

US EPA ARCHIVE DOCUMENT

## **Daily Report: Tracking the Plume of Dispersed Oil using Particle Size Distribution Measurements and Fluorescence Intensity Ratios**

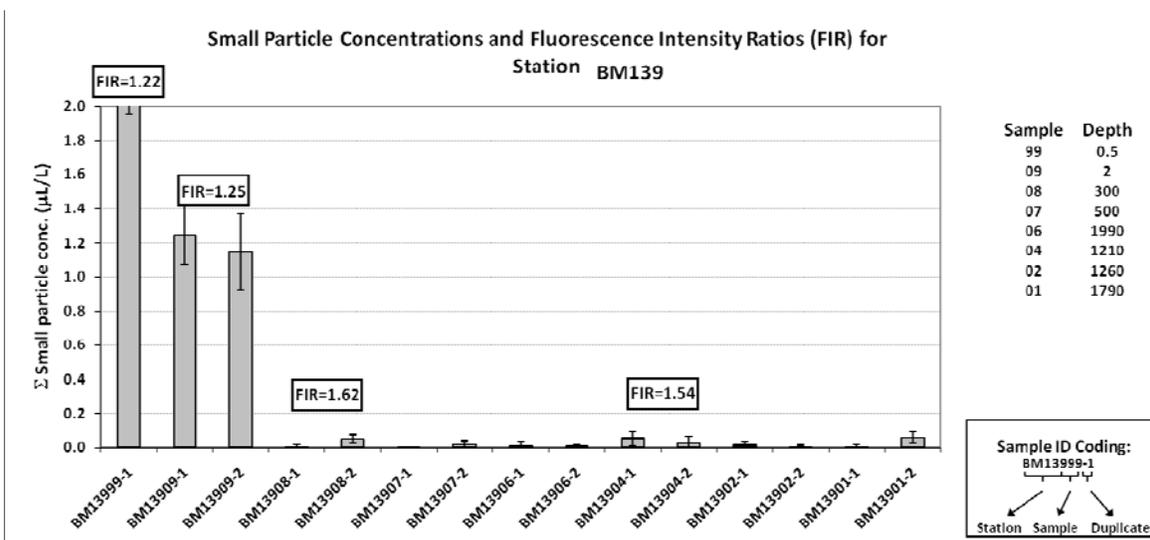
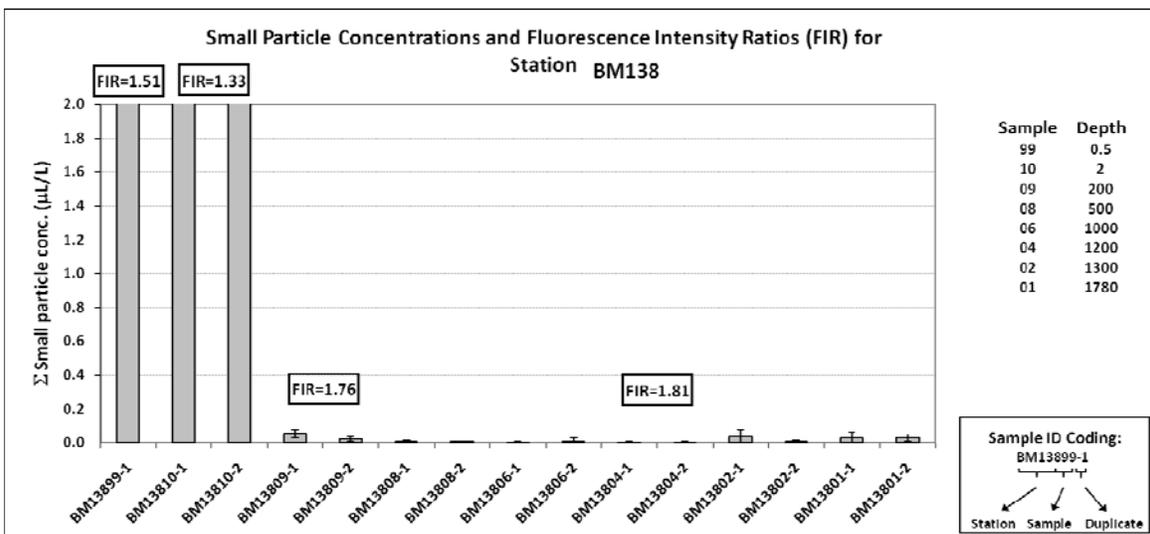
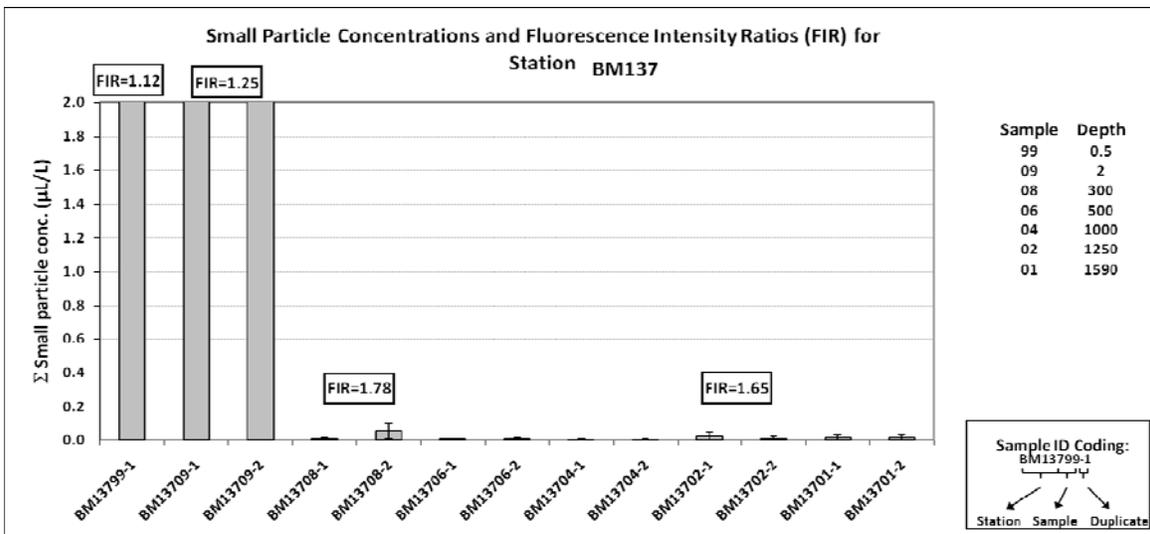
**July 19, 2010**

Water samples were collected at four stations for particle size distribution measurements using the LISST-100X particle counter. A total of 58 LISST samples were analyzed, including duplicates. Samples at depths of elevated fluorescence or other significance were selected from the CTD trace for fluorescence intensity ratio measurements and analyzed using a Quantech Life Sciences fixed wavelength fluorometer.

Station	Latitude	Longitude
BM137	28.7289	-88.2248
BM138	28.4098	-88.1420
BM139	28.6729	-88.2088
BM140	28.7062	-88.2275

All 4 stations sampled showed extremely high small particle concentrations in the surface (0.5m). Stations BM137 and BM138 also showed extremely high small particle concentrations at 2m, while BM139 and BM140 showed very high and high small particle concentrations respectively. All 4 stations showed low small particle concentrations below 2m.

All stations showed higher fluorescence intensity ratios at depth than were observed at the surface – generally speaking, these ratios were low at all depths.



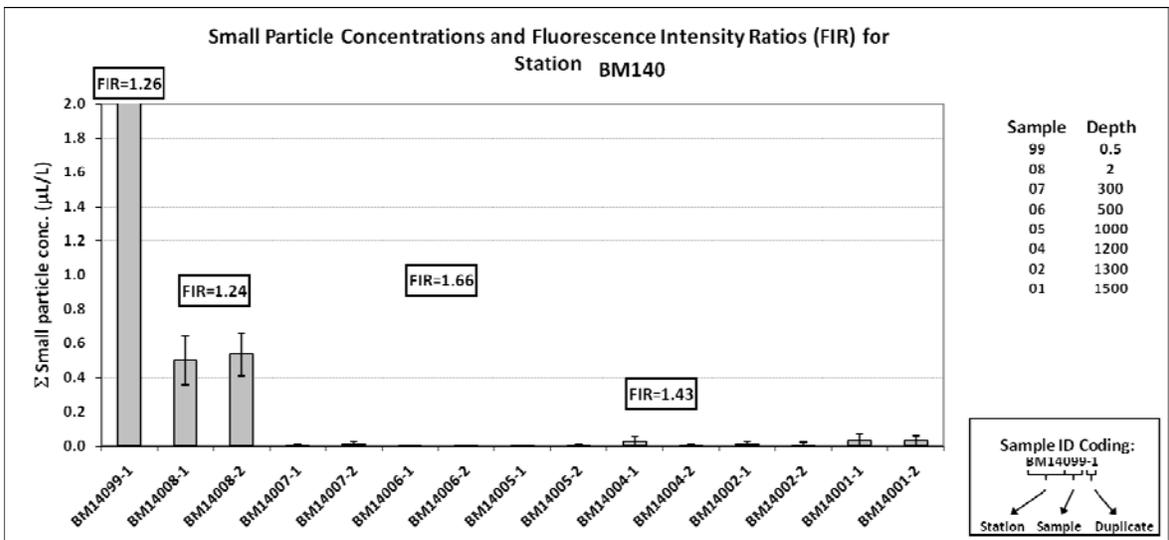


Figure 1: Average small particle concentrations and fluorescence intensity ratios as a function of depth for stations BM137 and BM140.