

## Appendix C2

# ESEM/EDS Data for Test #4 Day-30 Fiberglass Inserted in Nylon Mesh in Low-Flow Zones

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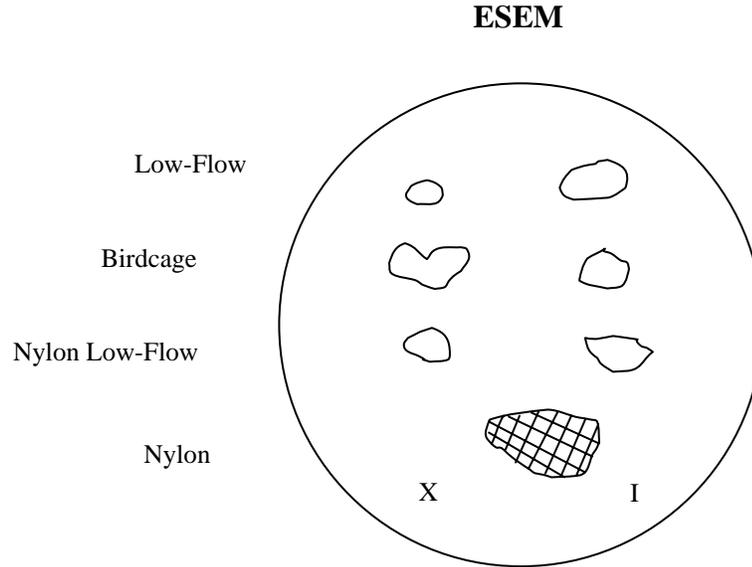
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This appendix presents the ESEM results on fiberglass samples inserted in a nylon mesh submerged in a low-flow zone in the tank. The purpose of using a nylon mesh is to determine if the mesh material (i.e., stainless steel or nylon) affects the deposits on fiberglass samples. The fiberglass samples were extracted on the date Test #4 was shut down (June 23, 2005). Both exterior and interior locations of the fiberglass samples were examined. ESEM was employed to analyze the wet fiberglass samples without any coating under a low vacuum condition (i.e., 80 Pa), to minimize the modification of the fiberglass samples through drying process. The results of Test #4 Day-30 low-flow fiberglass samples in a nylon mesh were obtained on June 24, 2005.

## Transcribed Laboratory Log

Laboratory session from June 24, 2005.

Test #4 Day-30 Low-Flow Fiberglass Inserted in Nylon Mesh.



### Nylon Mesh in Low-Flow area after 30 days (inserted on day 4).

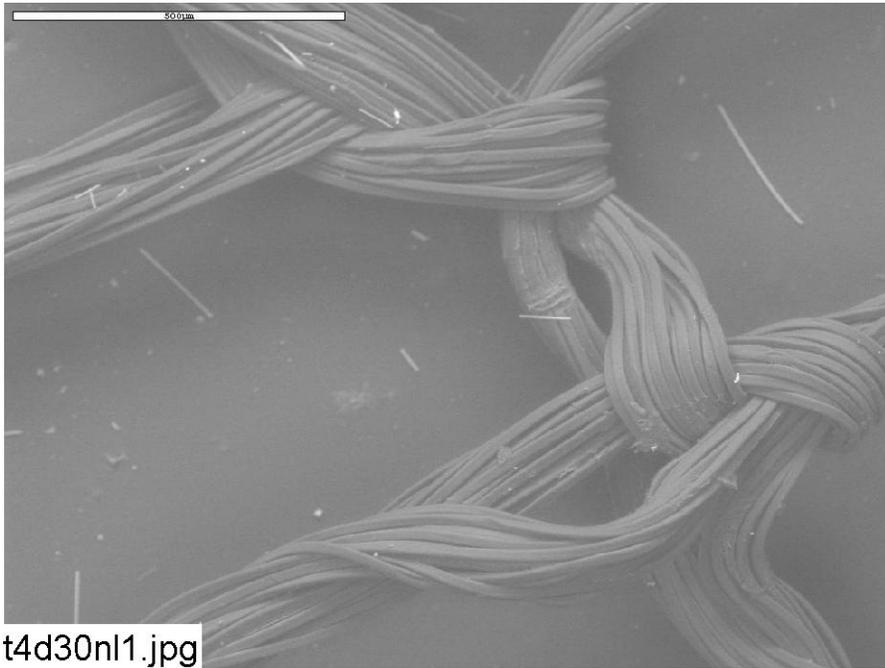
Image: t4d30nl1	100 ×	ESEM image	Figure C2-1
t4d30nl4	500 ×	ESEM annotated image	Figure C2-2
EDS: t4d30nl3		EDS on spot on mesh, t4d30nl4	Figure C2-3
Image: t4d30nl5	1000 ×	ESEM high magnification	Figure C2-4

### Exterior Low-Flow Fiberglass in Nylon Mesh

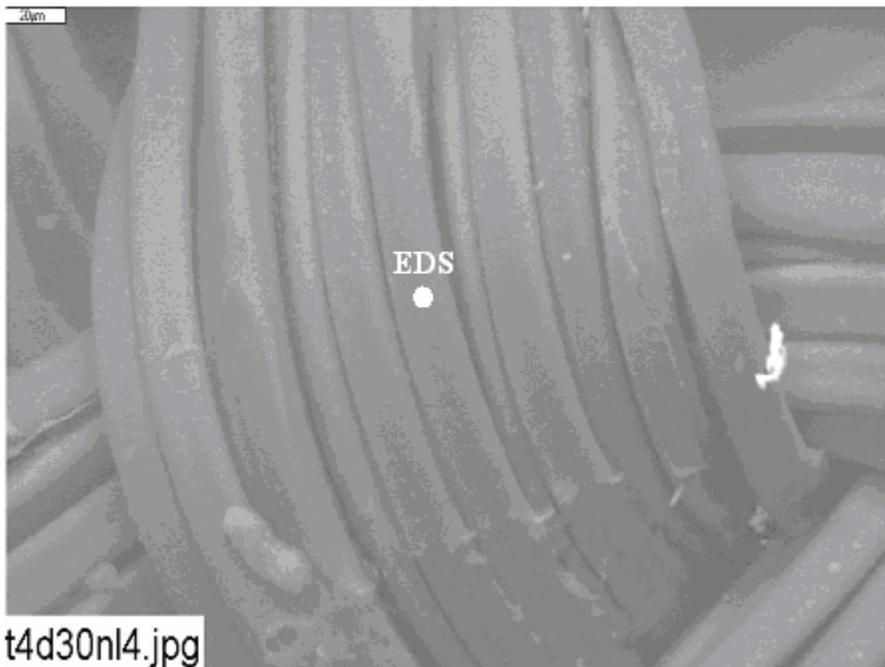
Image: t4NLEx01	100 ×	ESEM image	Figure C2-5
t4nlex03	100 ×	ESEM image higher magnification	Figure C2-6
t4nlex02	500 ×	ESEM image	Figure C2-7

### Interior Low-Flow Fiberglass in Nylon Mesh

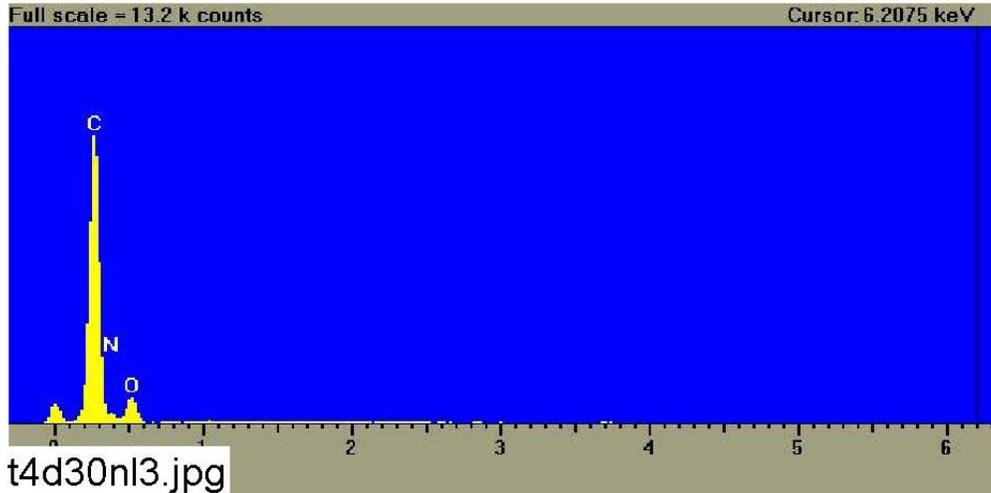
Image:	t4nlIn04	100 ×	ESEM image	Figure C2-8
	t4nlIn06	100 ×	ESEM image	Figure C2-9
	t4nlIn05	500 ×	ESEM image higher magnification	Figure C2-10



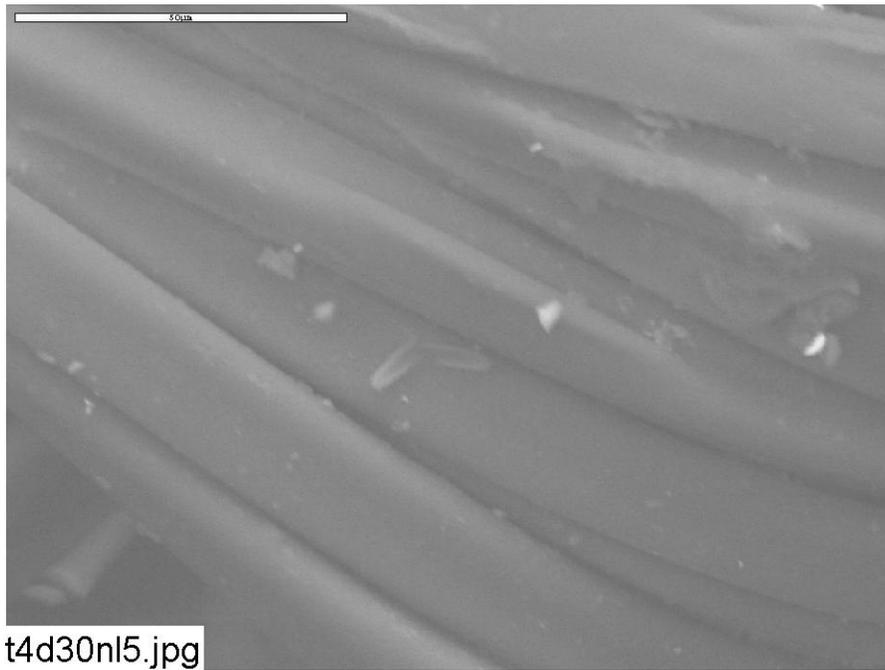
**Figure C2-1: Environmental SEM image magnified 100 times for a Test #4 Day-30 nylon mesh submerged in low-flow area (inserted on Day 4). (t4d30nl1.jpg)**



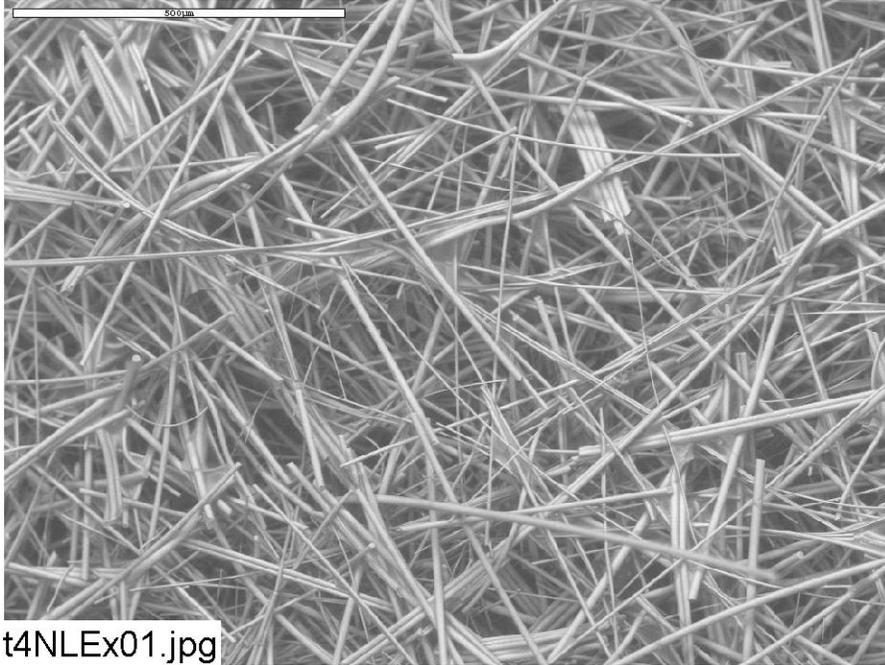
**Figure C2-2: Annotated environmental SEM image magnified 500 times for a Test #4 Day-30 nylon mesh submerged in low-flow area (inserted on Day 4). The EDS spot is shown in the picture. (t4d30nl4.jpg)**



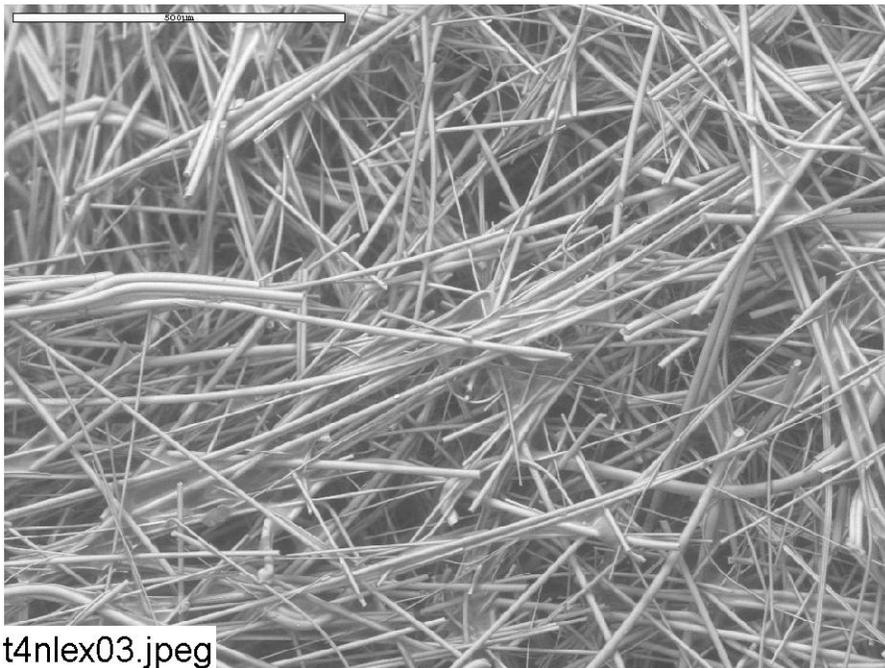
**Figure C2-3: EDS counting spectrum for the spot of nylon mesh shown in Figure C2-2. (t4d30nl3.jpg)**



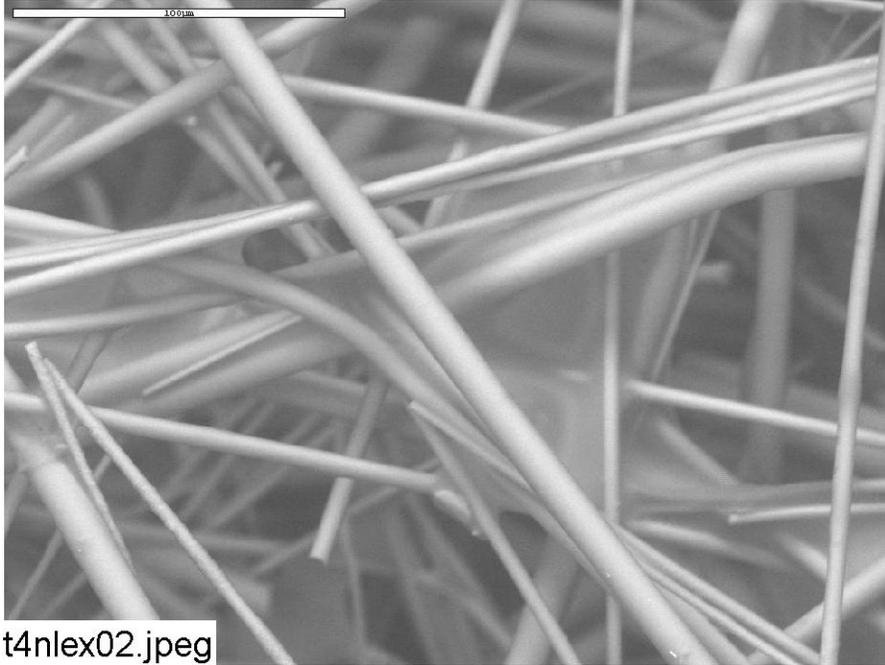
**Figure C2-4: Environmental SEM image magnified 1000 times for a Test #4 Day-30 nylon mesh submerged in low-flow area (inserted on Day 4). (t4d30nl5.jpg)**



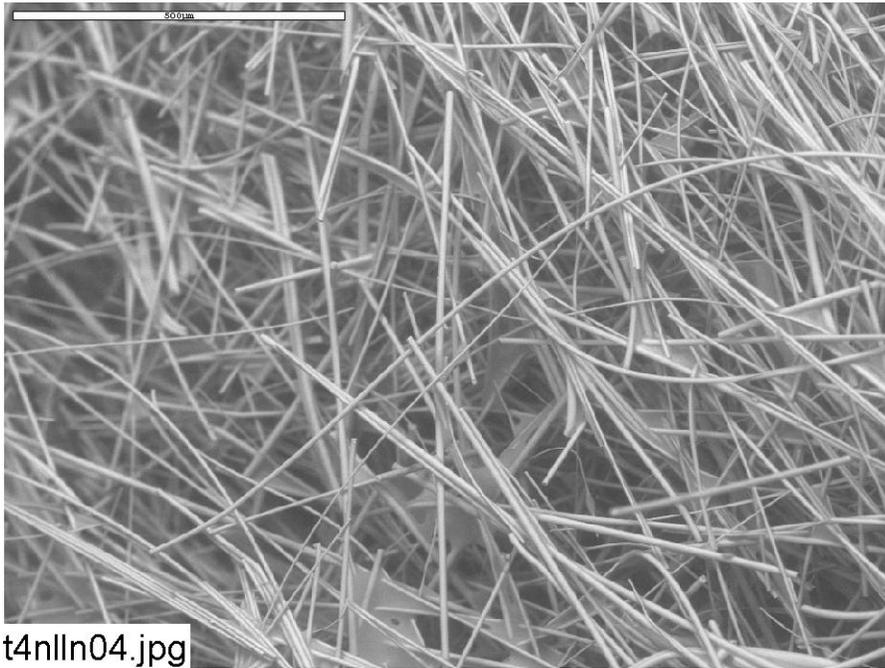
**Figure C2-5: Environmental SEM image magnified 100 times for a Test #4 Day-30 exterior low-flow fiberglass sample contained in a nylon mesh (inserted on Day 4). (t4NLEx01.jpg)**



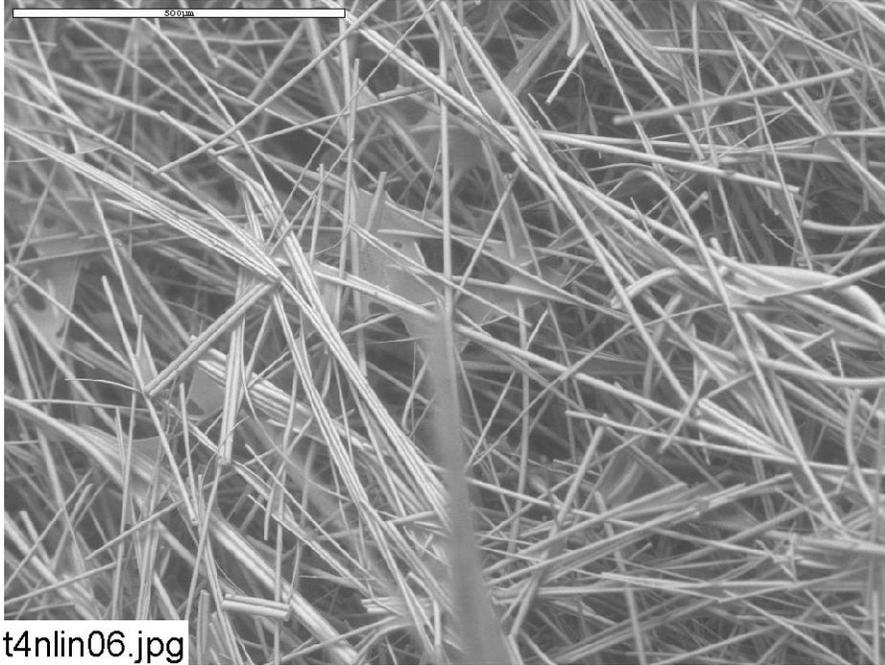
**Figure C2-6: Environmental SEM image magnified 100 times for a Test #4 Day-30 exterior low-flow fiberglass sample contained in a nylon mesh (inserted on Day 4). (t4nlex03.jpeg)**



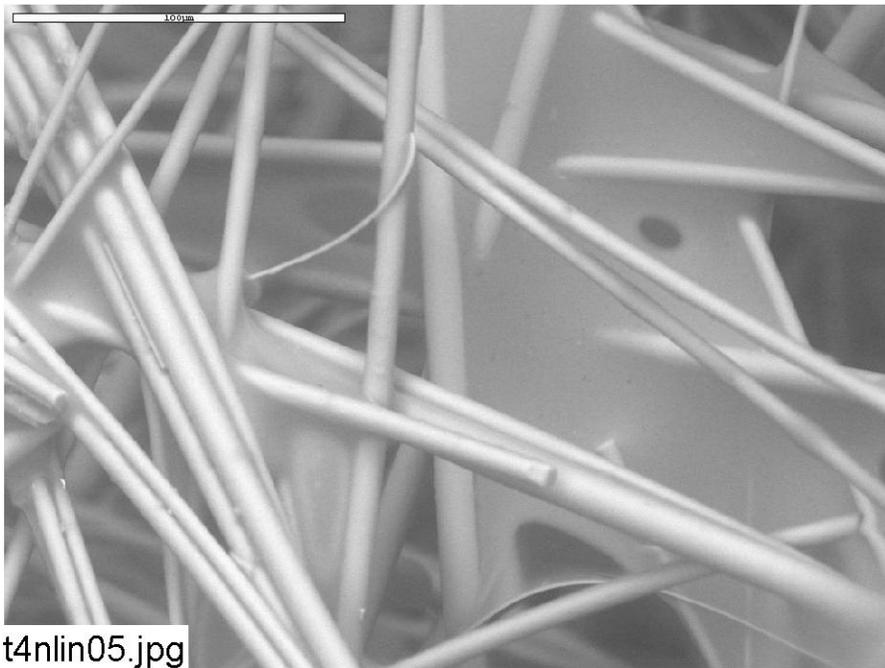
**Figure C2-7: Environmental SEM image magnified 500 times for a Test #4 Day-30 exterior low-flow fiberglass sample contained in a nylon mesh (inserted on Day 4). (t4nlex02.jpg)**



**Figure C2-8: Environmental SEM image magnified 100 times for a Test #4 Day-30 interior low-flow fiberglass sample contained in a nylon mesh (inserted on Day 4). (t4nlln04.jpg)**



**Figure C2-9: Environmental SEM image magnified 100 times for a Test #4 Day-30 interior low-flow fiberglass sample contained in a nylon mesh (inserted on Day 4). (t4nlin06.jpg)**



**Figure C2-10: Environmental SEM image magnified 500 times for a Test #4 Day-30 interior low-flow fiberglass sample contained in a nylon mesh (inserted on Day 4). (t4nlin05.jpg)**