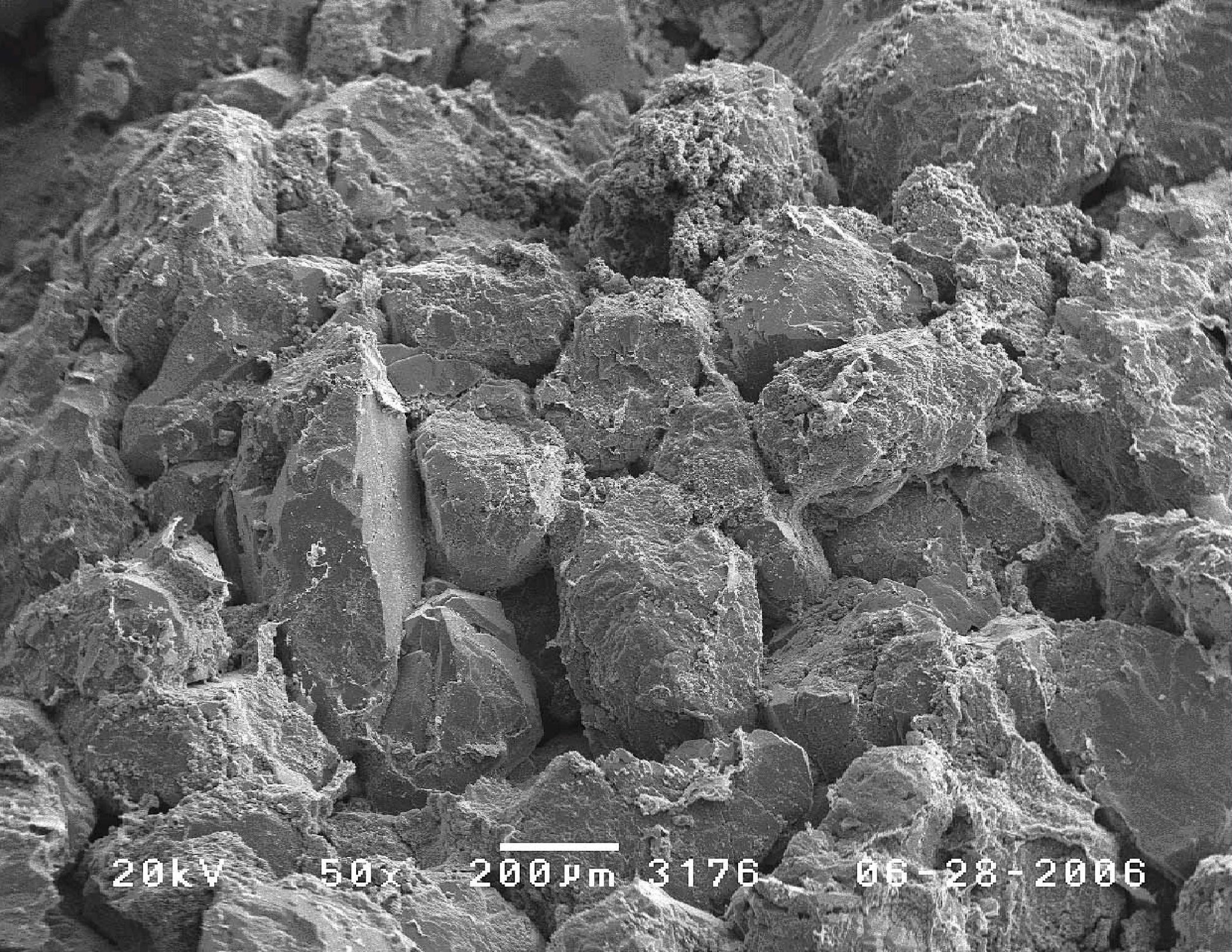
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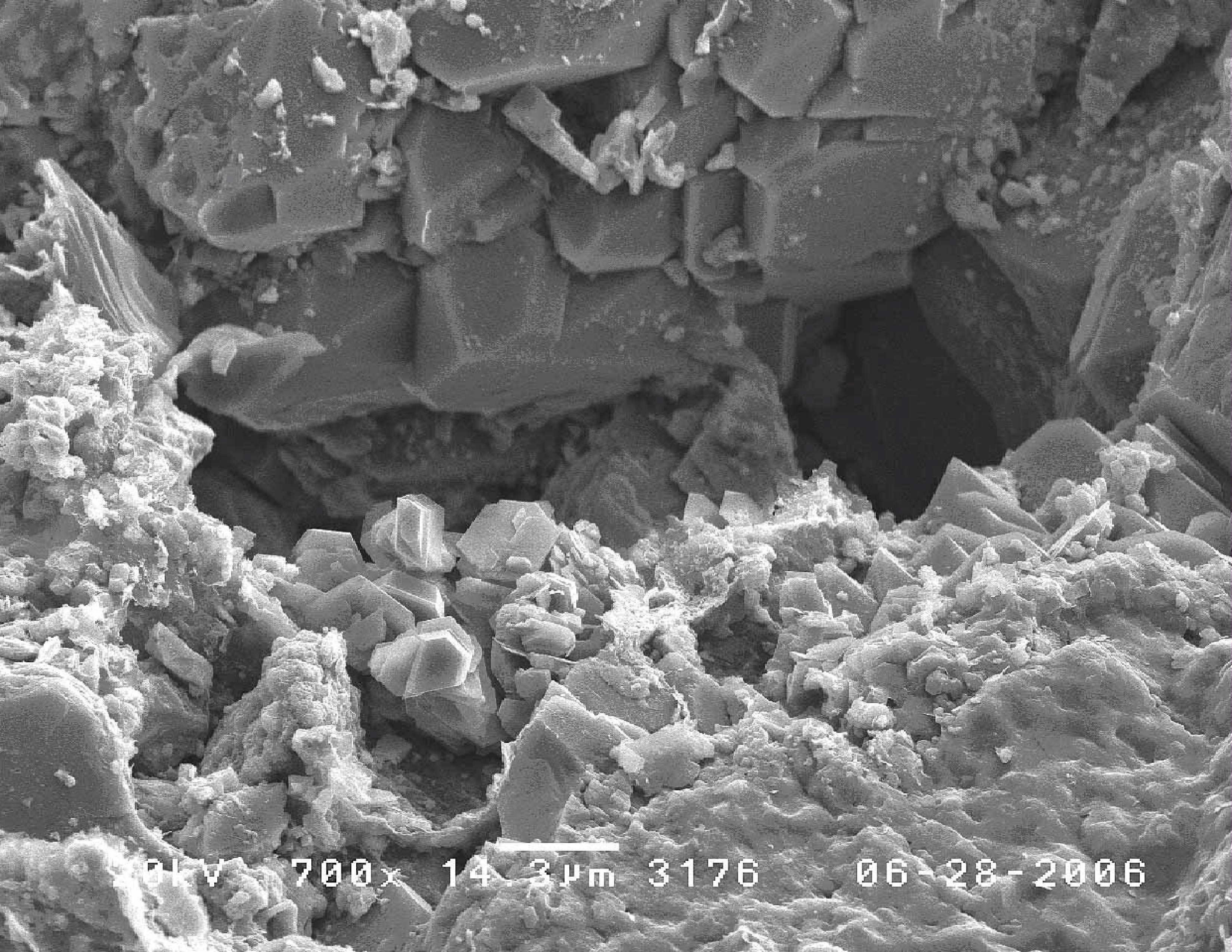
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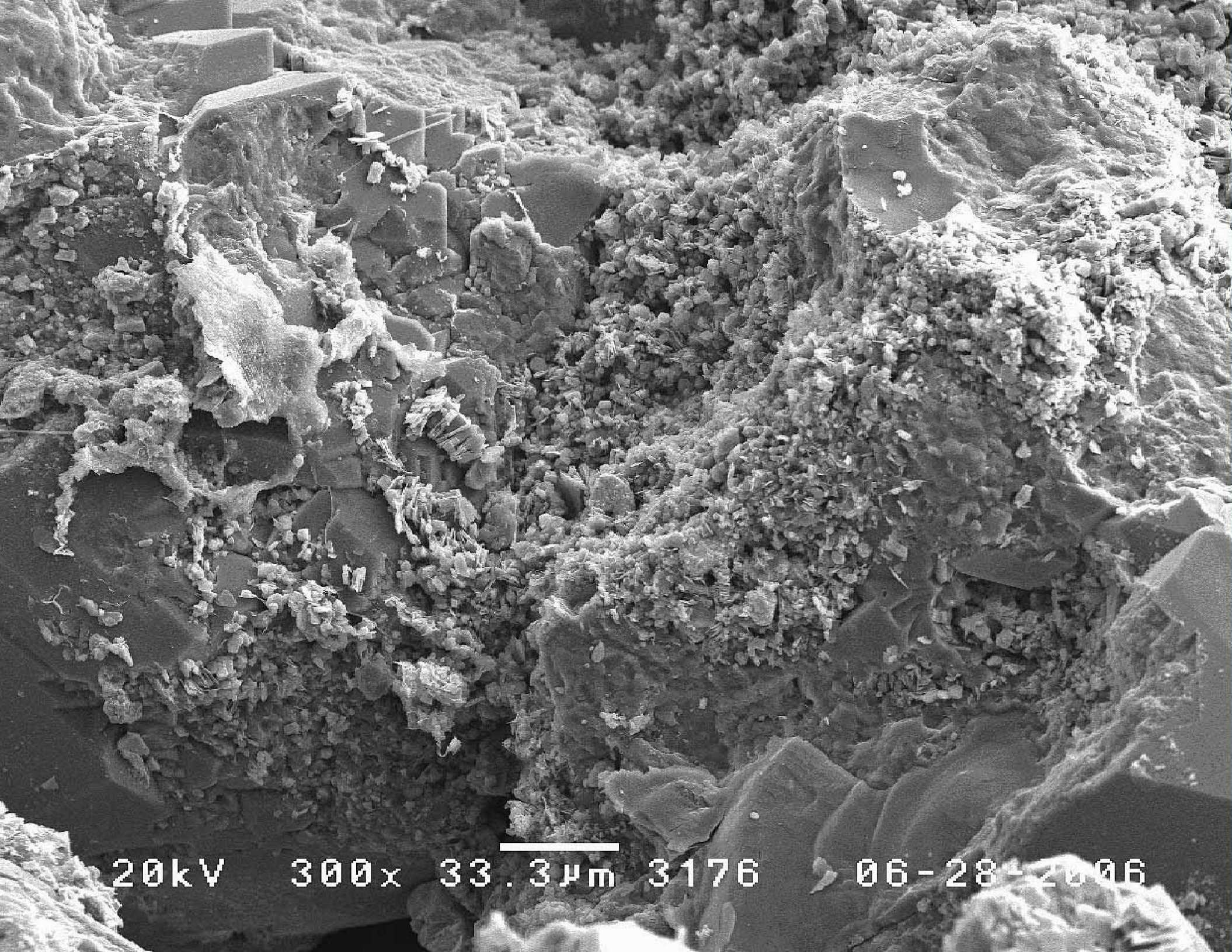
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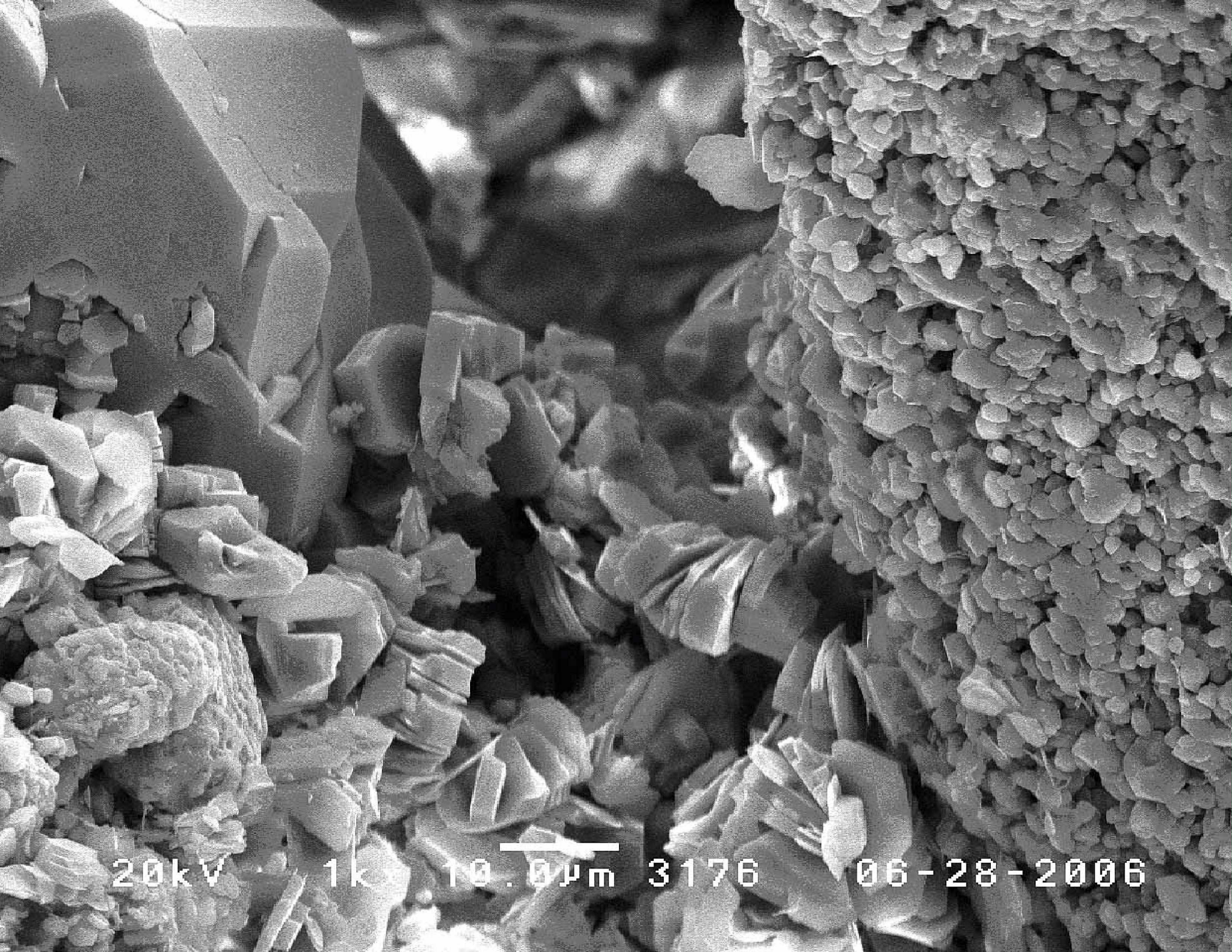
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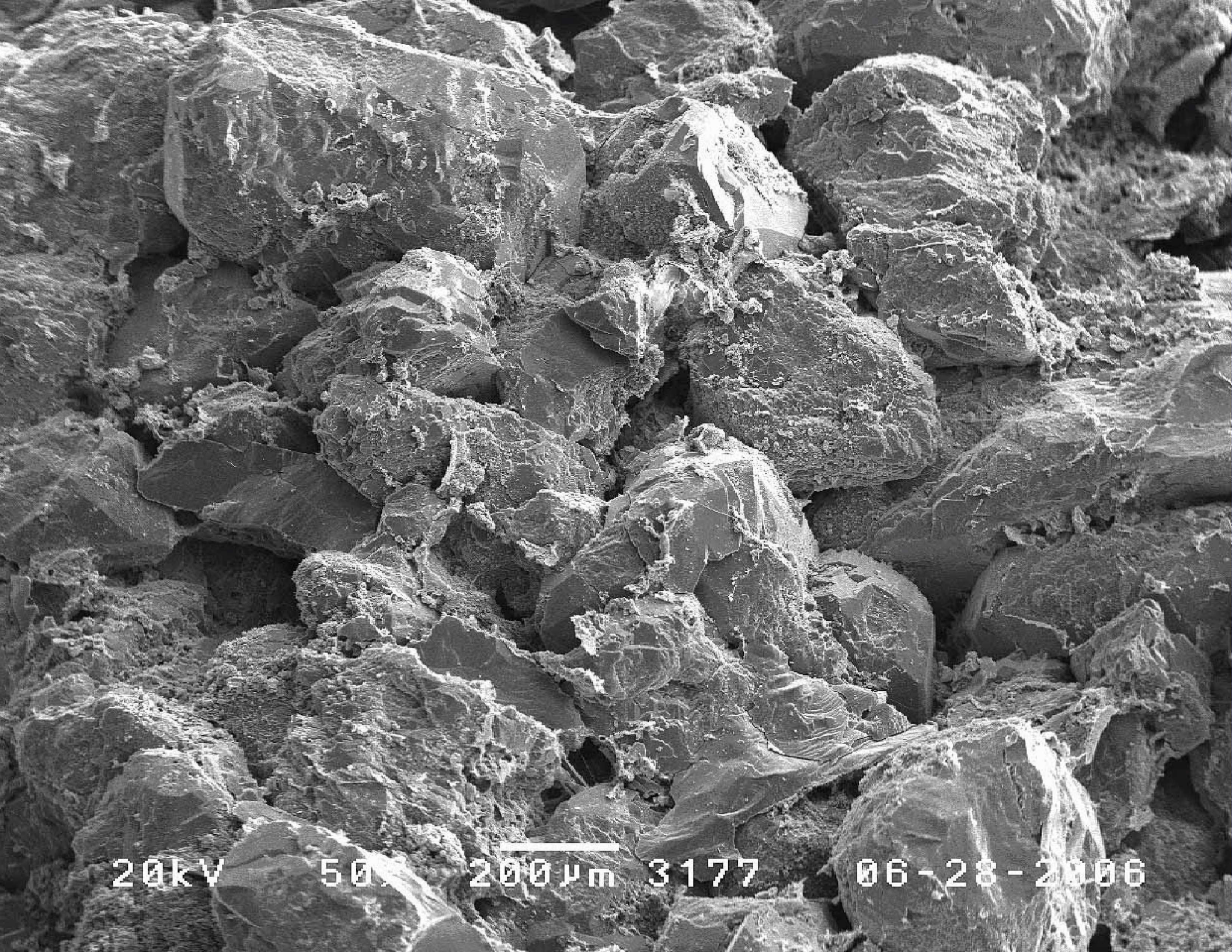
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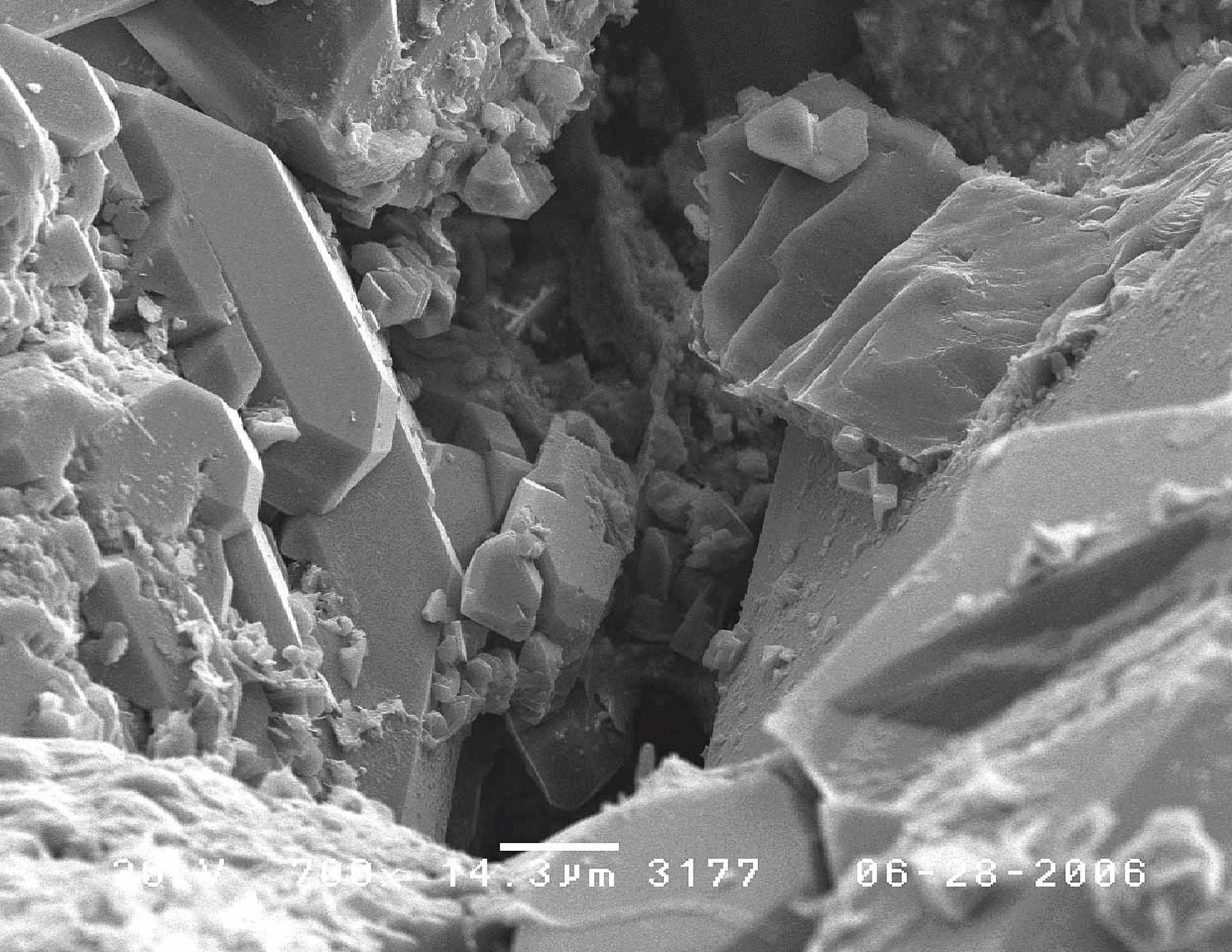
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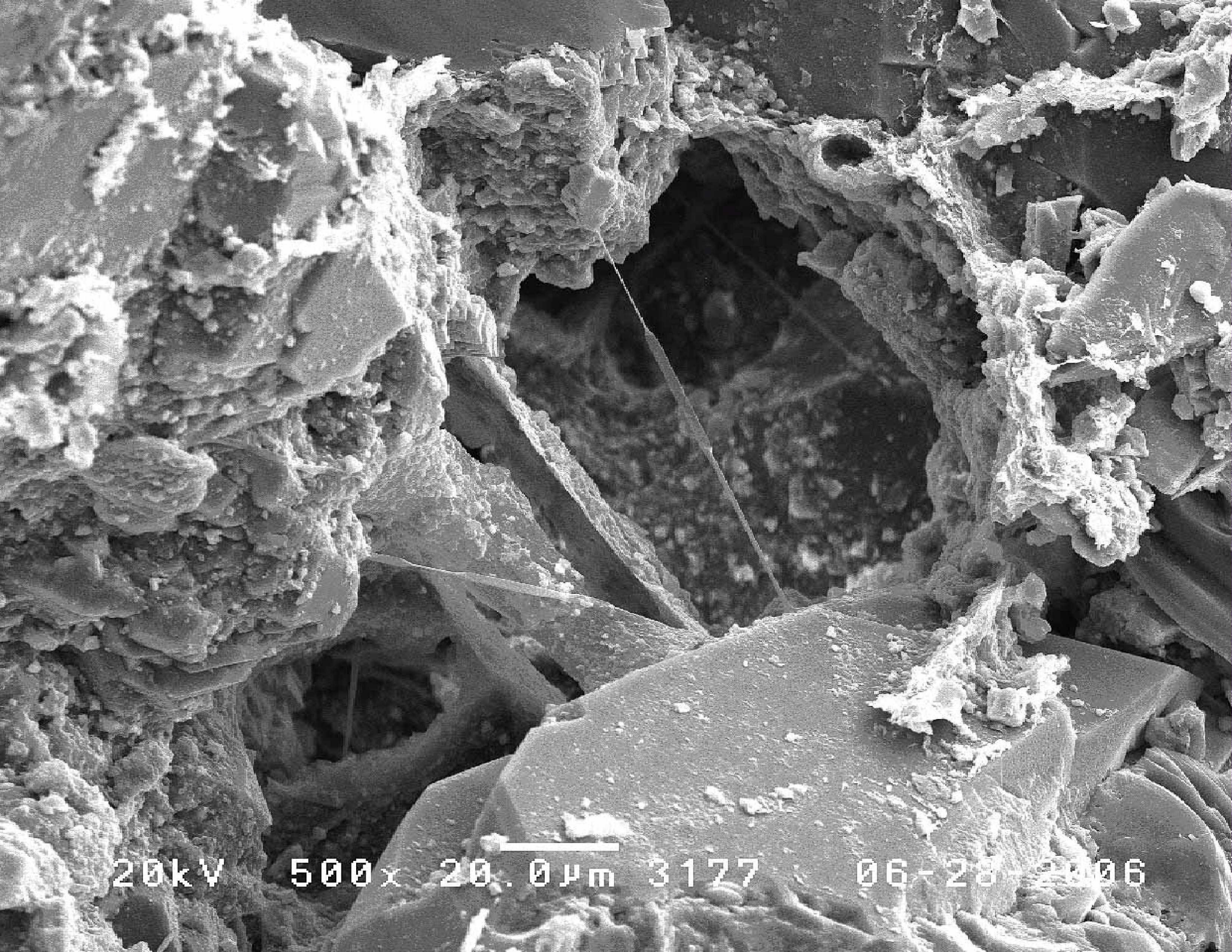
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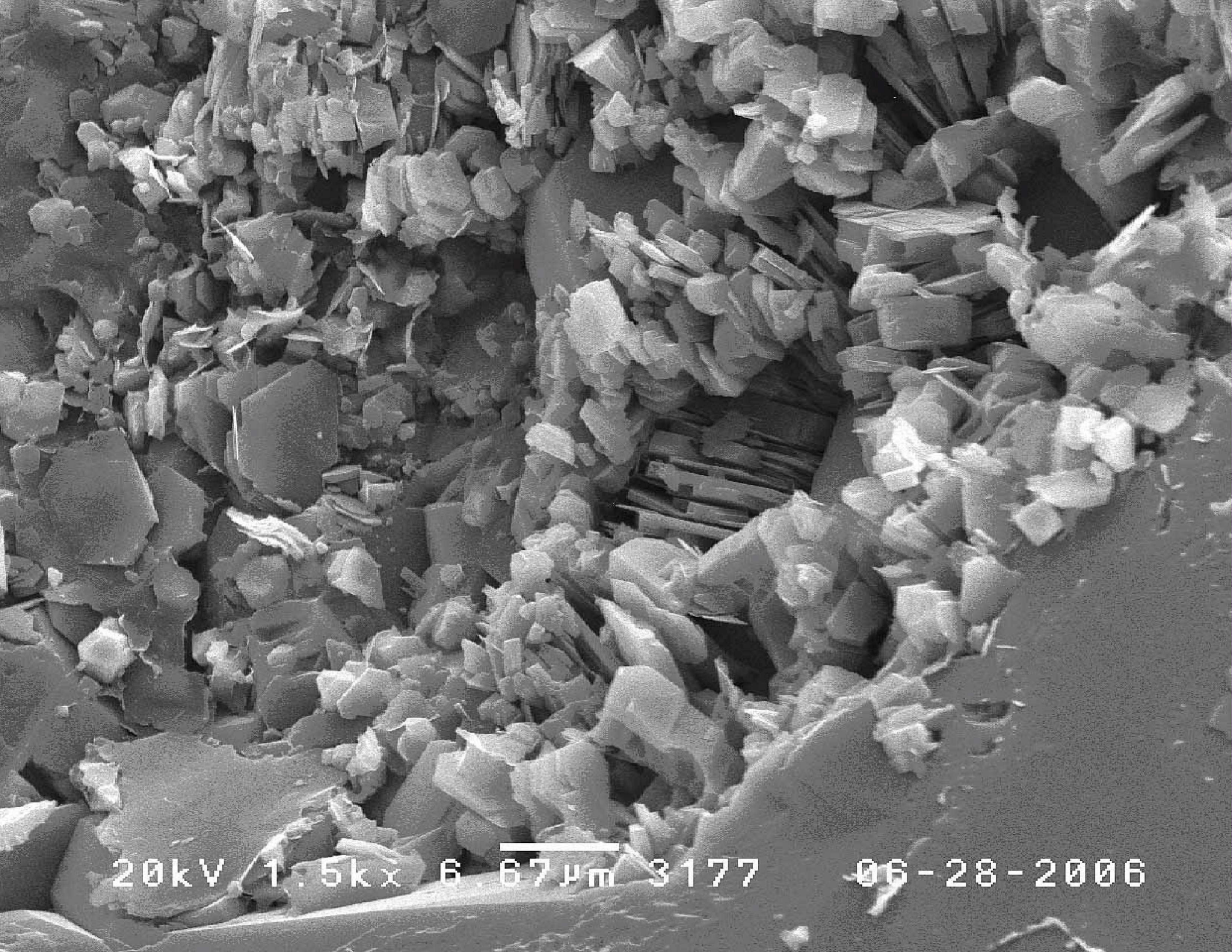
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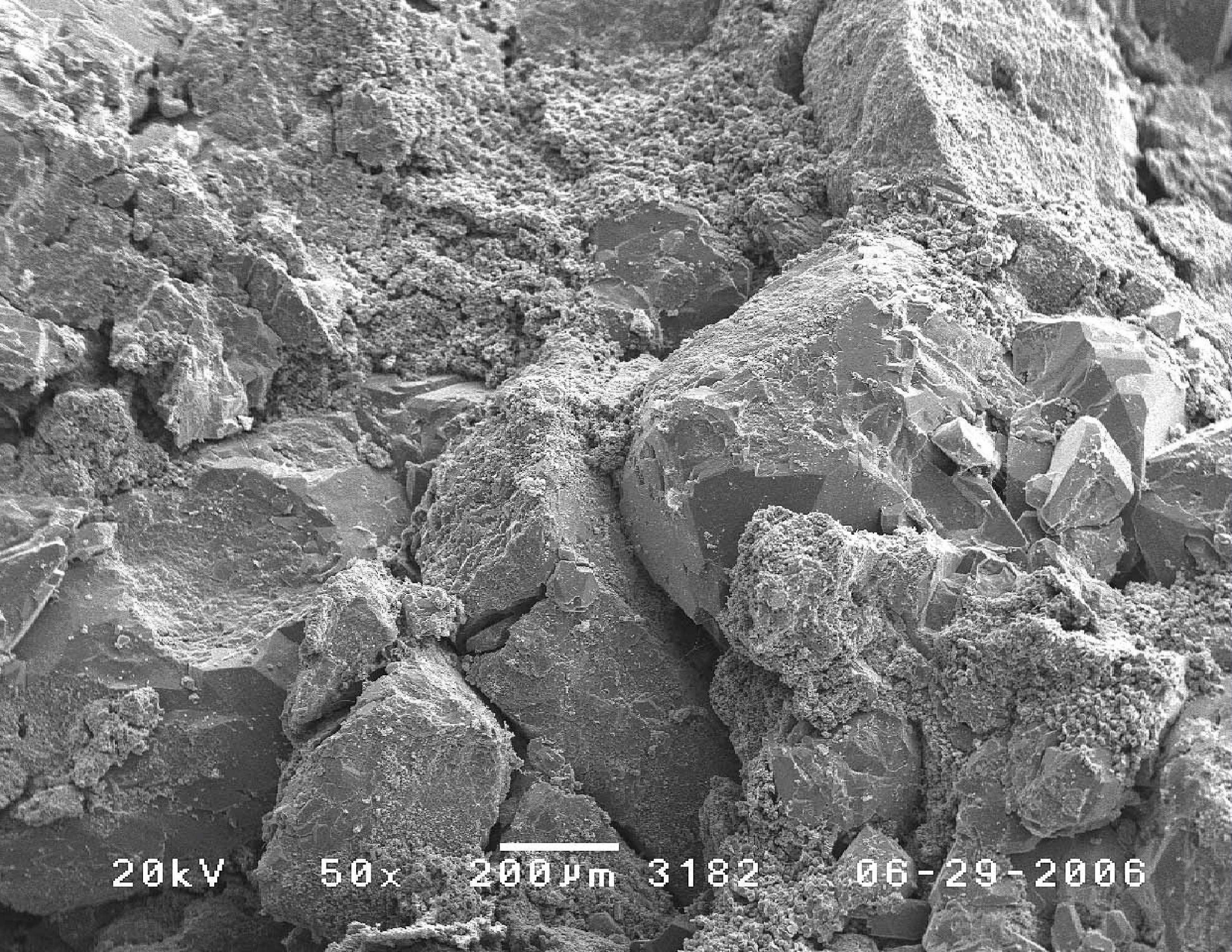
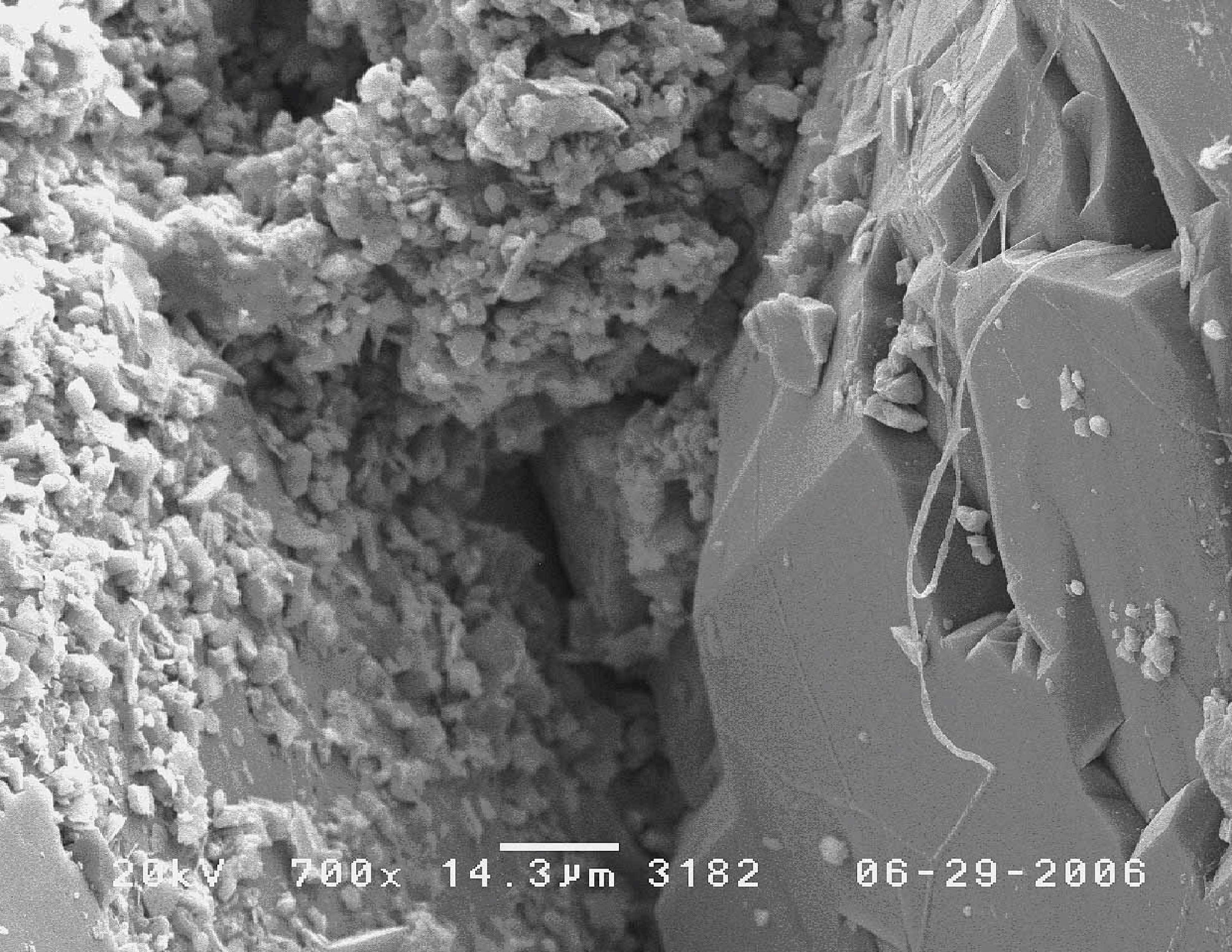

20kV 50x 200µm 3182 06-29-2006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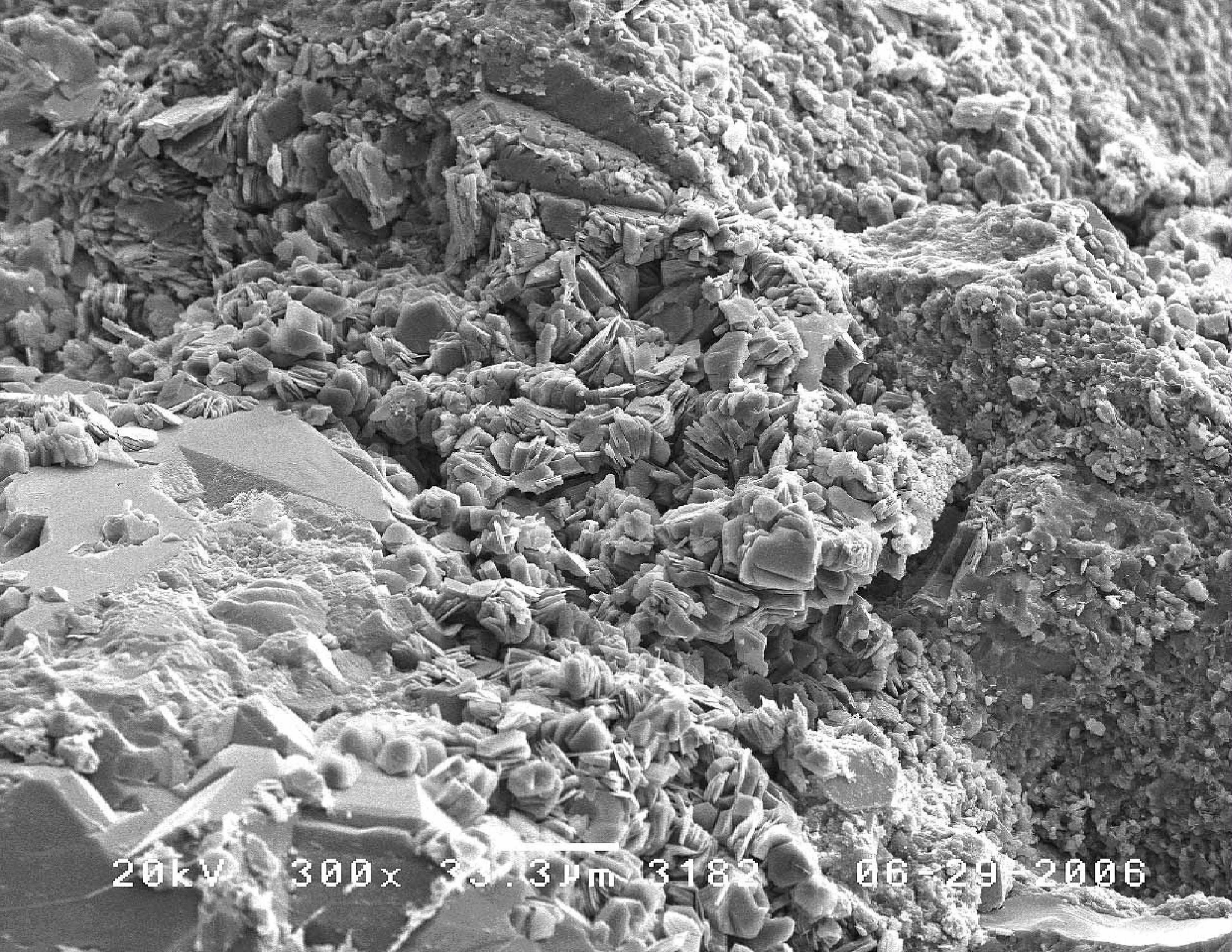
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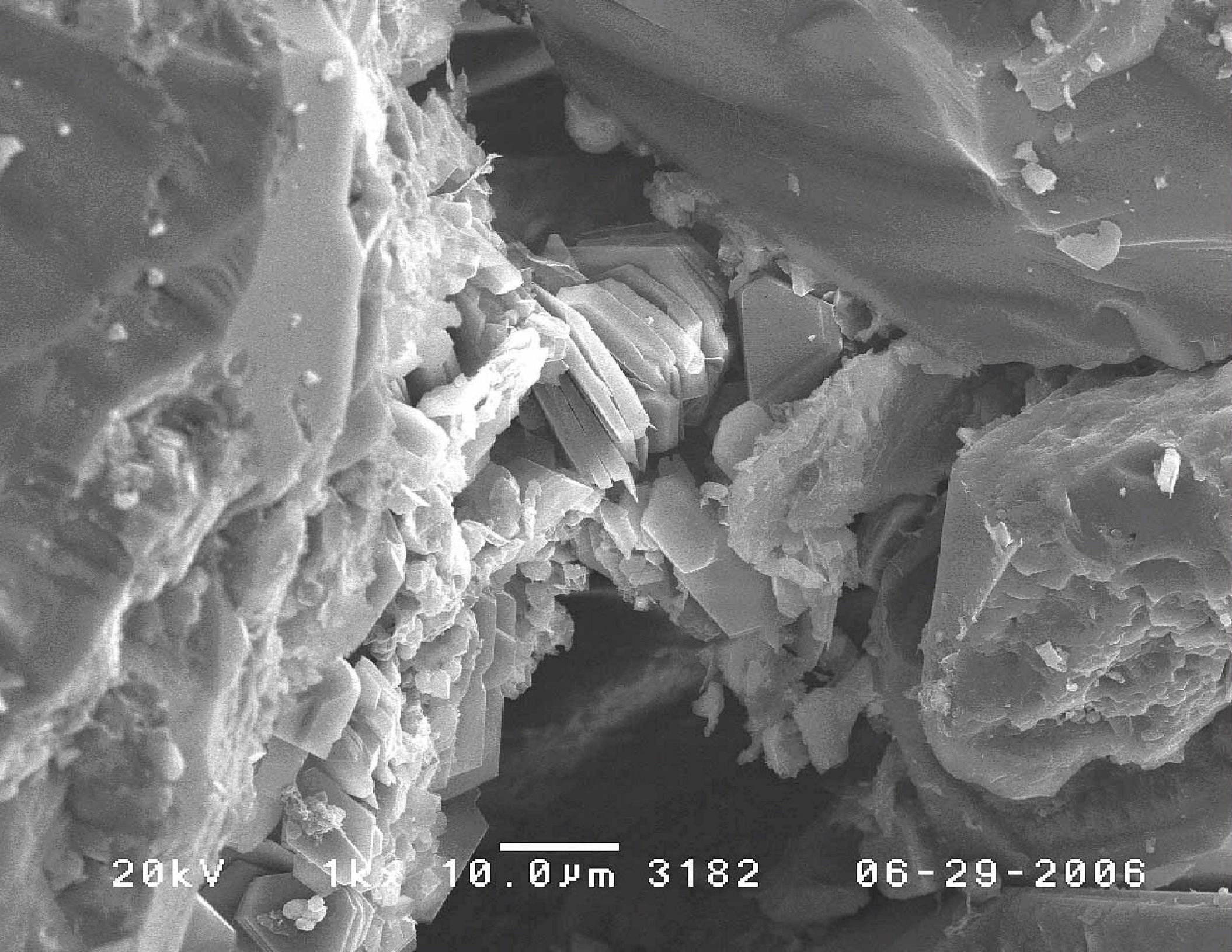
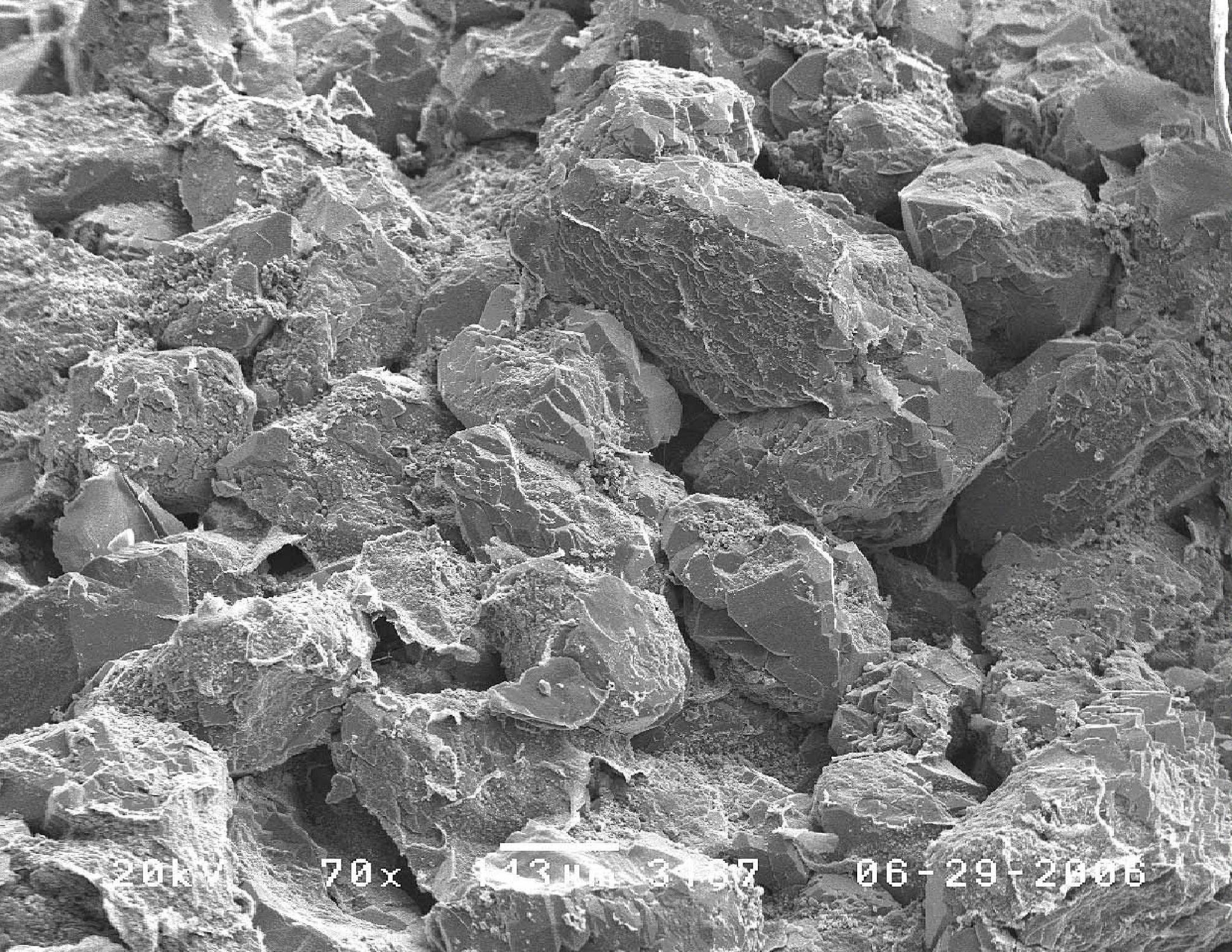
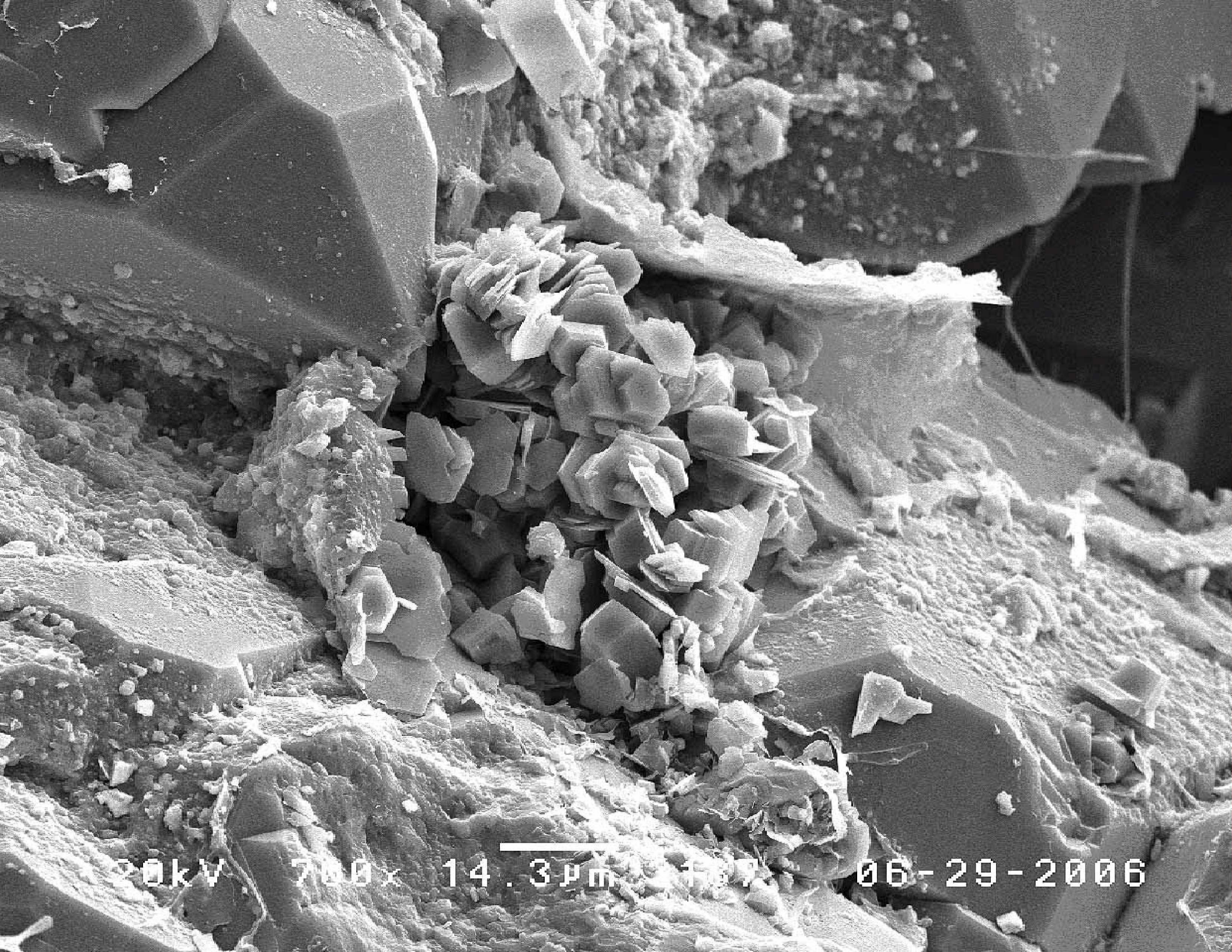

20kV 1k 10.0µm 3182 06-29-2006


20kV 70x 143µm 3497 06-29-2006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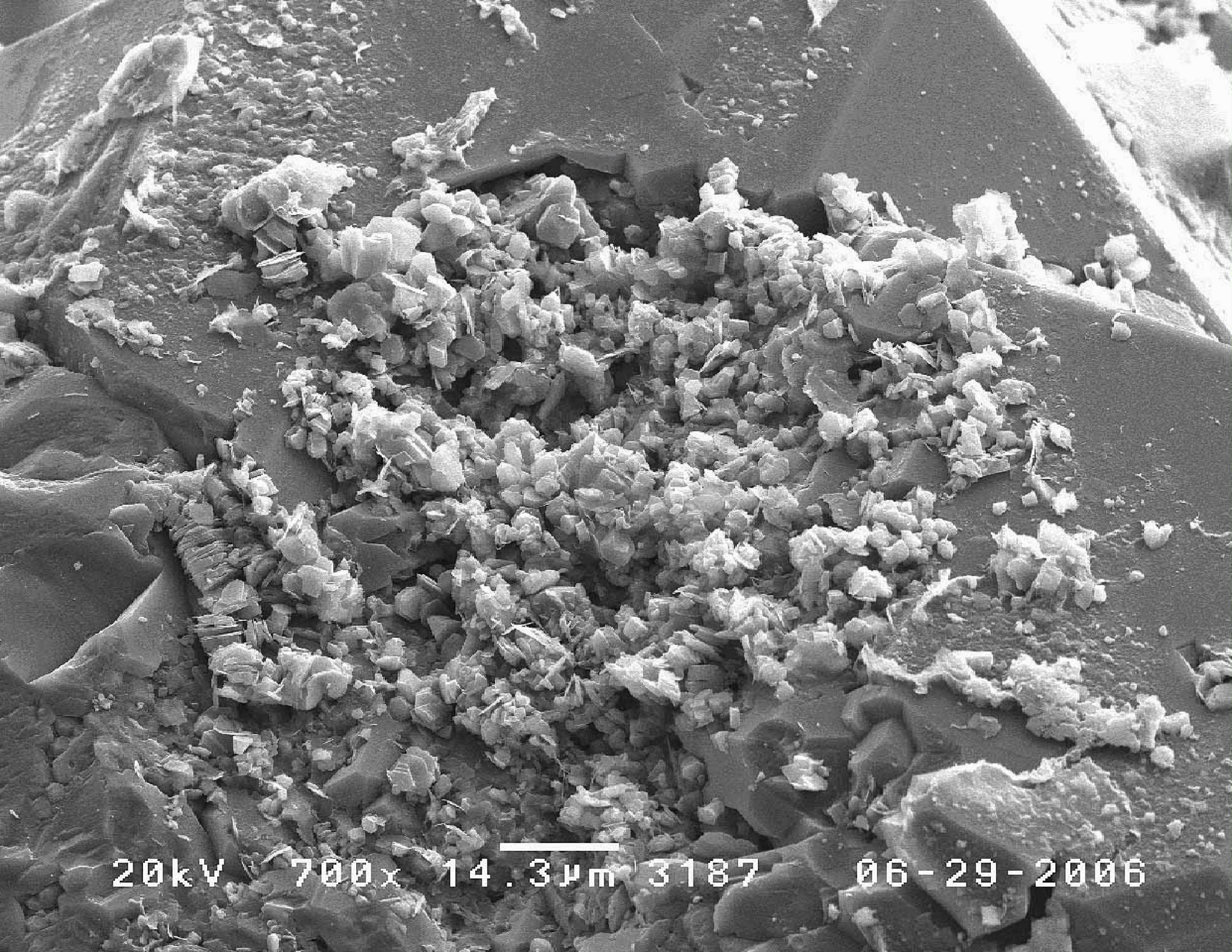
06-29-2006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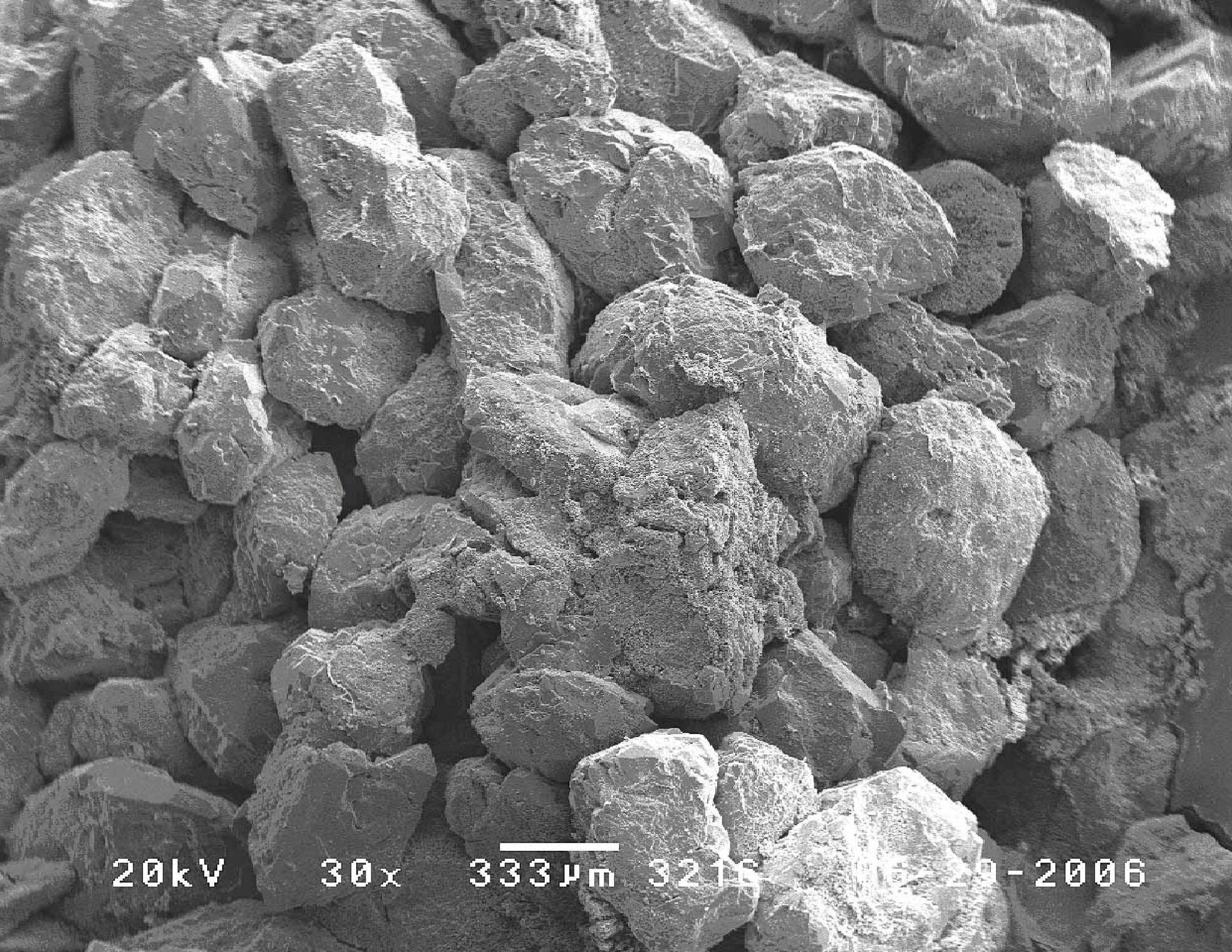
20kV 1kx 10.0µm 3187 06-29-2006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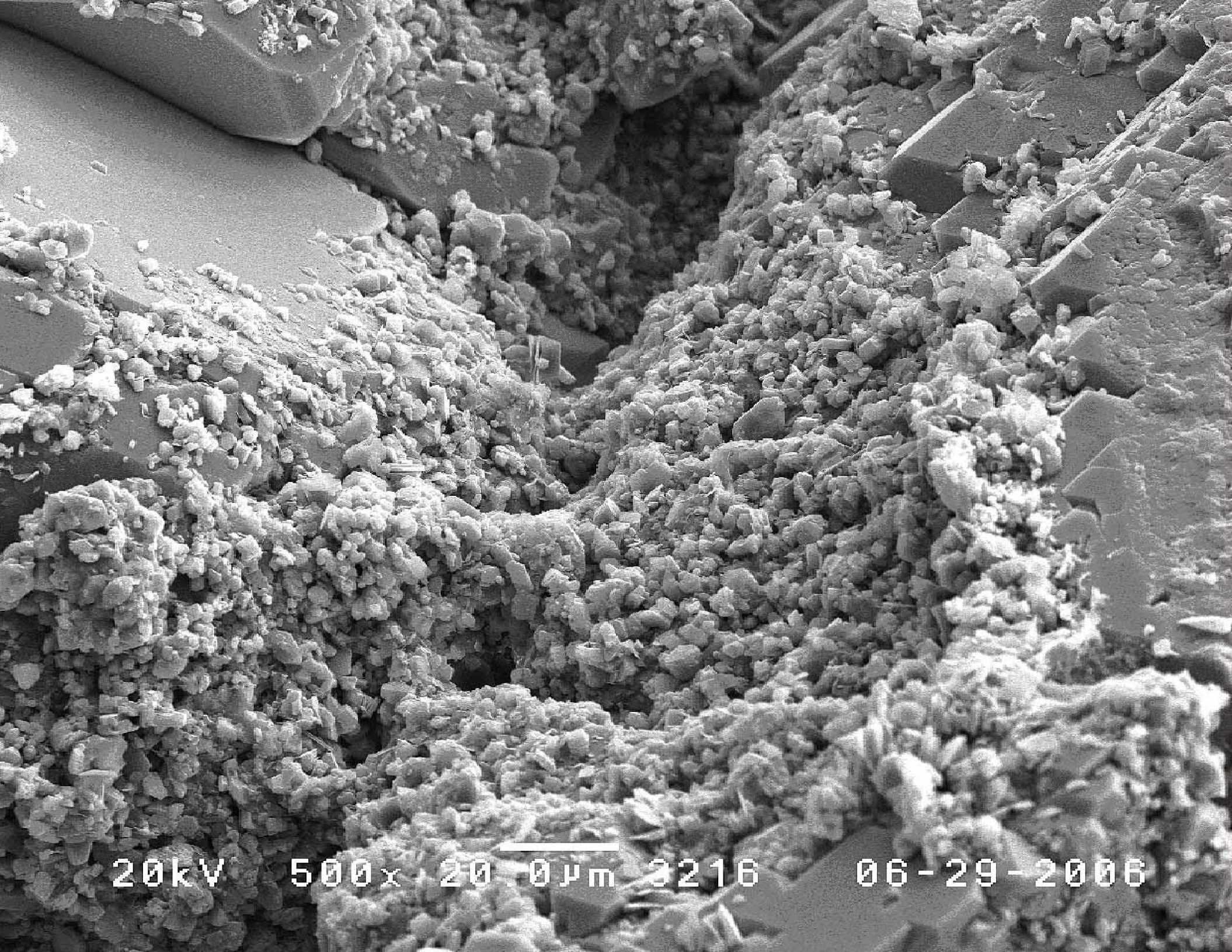
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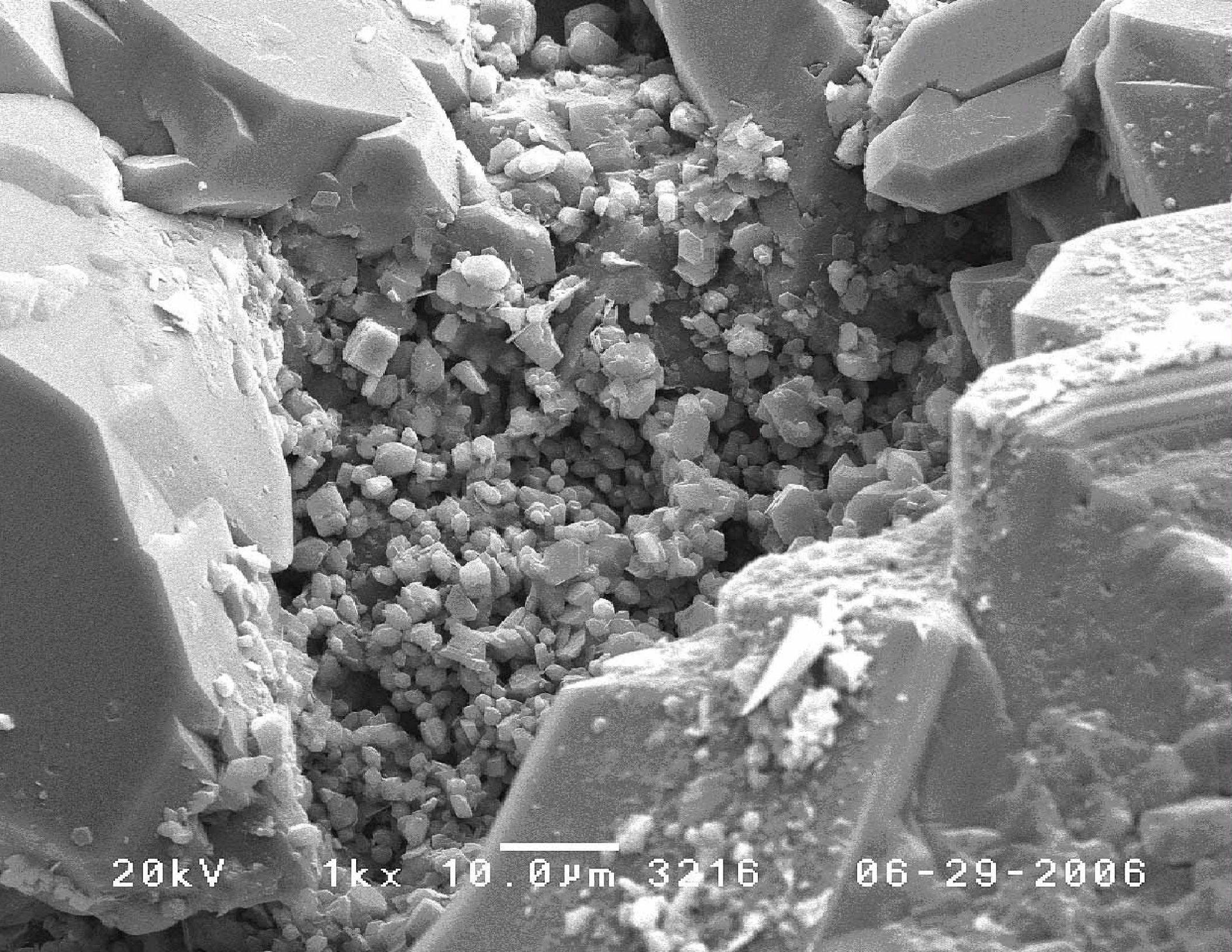
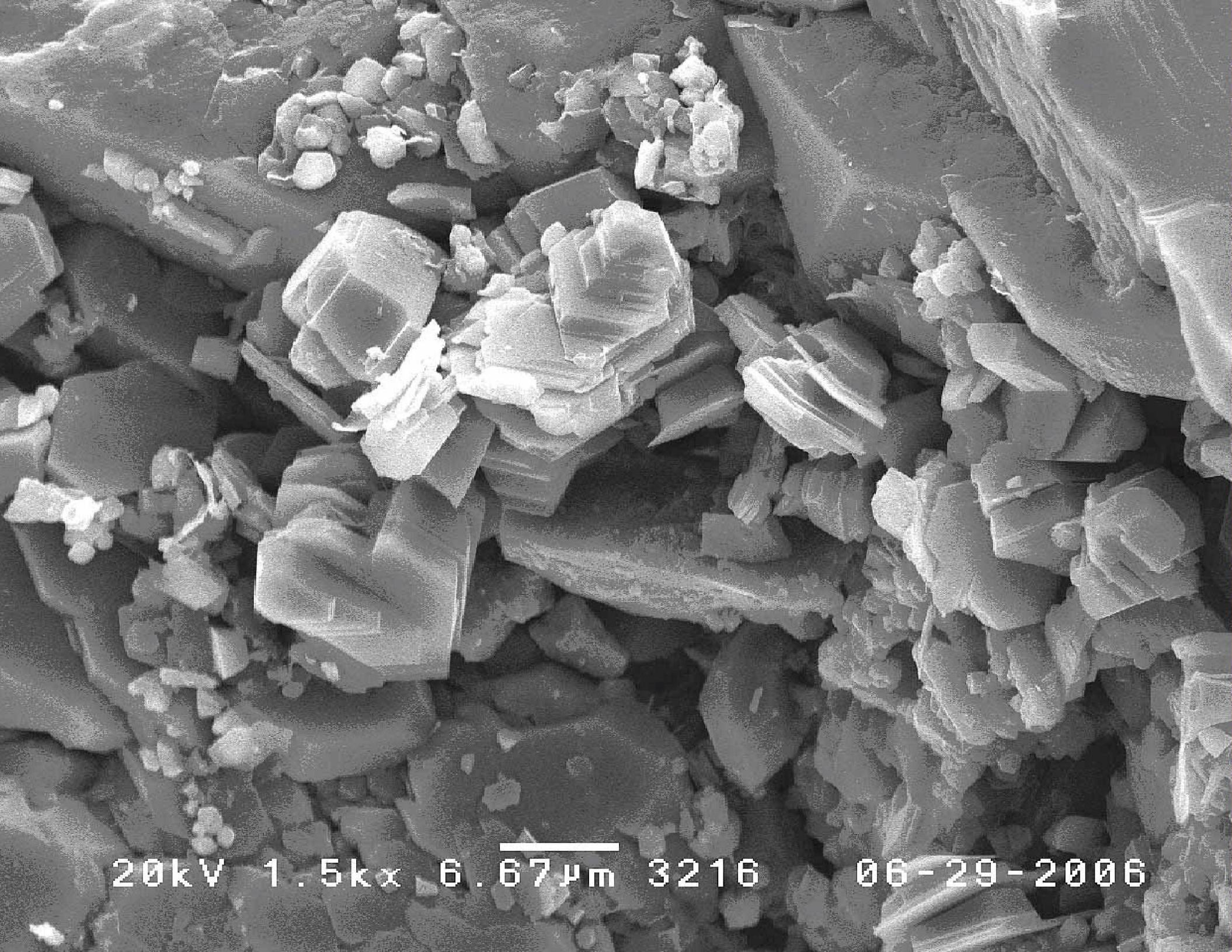

20kV 1kx 10.0μm 3216 06-29-2006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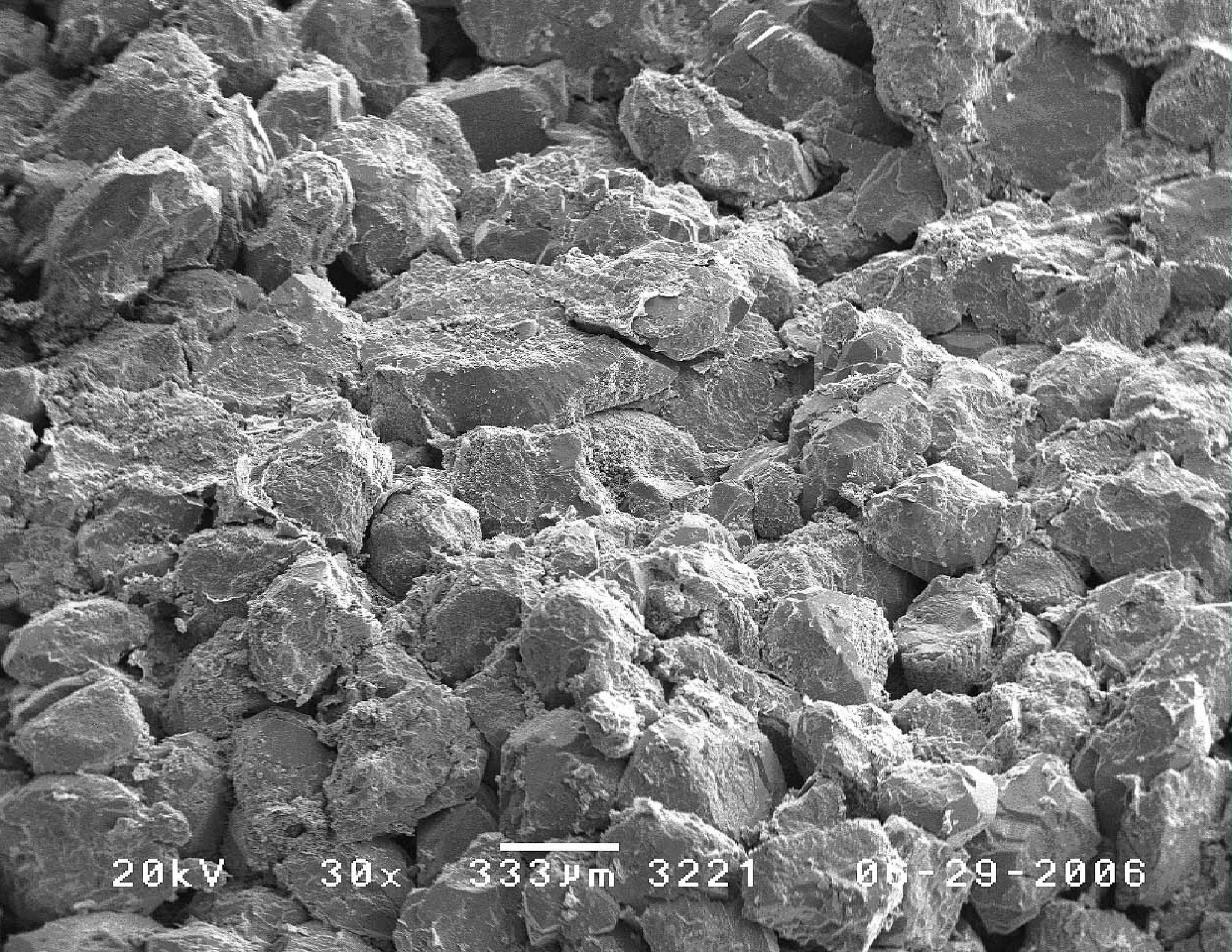
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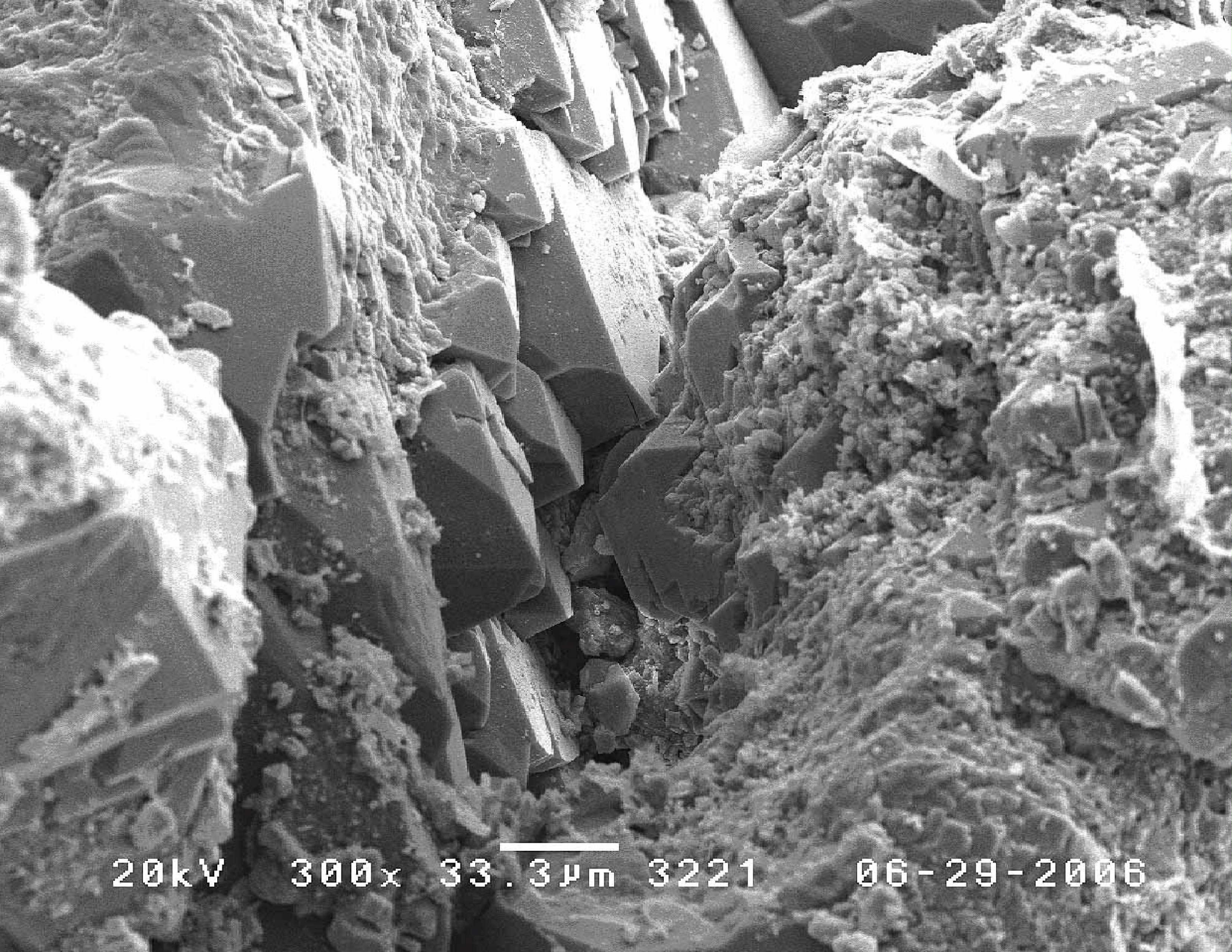
20kV 50 10.0µm 3221 06-29-2006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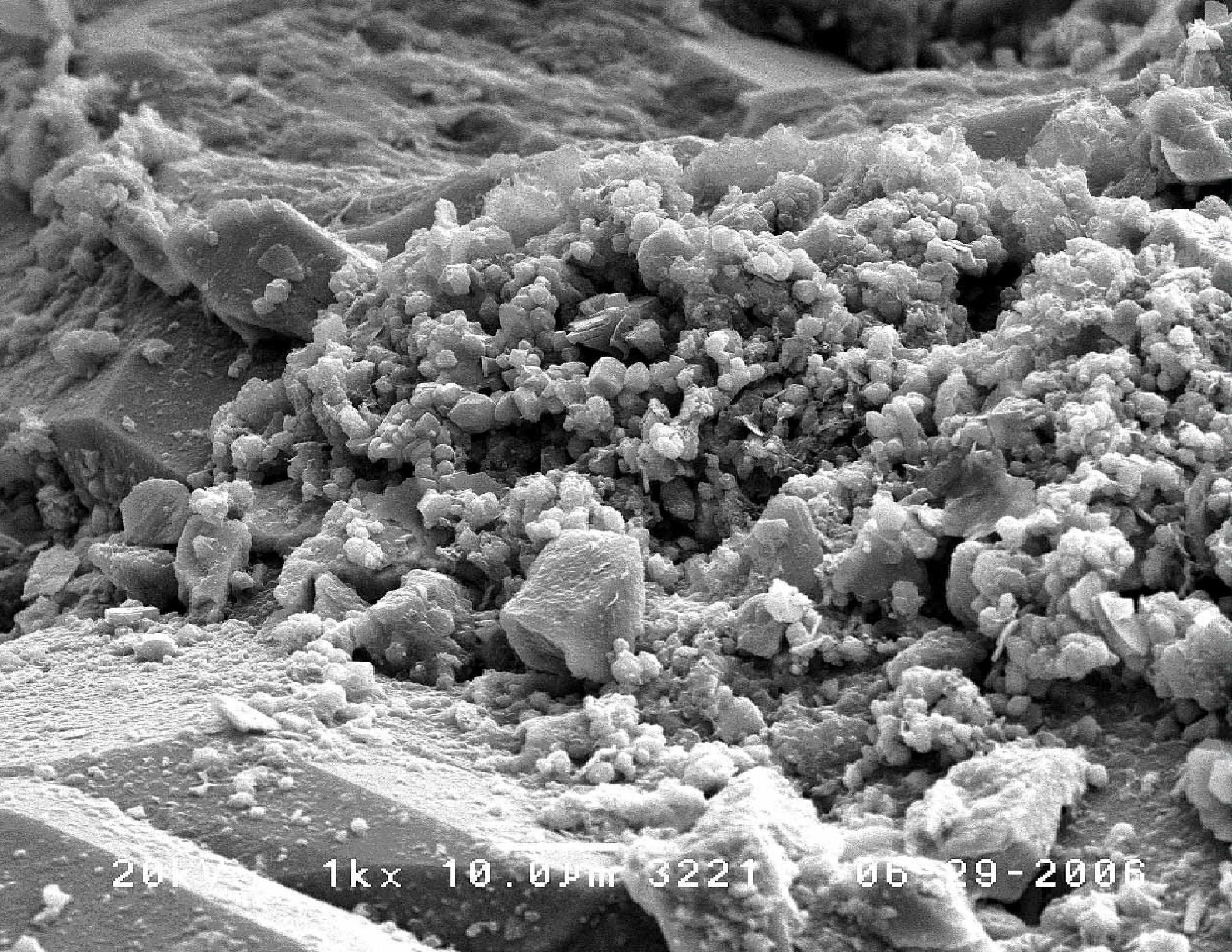
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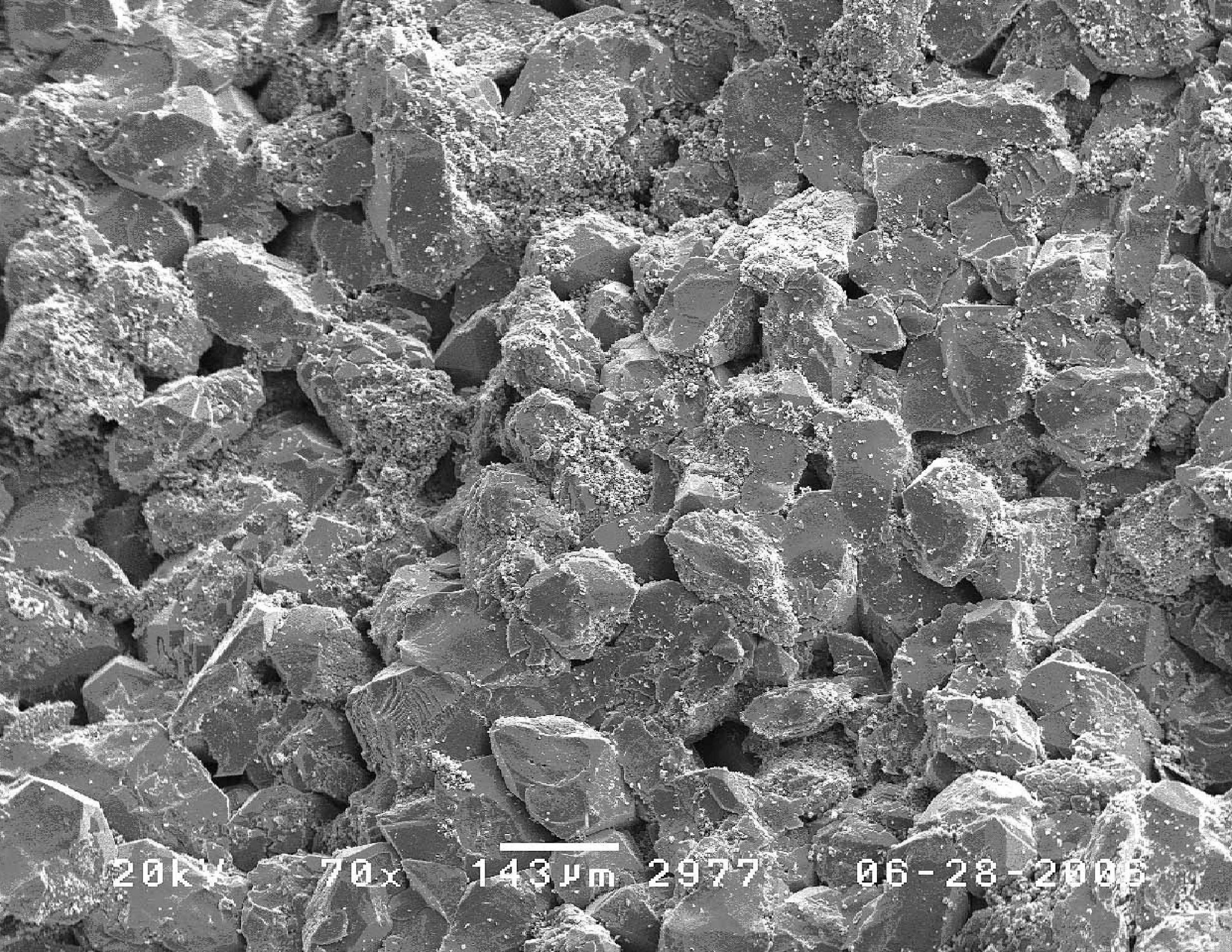
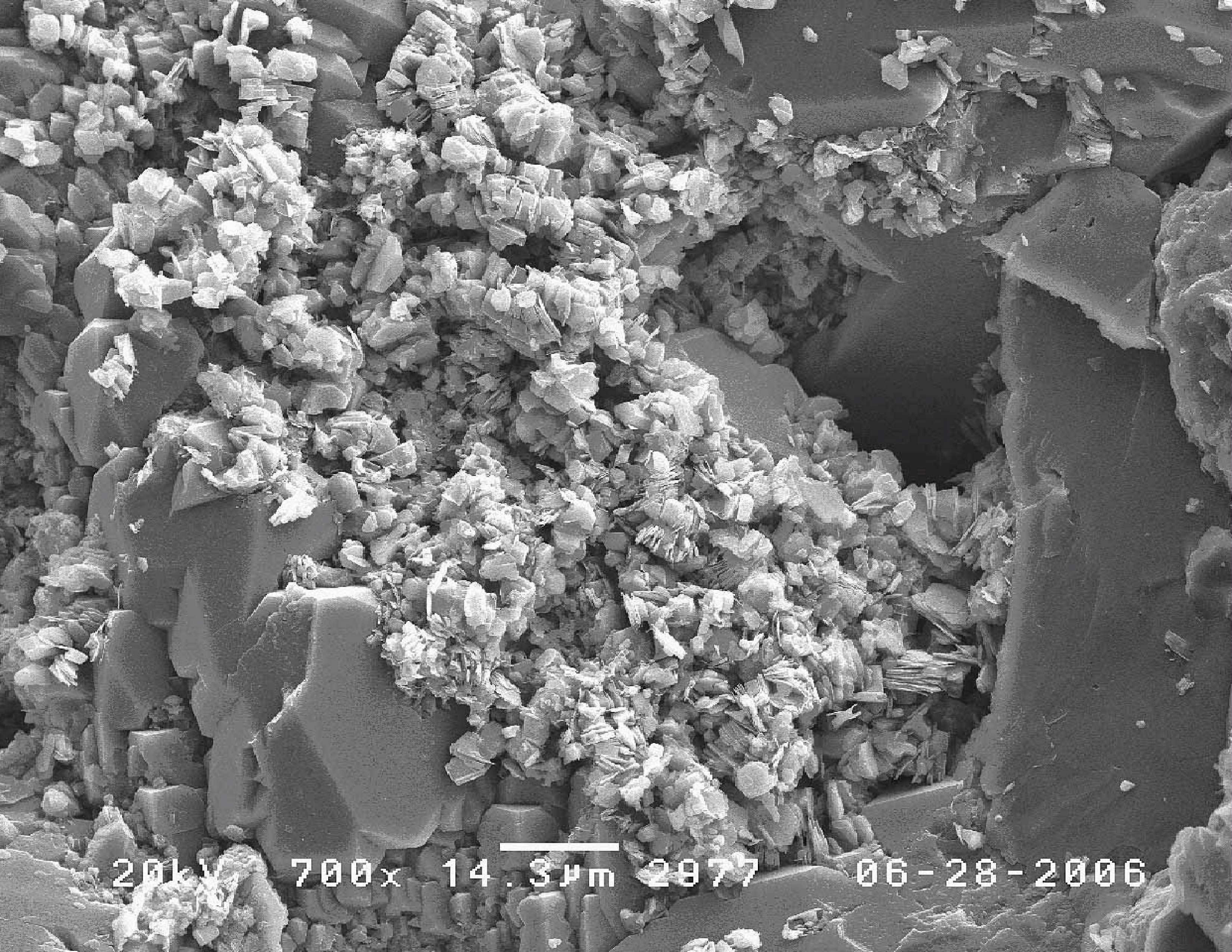

20kV 70x 143µm 2977 06-28-2008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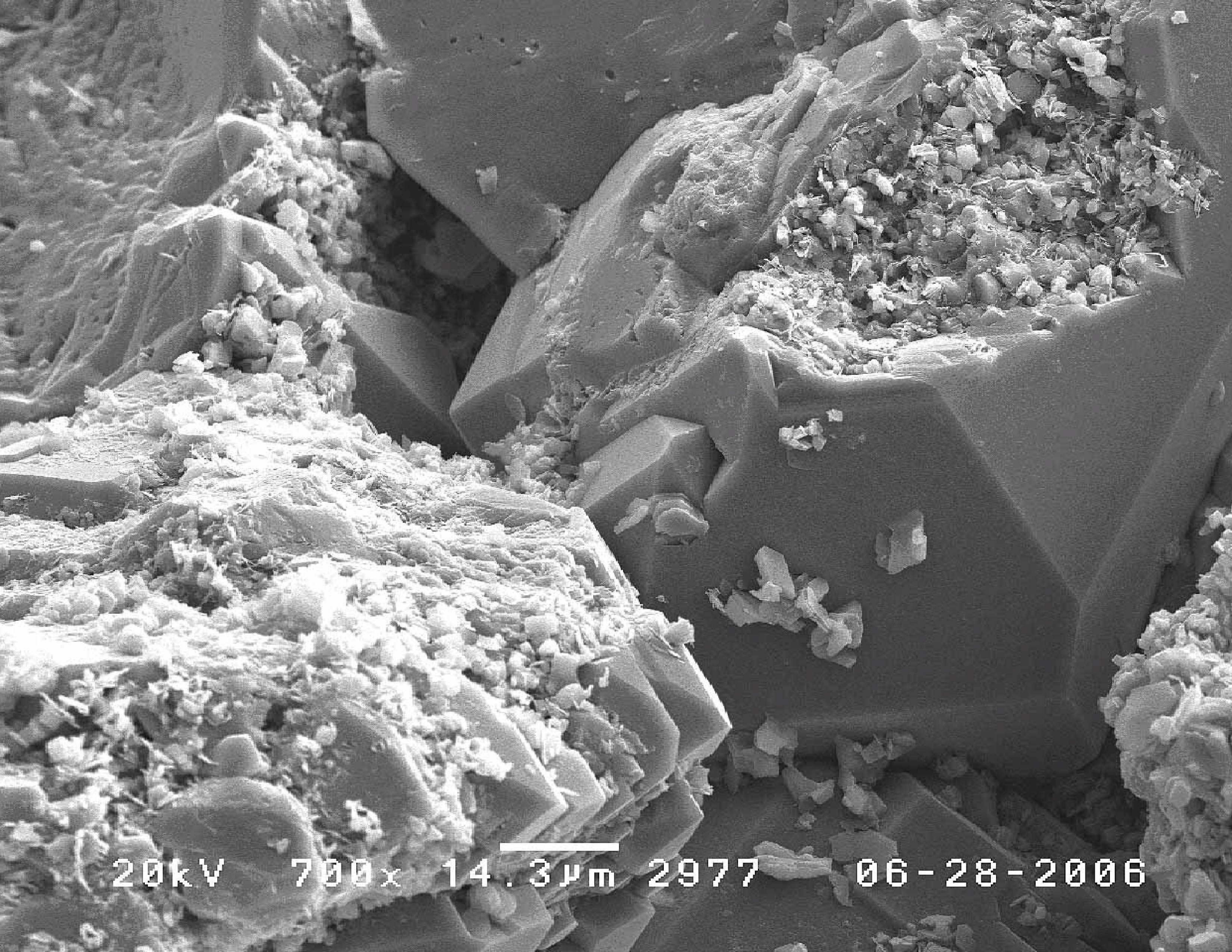
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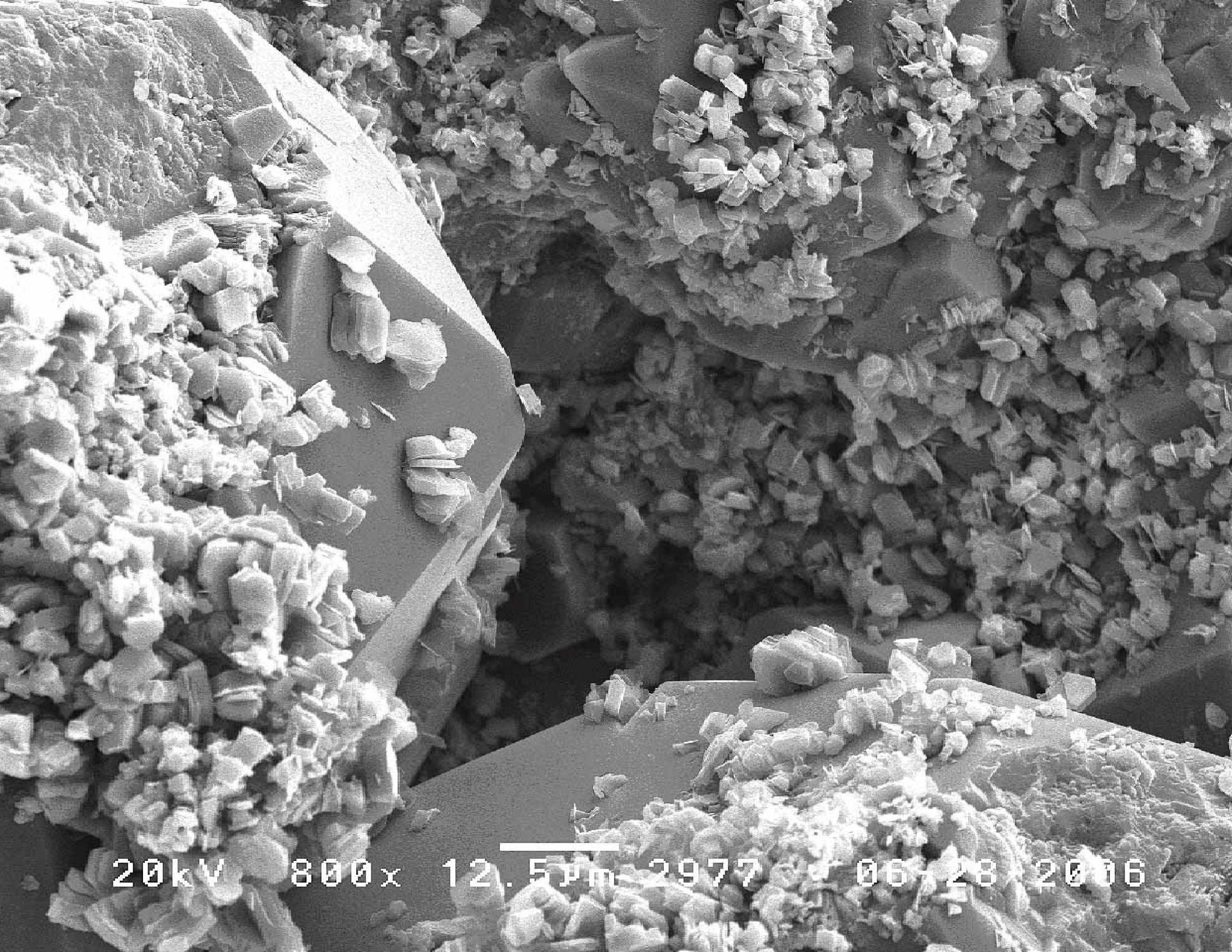
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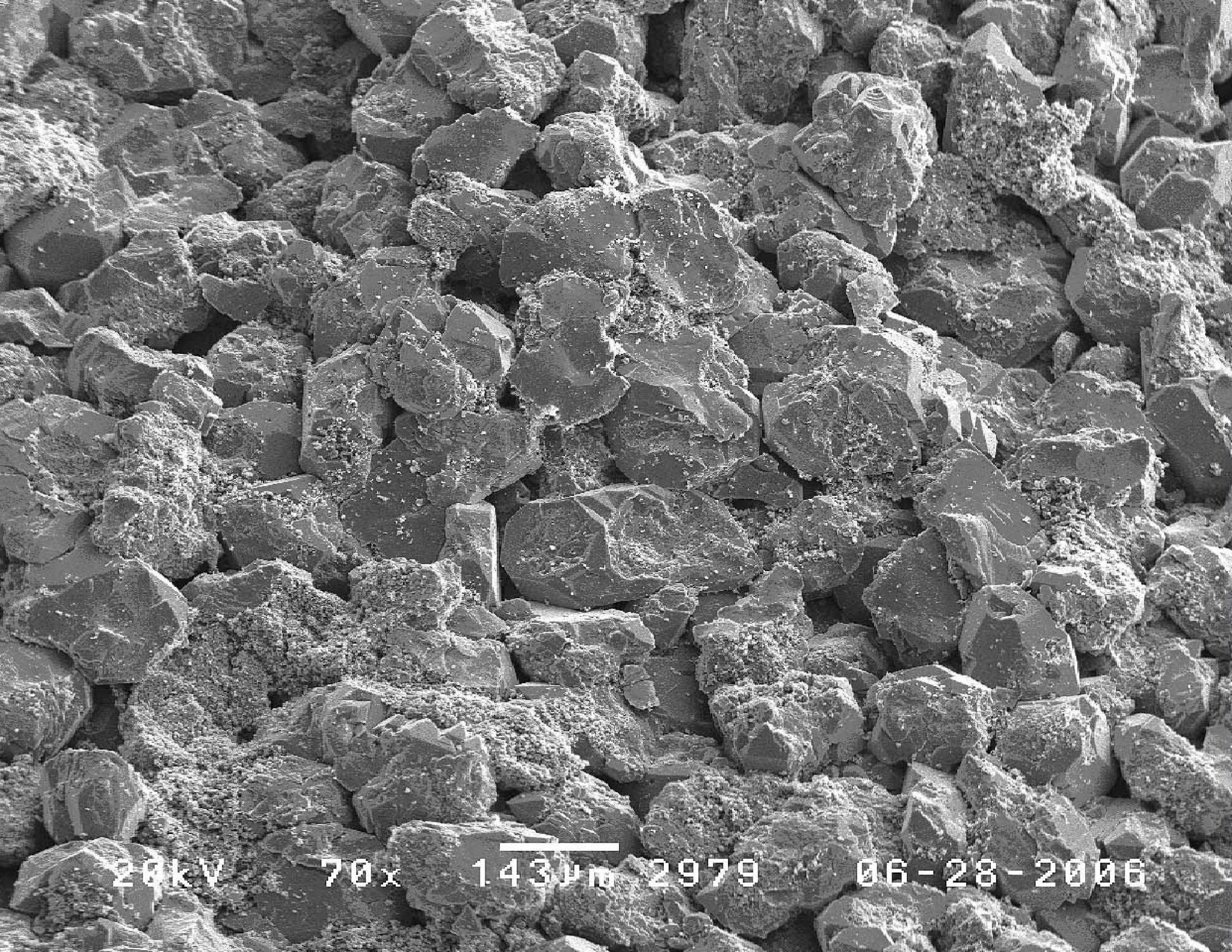
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