Appendix A

SEM Data for 24-Hour High-Volume Filtrate

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A high-volume water sample was extracted and filtered at 24 hours after the initiation of ICET Test #1. This appendix presents SEM images of the filtrate that was collected from the high-volume sample. As indicated by turbidity measurements, significant quantities of surrogate latent debris were still suspended at the time of extraction. In general, filtrates of small suspended matter exhibit the most homogeneous physical features of the various samples that have been examined because they represent aggregated masses of very fine particulates. This attribute is illustrated in the relatively smooth background fields of the following images that are broken only by occasional flakes, granules, and biological remains that were present in the surrogate debris. (Recall that common soil is a major constituent of the surrogate debris). Elemental compositions of latent debris are examined in Appendix D. These analyses were performed on December 7, 2004. No EDS spectra or compositions were taken at that time.

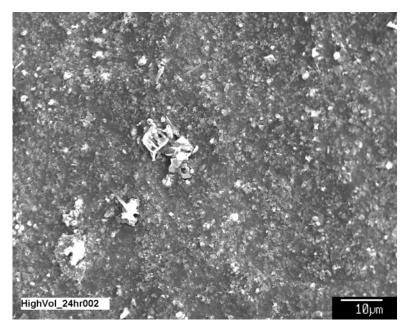


Figure A-1. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr002).

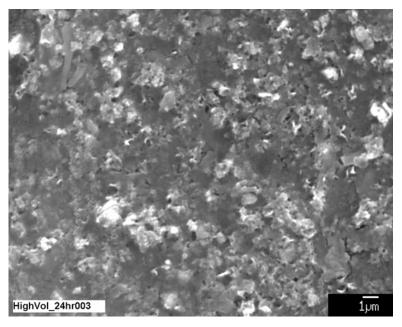


Figure A-2. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr003).

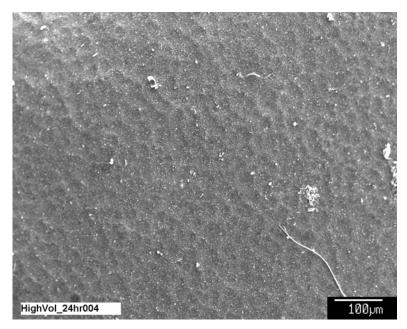


Figure A-3. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr004).

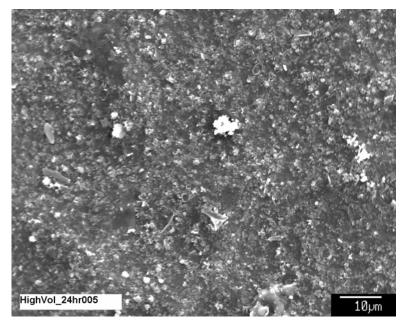


Figure A-4. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr005).

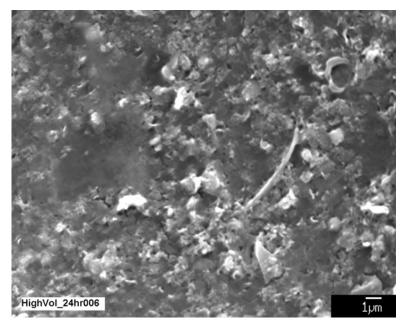


Figure A-5. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr006).

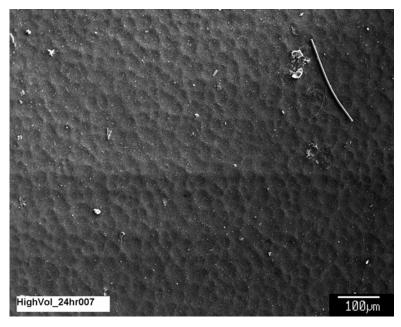
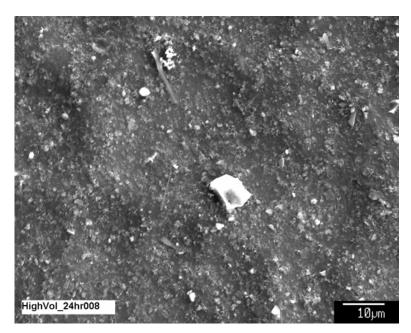


Figure A-6. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr007).



 $Figure A-7. \qquad Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr008).$

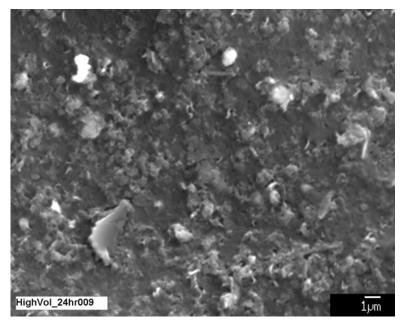


Figure A-8. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr009).

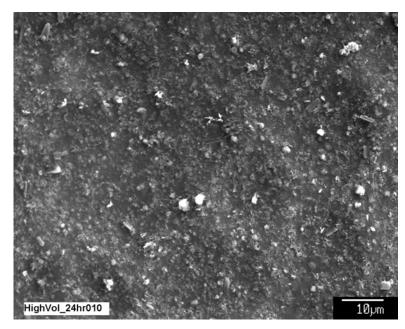
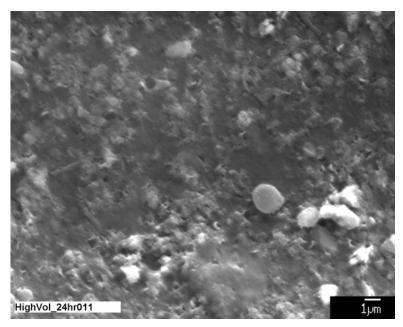
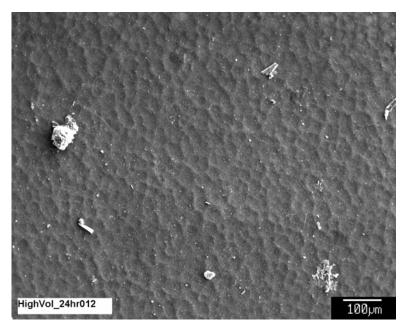


Figure A-9. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr010).



 $Figure\ A-10.\qquad Twenty-four-hour,\ high-volume-sample\ SEM\ image\ (HighVol_24hr011).$



 $Figure\ A-11. \qquad Twenty-four-hour, high-volume-sample\ SEM\ image\ (HighVol_24hr012).$

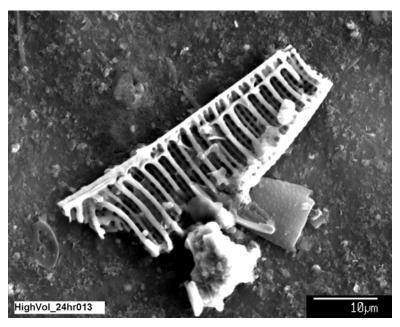


Figure A-12. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr013).

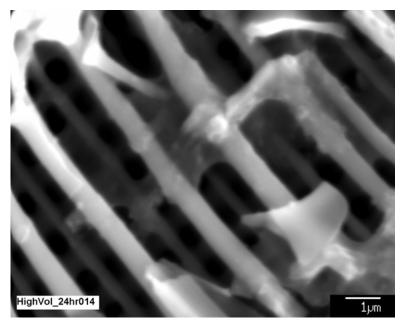


Figure A-13. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr014).

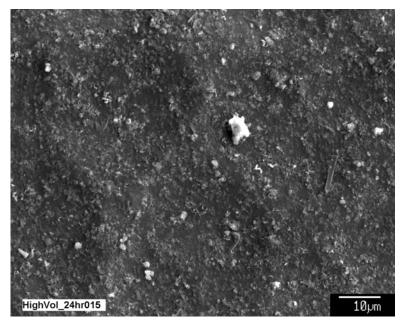


Figure A-14. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr015).

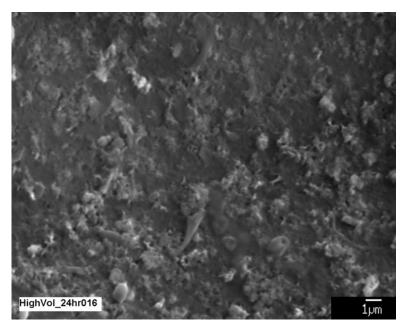


Figure A-15. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr016).

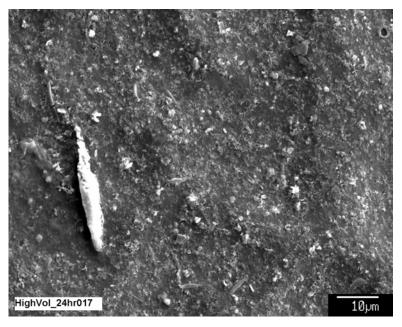


Figure A-16. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr017).

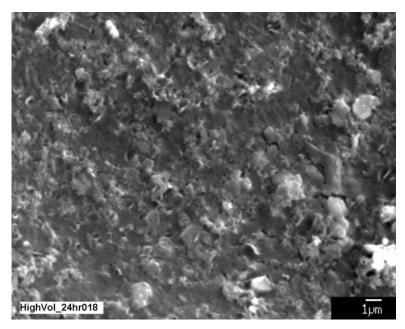


Figure A-17. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr018).

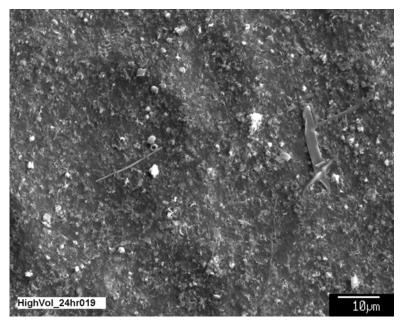


Figure A-18. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr019).

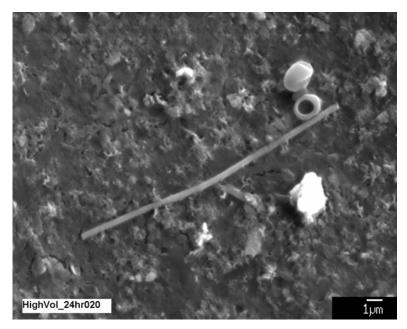


Figure A-19. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr020).

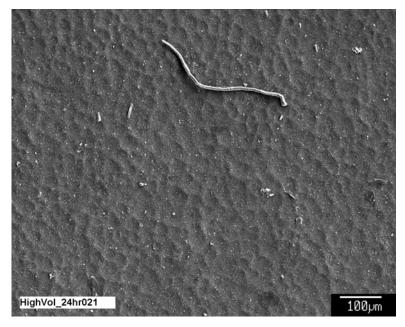


Figure A-20. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr021).

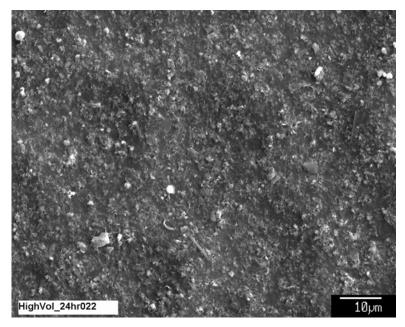


Figure A-21. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr022).

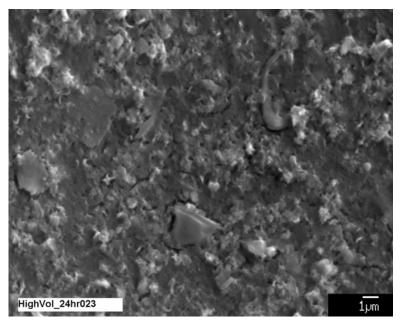


Figure A-22. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr023).

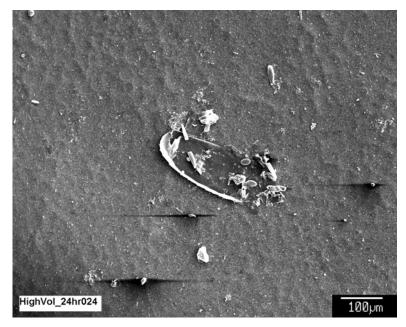


Figure A-23. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr024).

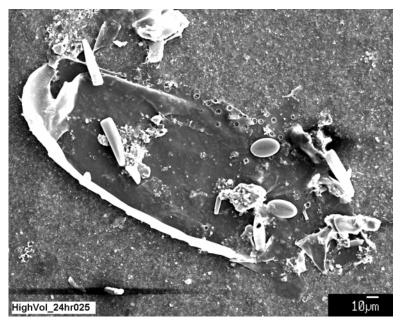


Figure A-24. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr025).

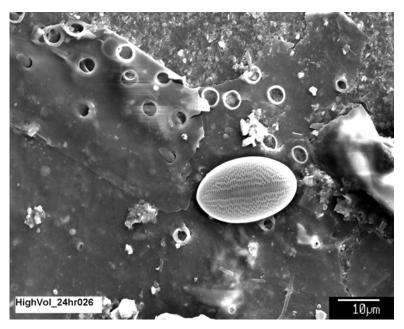


Figure A-25. Twenty-four-hour, high-volume-sample SEM image (HighVol_24hr026).