

## Appendix F1

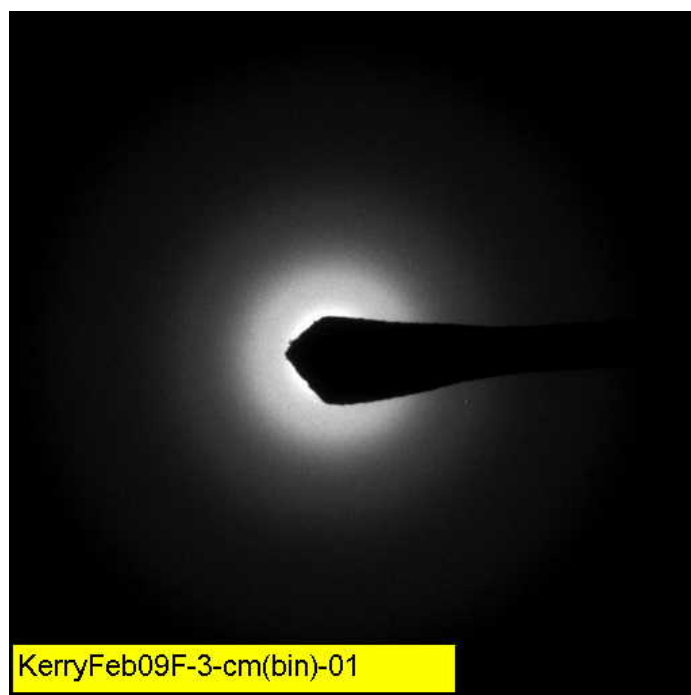
### TEM Data for Test-2 Day-4 Solution Samples

#### List of Figures

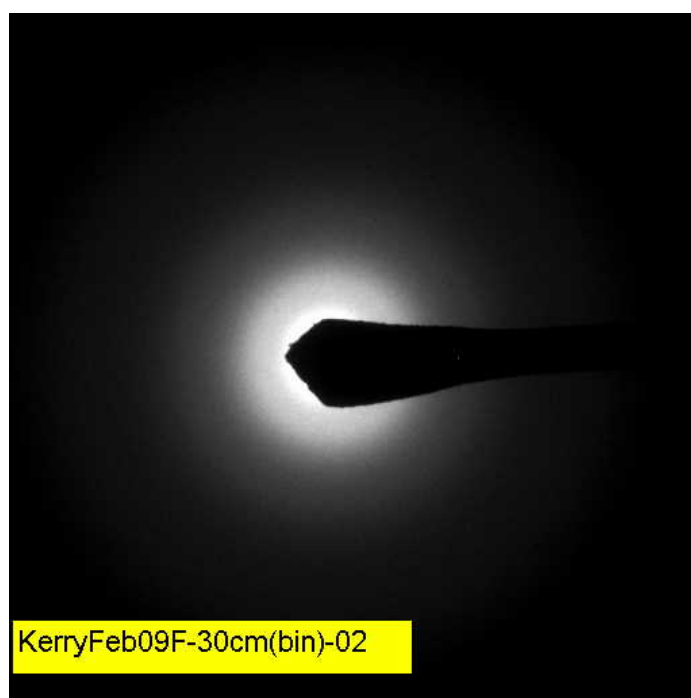
Figure F1-1. TEM image for a Test-2 Day-4 filtered sample solution (KerryFeb09F-3-cm(bin)-01). .....	F1-2
Figure F1-2. TEM image for a second Test-2 Day-4 filtered sample solution (KerryFeb09F-30-cm(bin)-02). .....	F1-2
Figure F1-3. Electron micrograph magnified 50,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-50k-01). .....	F1-3
Figure F1-4. Electron micrograph magnified 50,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-50k-02). .....	F1-3
Figure F1-5. Electron micrograph magnified 50,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-50k-03). .....	F1-4
Figure F1-6. Electron micrograph magnified 2,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-2k-01). .....	F1-4
Figure F1-7. Electron micrograph magnified 2,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-2k-02). .....	F1-5
Figure F1-8. Electron micrograph magnified 4,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-4k-01). .....	F1-5
Figure F1-9. Electron micrograph magnified 4,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-4k-02). .....	F1-6
Figure F1-10. Electron micrograph magnified 4,000 times for a third Test-2 Day-4 unfiltered sample location. (KerryFeb09-4k-03). .....	F1-6
Figure F1-11. Electron micrograph magnified 10,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-10k-01). .....	F1-7
Figure F1-12. Electron micrograph magnified 10,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-10k-02). .....	F1-7
Figure F1-13. Electron micrograph magnified 10,000 times for a third Test-2 Day-4 unfiltered sample location. (KerryFeb09-10k-03). .....	F1-8
Figure F1-14. TEM image for one Test-2 Day-4 unfiltered sample location (KerryFeb09-30cm(bin)-01). .....	F1-8

Figure F1-15. TEM image for a second Test-2 Day-4 unfiltered sample location (KerryFeb09-30cm(bin)-02).....	F1-9
Figure F1-16. TEM image for a third Test-2 Day-4 unfiltered sample location (KerryFeb09-30cm(bin)-03).....	F1-9
Figure F1-17. Electron micrograph magnified 50,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-50k-01).....	F1-10
Figure F1-18. Electron micrograph magnified 50,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-50k-02). ....	F1-10
Figure F1-19. Electron micrograph magnified 50,000 times for a third Test-2 Day-4 unfiltered sample location. (KerryFeb09-50k-03). ....	F1-11
Figure F1-20. Electron micrograph magnified 2,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-2k-01).....	F1-11
Figure F1-21. Electron micrograph magnified 2,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-2k-02).....	F1-12
Figure F1-22. Electron micrograph magnified 2,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-2k-03).....	F1-12
Figure F1-23. Electron micrograph magnified 4,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-4k-01).....	F1-13
Figure F1-24. Electron micrograph magnified 4,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-4k-02).....	F1-13
Figure F1-25. Electron micrograph magnified 4,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-4k-03).....	F1-14
Figure F1-26. Electron micrograph magnified 10,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-10k-01).....	F1-14
Figure F1-27. Electron micrograph magnified 10,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-10k-02).....	F1-15
Figure F1-28. Electron micrograph magnified 10,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-10k-03).....	F1-15

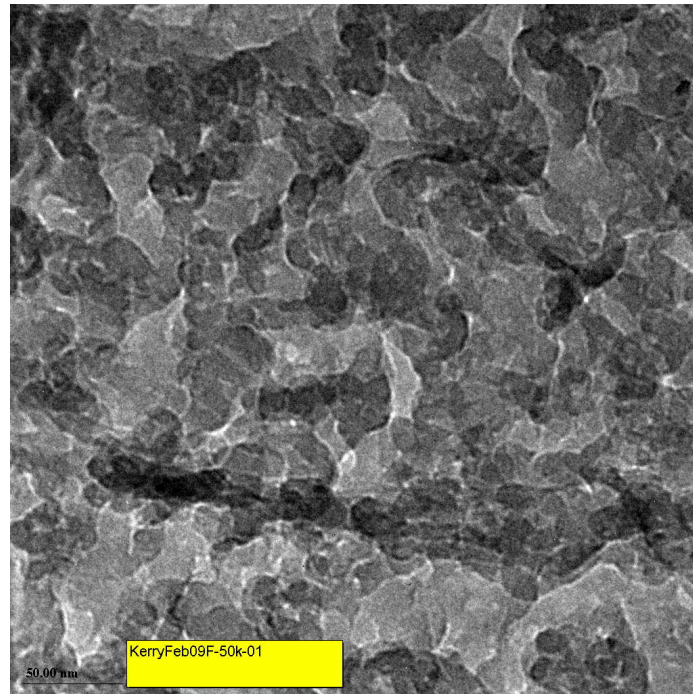
This appendix presents TEM images and diffraction patterns for Test-2 Day-4 (February 9, 2005) filtered and unfiltered solution samples. The filtered samples were obtained by passing solution through a 0.7- $\mu\text{m}$  fiberglass filter at 60°C. The unfiltered solution samples were extracted from the tank directly. A drop of each solution sample was placed onto a copper grid of 200 mesh. After being dried in air at room temperature, the sample was ready for TEM analysis. The TEM results and diffraction patterns were obtained on February 9, 2005. Diffraction patterns show whether the sample was amorphous or crystalline. When a sample gives clear and significant diffraction patterns, it is crystalline. Otherwise, it is amorphous. The results show that all of the Test-2 Day-4 samples were amorphous.



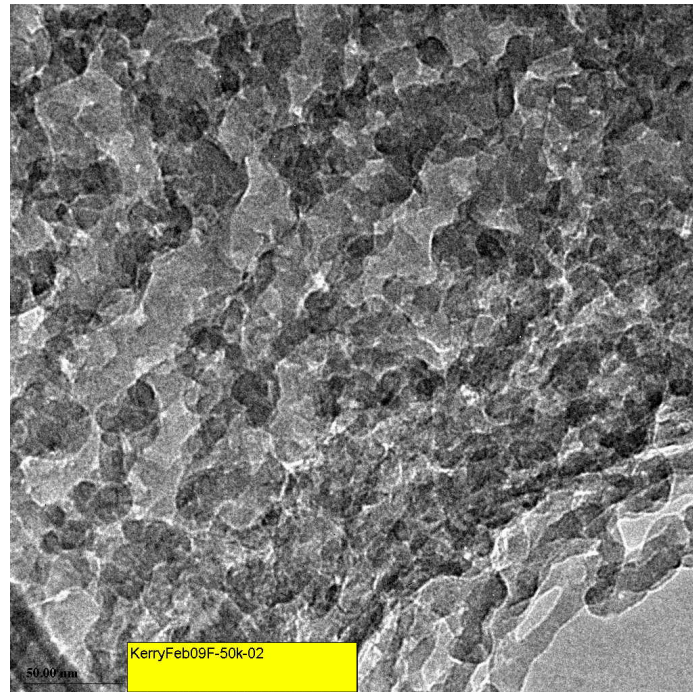
**Figure F1-1. TEM image for a Test-2 Day-4 filtered sample solution (KerryFeb09F-3-cm(bin)-01).**



**Figure F1-2. TEM image for a second Test-2 Day-4 filtered sample solution (KerryFeb09F-30-cm(bin)-02).**

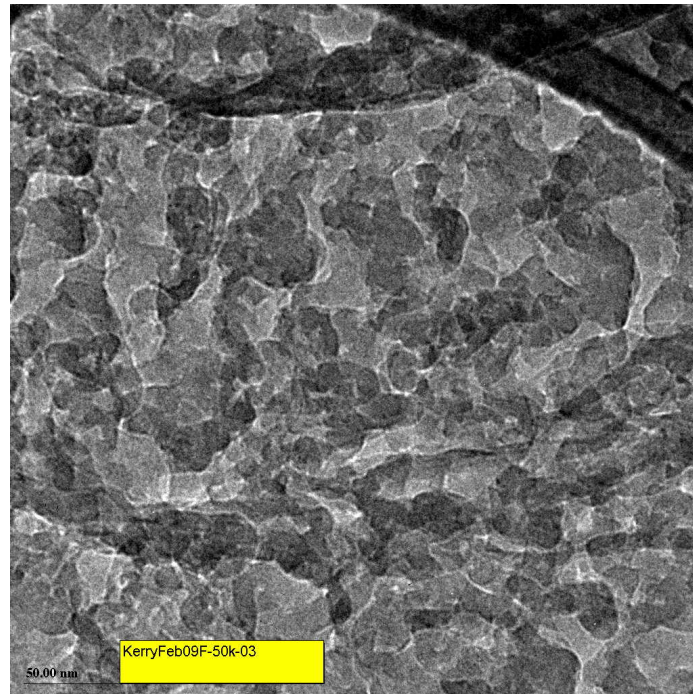


**Figure F1-3. Electron micrograph magnified 50,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-50k-01).**

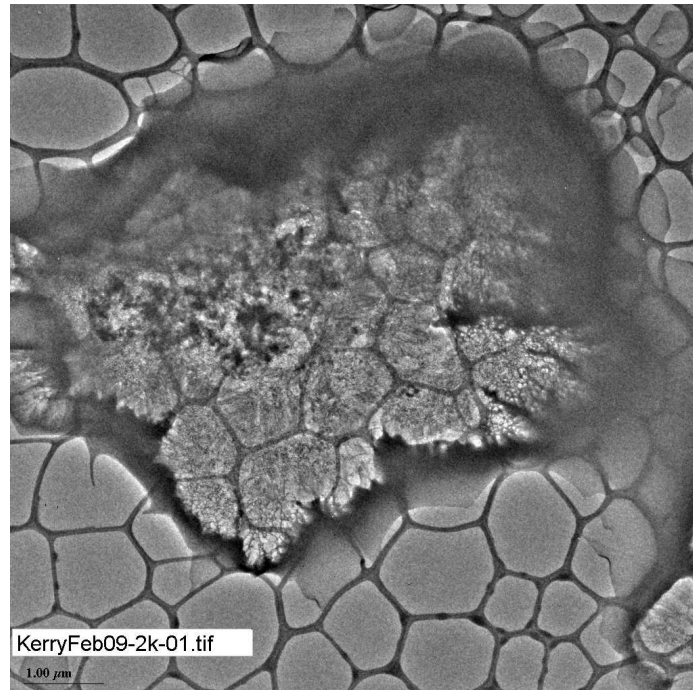


**Figure F1-4. Electron micrograph magnified 50,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-50k-02).**

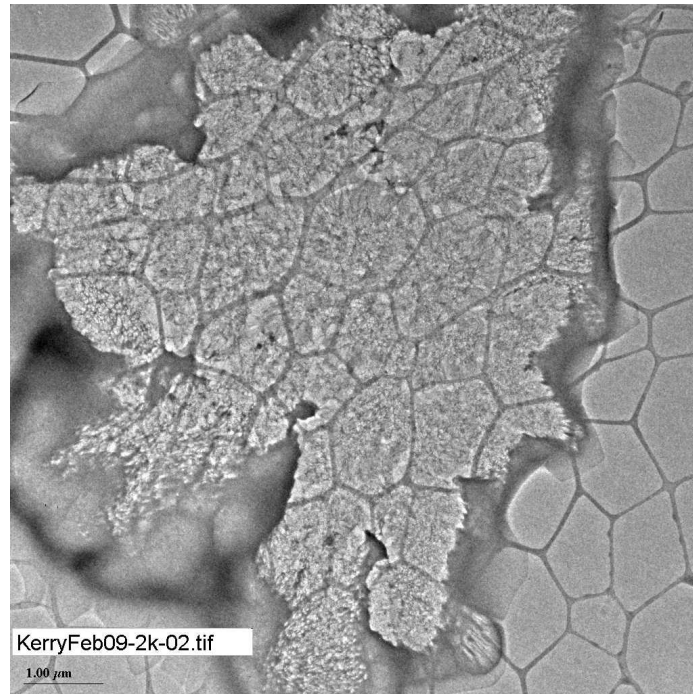




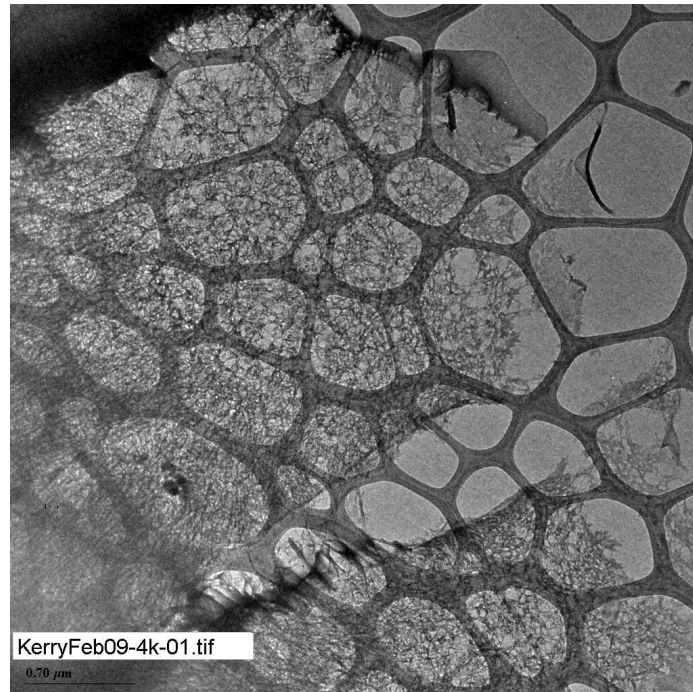
**Figure F1-5. Electron micrograph magnified 50,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-50k-03).**



**Figure F1-6. Electron micrograph magnified 2,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-2k-01).**

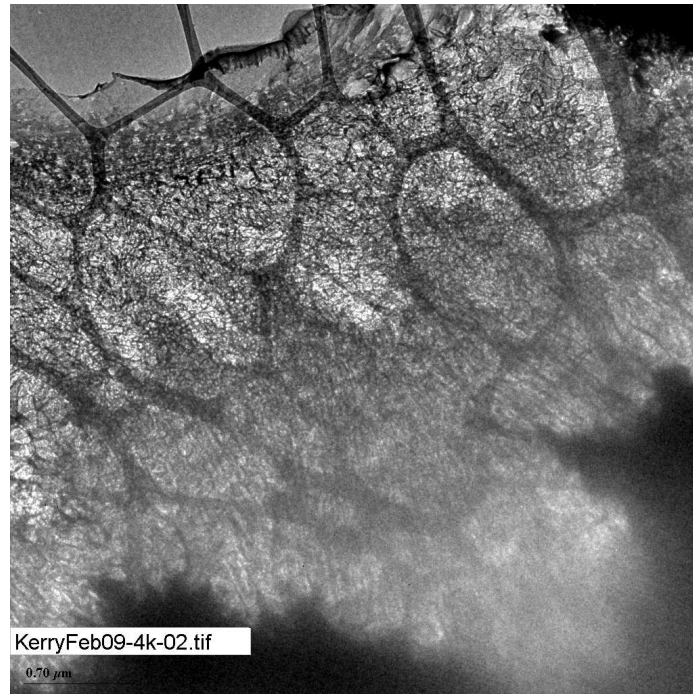


**Figure F1-7. Electron micrograph magnified 2,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-2k-02).**

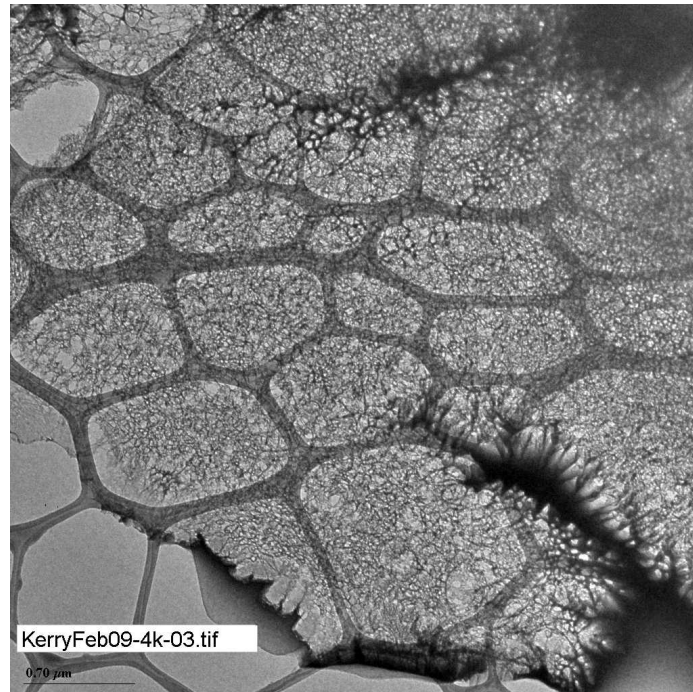


**Figure F1-8. Electron micrograph magnified 4,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-4k-01).**



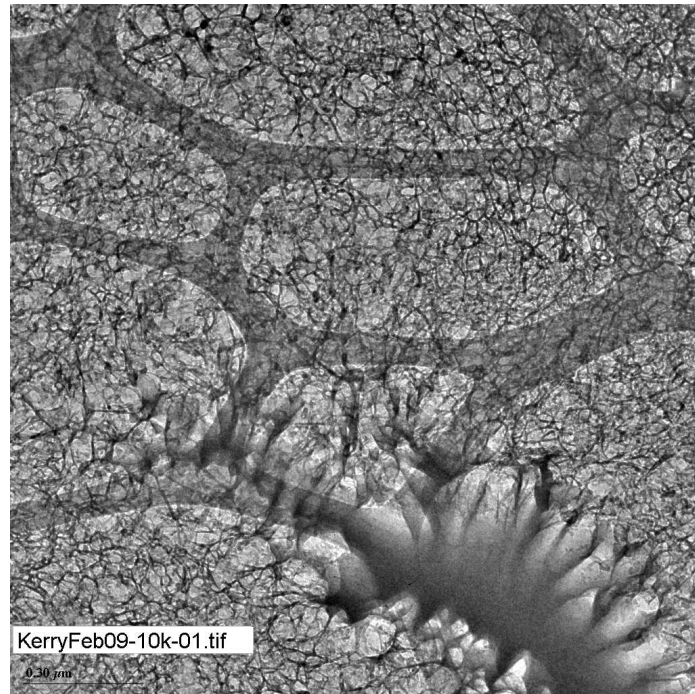


**Figure F1-9. Electron micrograph magnified 4,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-4k-02).**

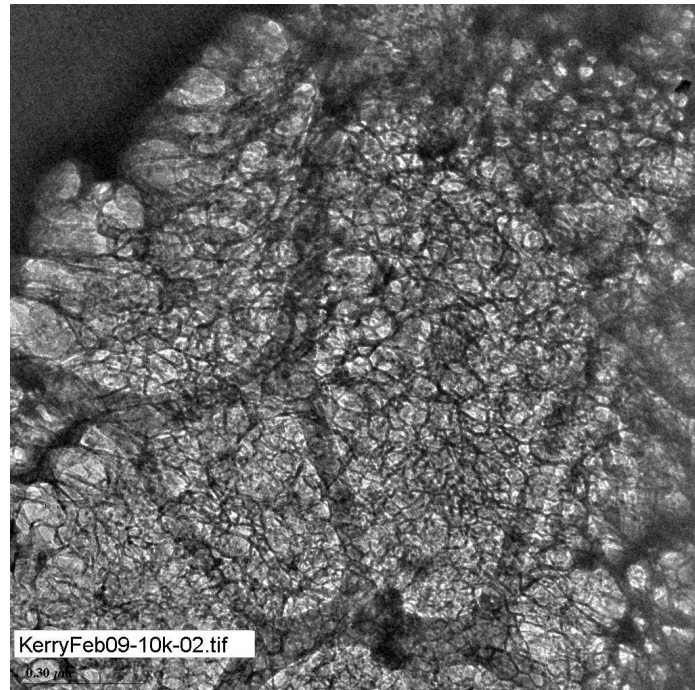


**Figure F1-10. Electron micrograph magnified 4,000 times for a third Test-2 Day-4 unfiltered sample location. (KerryFeb09-4k-03).**

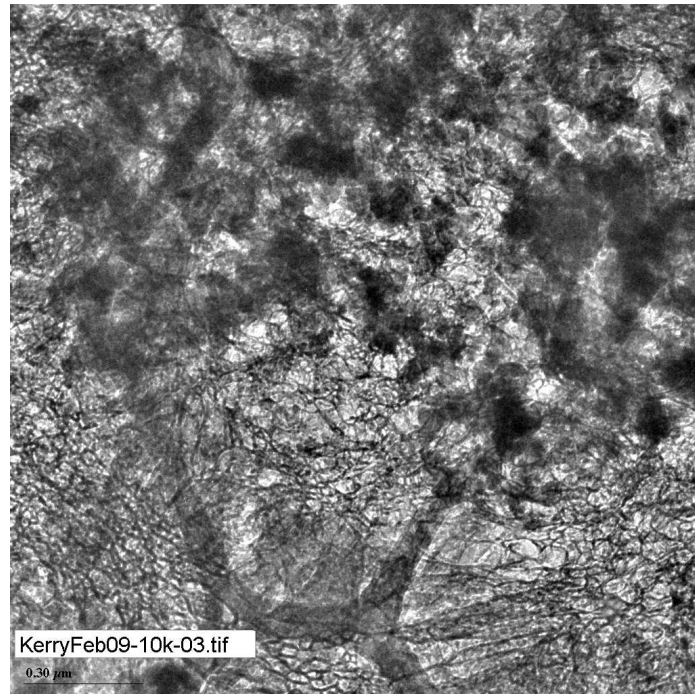




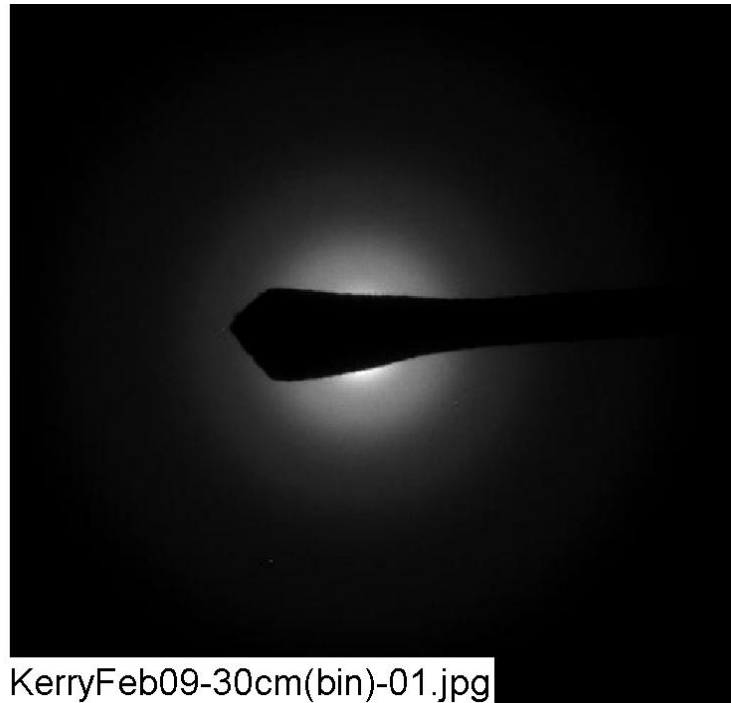
**Figure F1-11. Electron micrograph magnified 10,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-10k-01).**



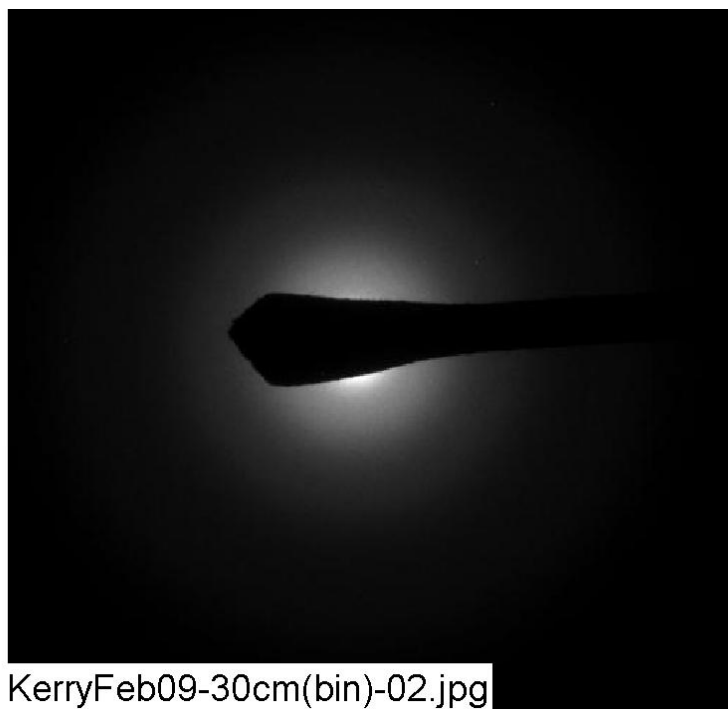
**Figure F1-12. Electron micrograph magnified 10,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-10k-02).**



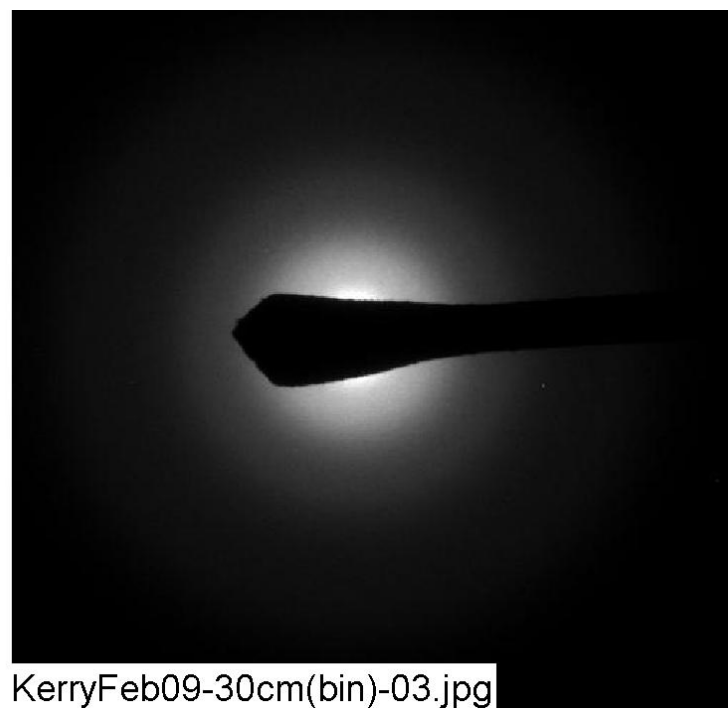
**Figure F1-13. Electron micrograph magnified 10,000 times for a third Test-2 Day-4 unfiltered sample location. (KerryFeb09-10k-03).**



**Figure F1-14. TEM image for one Test-2 Day-4 unfiltered sample location (KerryFeb09-30cm(bin)-01).**

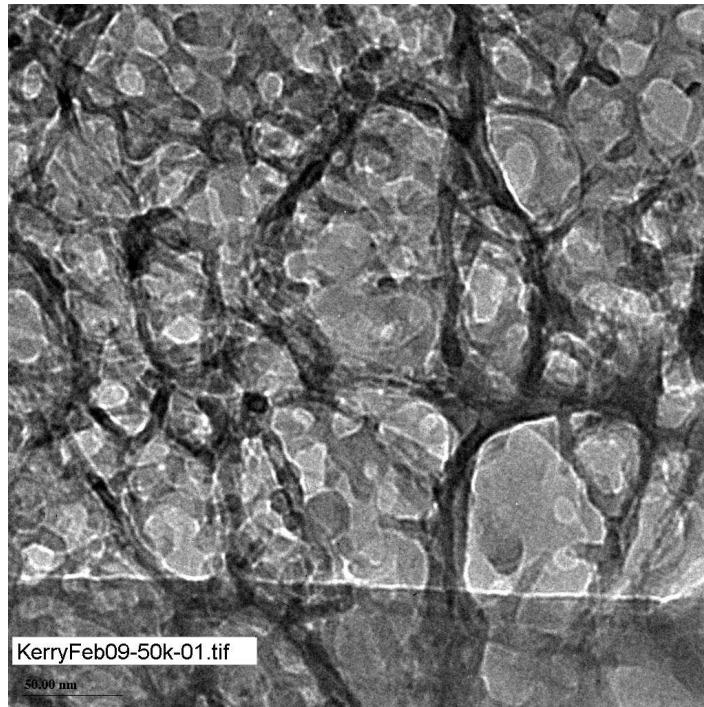


**Figure F1-15. TEM image for a second Test-2 Day-4 unfiltered sample location (KerryFeb09-30cm(bin)-02).**

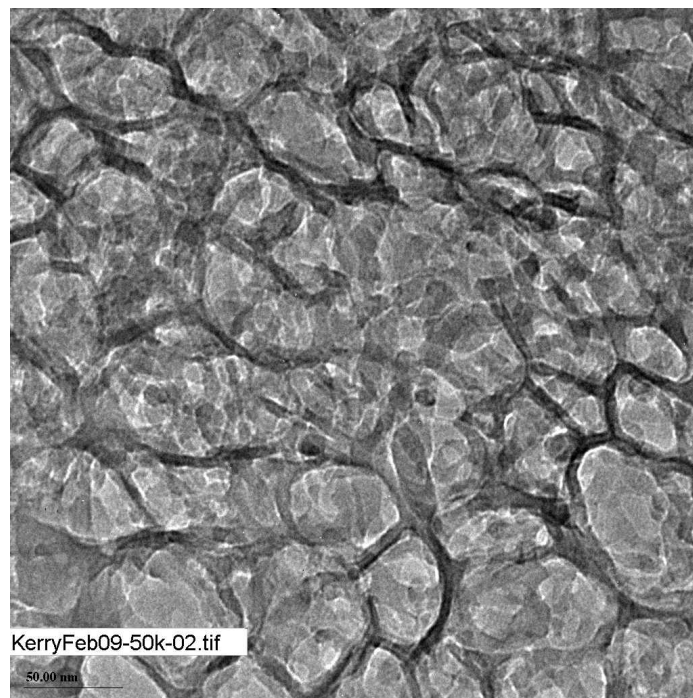


**Figure F1-16. TEM image for a third Test-2 Day-4 unfiltered sample location (KerryFeb09-30cm(bin)-03).**



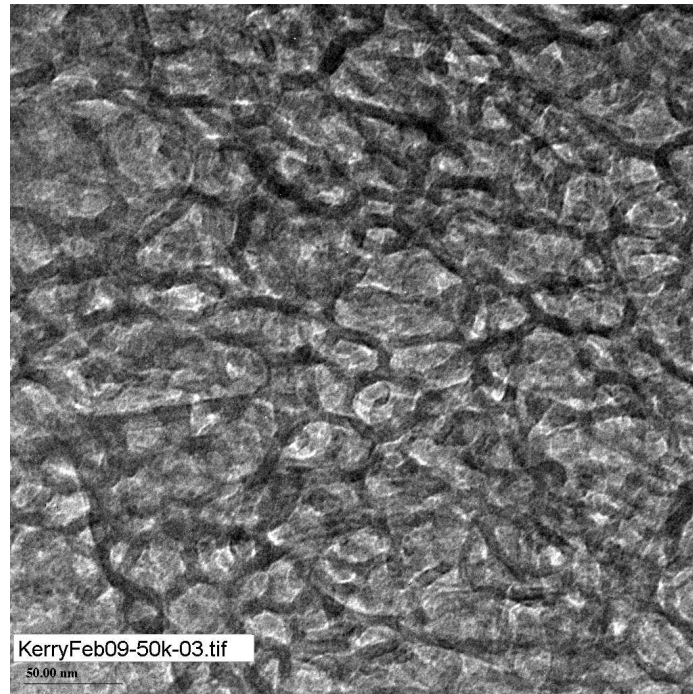


**Figure F1-17. Electron micrograph magnified 50,000 times for one Test-2 Day-4 unfiltered sample location. (KerryFeb09-50k-01).**

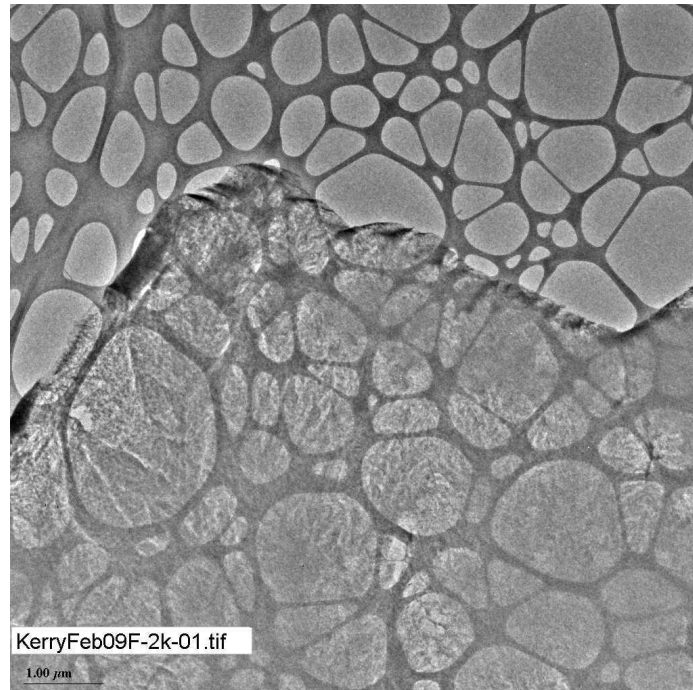


**Figure F1-18. Electron micrograph magnified 50,000 times for a second Test-2 Day-4 unfiltered sample location. (KerryFeb09-50k-02).**

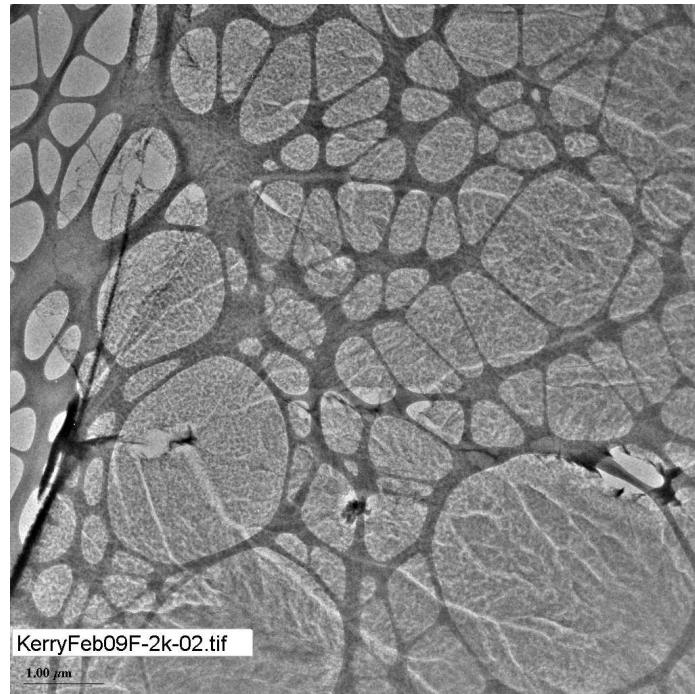




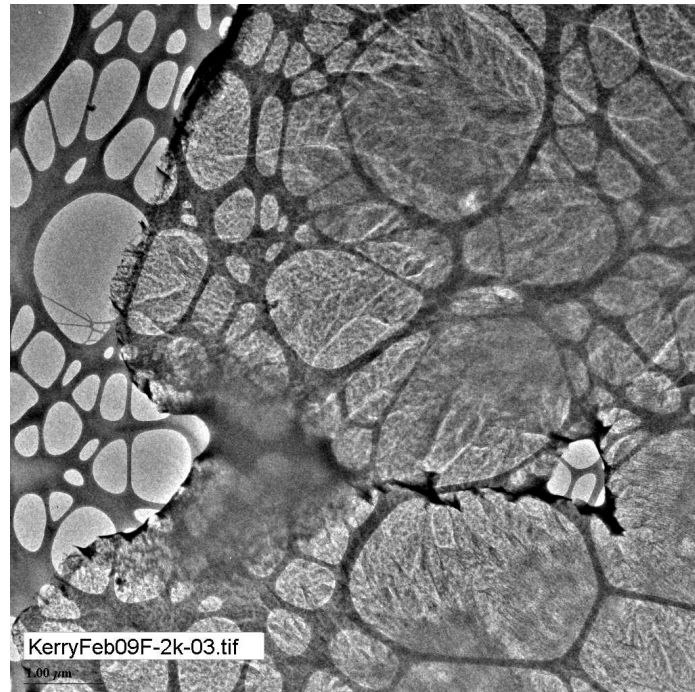
**Figure F1-19. Electron micrograph magnified 50,000 times for a third Test-2 Day-4 unfiltered sample location. (KerryFeb09-50k-03).**



**Figure F1-20. Electron micrograph magnified 2,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-2k-01).**

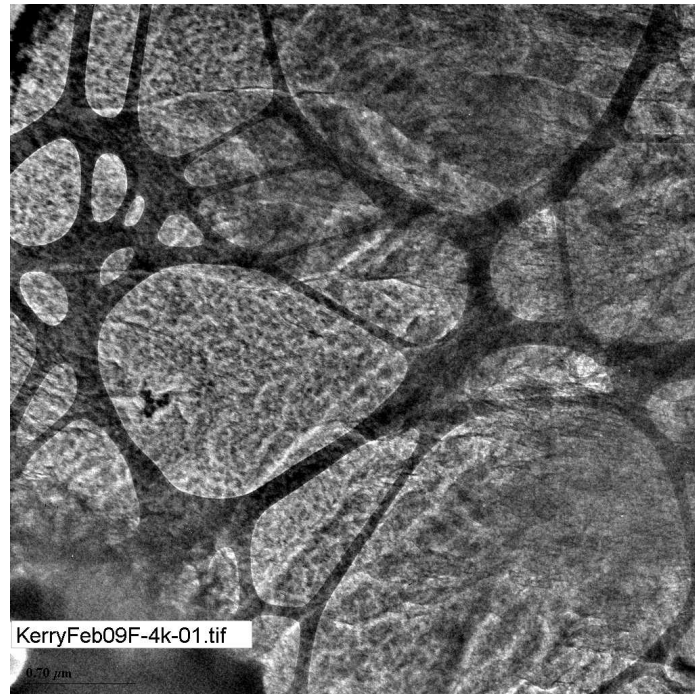


**Figure F1-21. Electron micrograph magnified 2,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-2k-02).**



**Figure F1-22. Electron micrograph magnified 2,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-2k-03).**

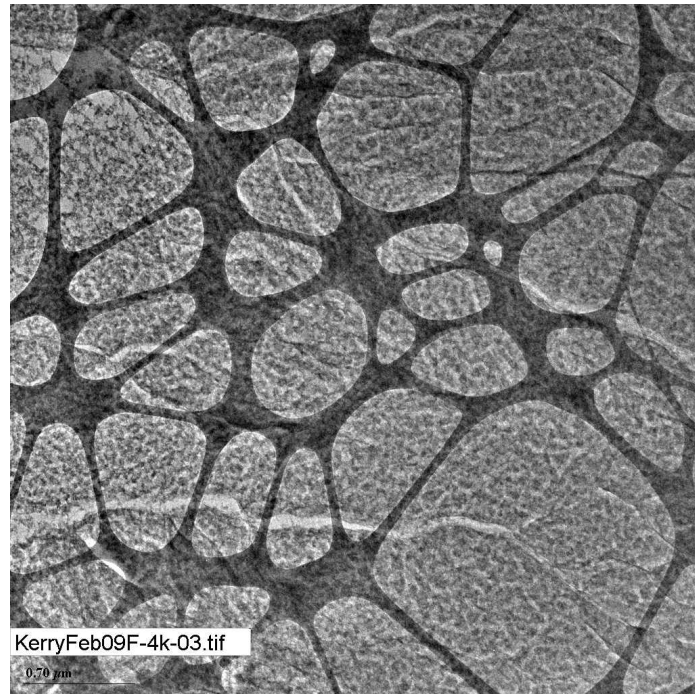




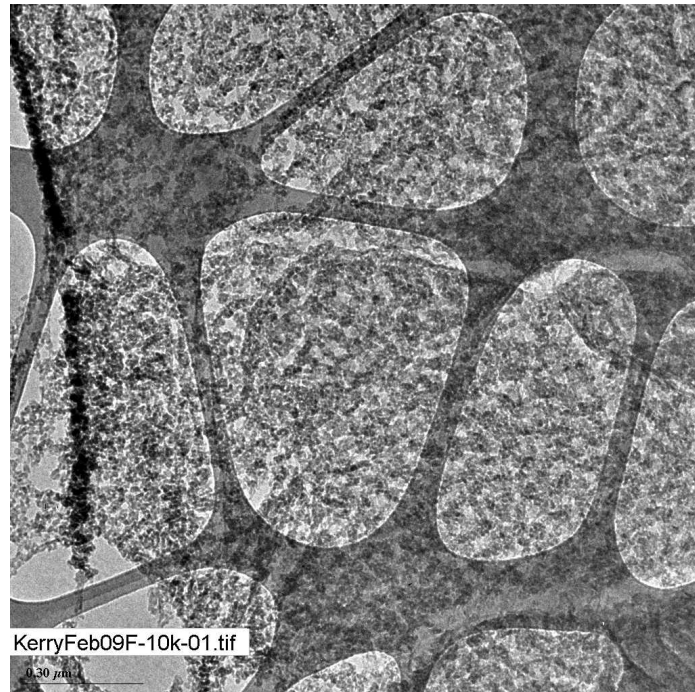
**Figure F1-23. Electron micrograph magnified 4,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-4k-01).**



**Figure F1-24. Electron micrograph magnified 4,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-4k-02).**

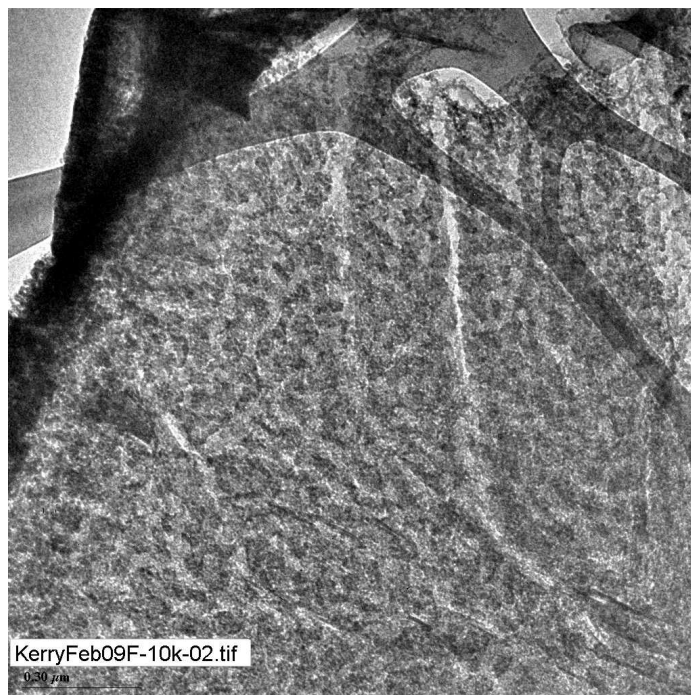


**Figure F1-25. Electron micrograph magnified 4,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-4k-03).**

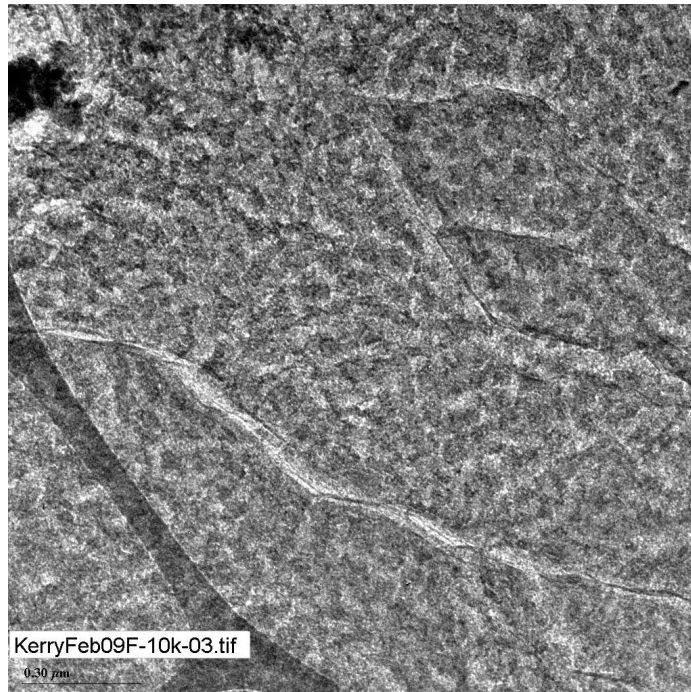


**Figure F1-26. Electron micrograph magnified 10,000 times for one Test-2 Day-4 filtered sample location. (KerryFeb09F-10k-01).**





**Figure F1-27. Electron micrograph magnified 10,000 times for a second Test-2 Day-4 filtered sample location. (KerryFeb09F-10k-02).**



**Figure F1-28. Electron micrograph magnified 10,000 times for a third Test-2 Day-4 filtered sample location. (KerryFeb09F-10k-03).**