

US EPA ARCHIVE DOCUMENT

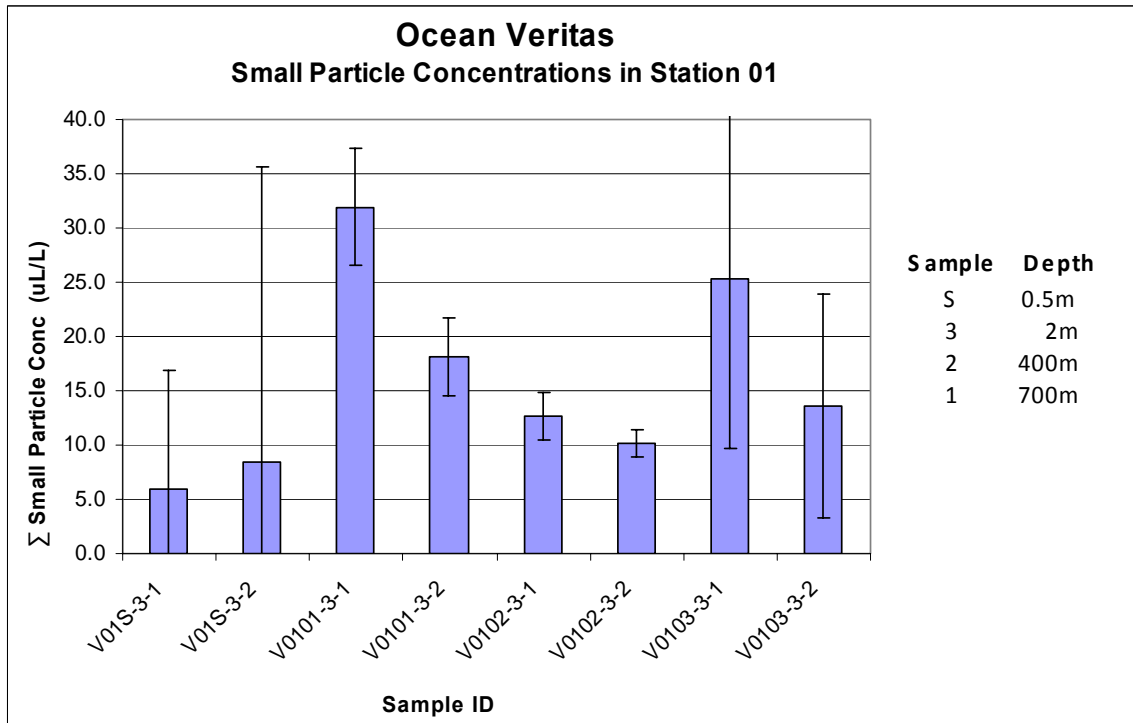
**Daily Report: Tracking the Plume of Dispersed Oil using Particle Size Distribution Measurements**

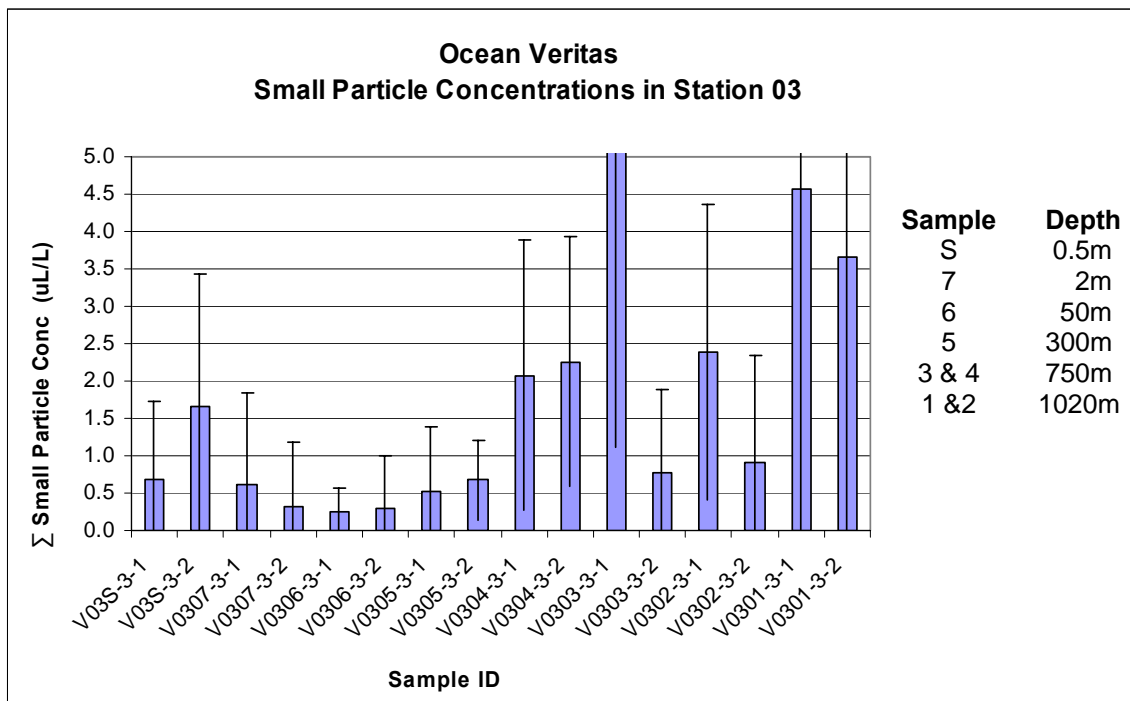
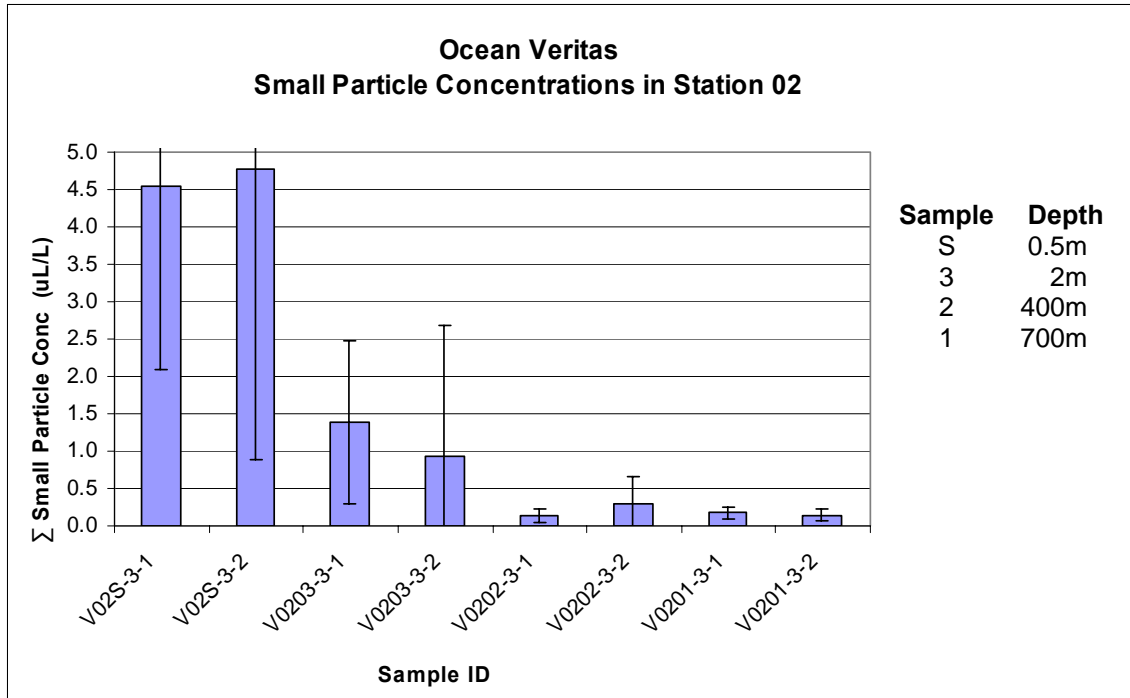
**May 27, 2010**

Water samples were collected at four stations for particle size distribution measurements using the LISST-100X particle counter. A total of 48 LISST samples were analyzed, including duplicates. The first two stations were from the same site. The first station was repeated due to a failed depth sounding resulting in the rosette coming in direct contact with the sea floor. Samples were also collected and stored for shore based fluorescence intensity ratio measurements.

Figure 1 presents the small droplet ( $\Sigma$  2.5 - 60 $\mu$ m) particle size data for stations V01 through V04. Stations V01 & V02 were located at Lat 28°47'50.27682"N, Long 88°45'31.3396"W, while station V03 was Lat 28°39'57.68396"N, Long 88°45'24.5029"W and station V04 was Lat 28°40'36.18497"N, Long 88°21'46.27996"W.

Elevated concentrations of small particles were detected throughout the water column in Station V01. The rosette hit the bottom, got caught in the cable and was turned on it's side, refer to Image 1. Niskin bottles were contaminated with sediment.





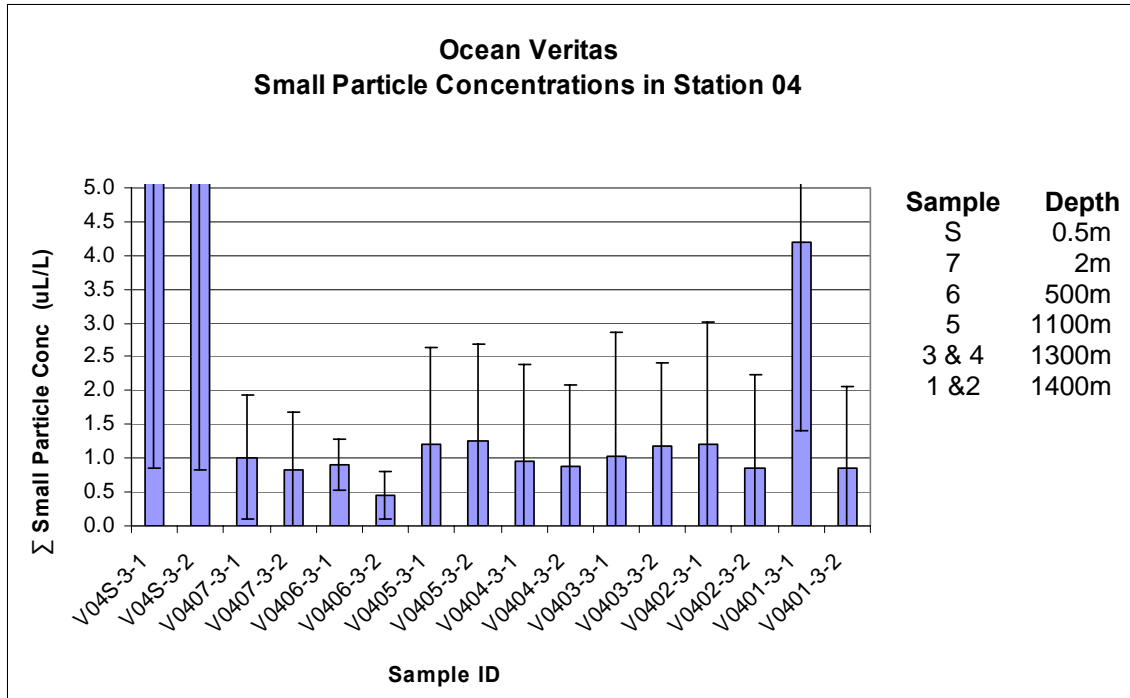


Figure 1: Average small particle concentrations as a function of depth from stations V01 to V04.