

US EPA ARCHIVE DOCUMENT

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

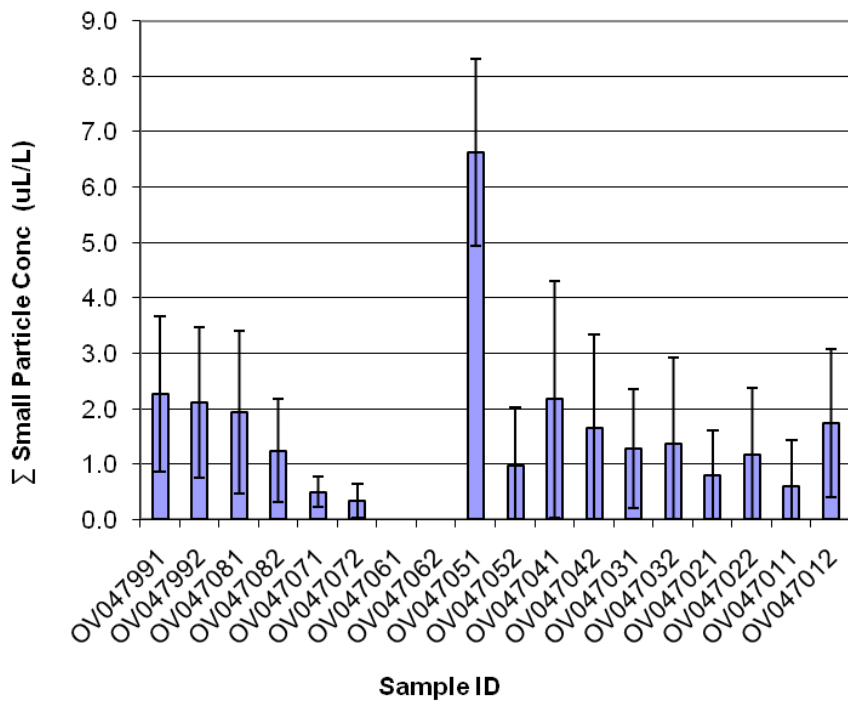
June 15, 2010

Water samples were collected at five stations for particle size distribution measurements using the LISST-100X particle counter. A total of 82 LISST samples were analyzed, including duplicates. Samples were also collected and stored for shore based fluorescence intensity ratio measurements.

Figure 1 presents the small droplet (\sum 2.5 - 60 μ m) particle size data for stations OV047 through OV051. LISST analysis and in-situ fluorometry detected a slightly increased small particle concentration in subsurface around 1000m depth in all stations. The LISST compliments the CTD fluorescence signal revealing a slight elevation of small particles at the bottom depths.

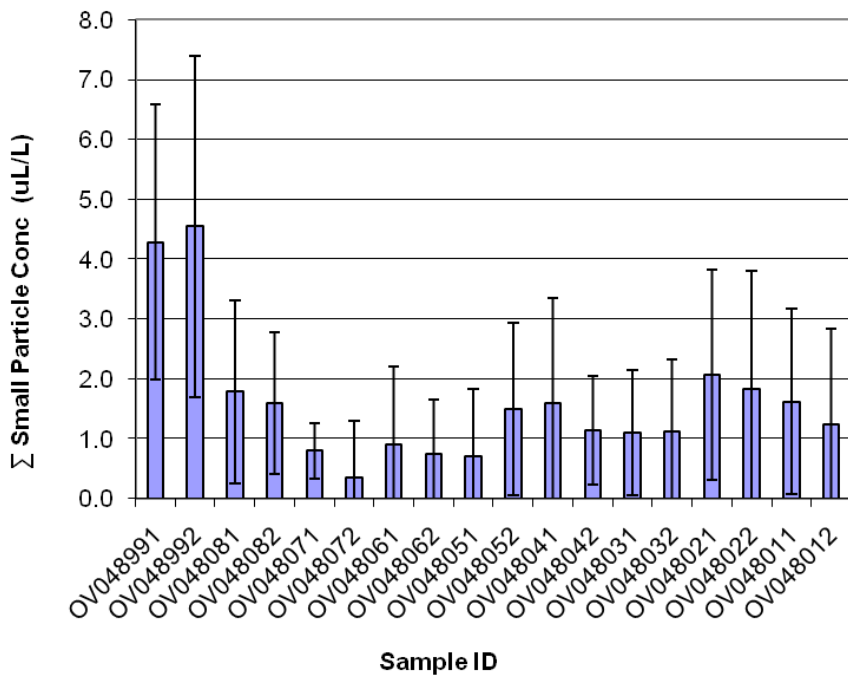
Station #	Lat	Long
OV047	28.741417	-88.417597
OV048	28.732010	-88.376790
OV049	28.780754	-88.387846
OV050	28.780347	-88.347809
OV051	28.754515	-88.357993

Ocean Veritas Small Particle Concentrations in Station OV047



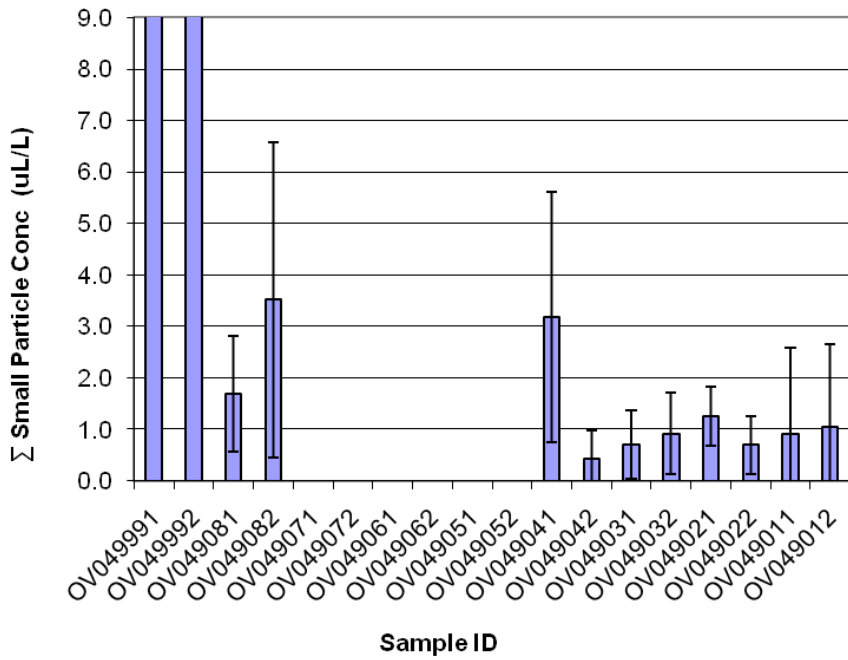
Sample	Depth
99	0.5m
8	3m
7	146m
6	400m
5	989m
4	1012m
3	1047m
2	1200m
1	1460m

Ocean Veritas Small Particle Concentrations in Station OV048



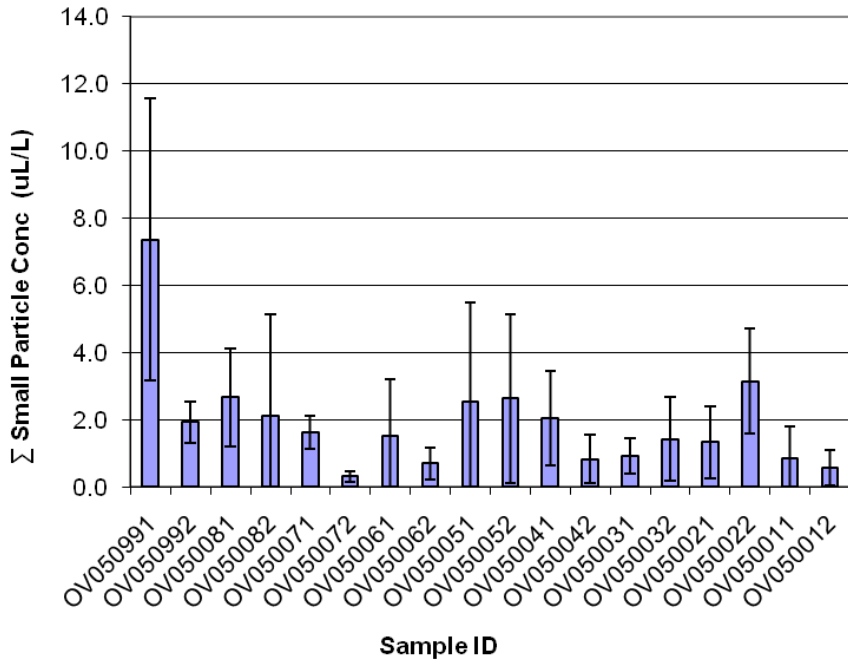
Sample	Depth
99	0.5m
8	3m
7	50m
6	200m
5	400m
4	960m
3	1200m
2	1400m
1	1519m

Ocean Veritas Small Particle Concentrations in Station OV049



Sample	Depth
99	0.5m
8	3m
7	m
6	m
5	m
4	500m
3	1050m
2	1200m
1	1300m

Ocean Veritas Small Particle Concentrations in Station OV050



Sample	Depth
99	0.5m
8	3m
7	50m
6	230m
5	700m
4	960m
3	1105m
2	1160m
1	1300m

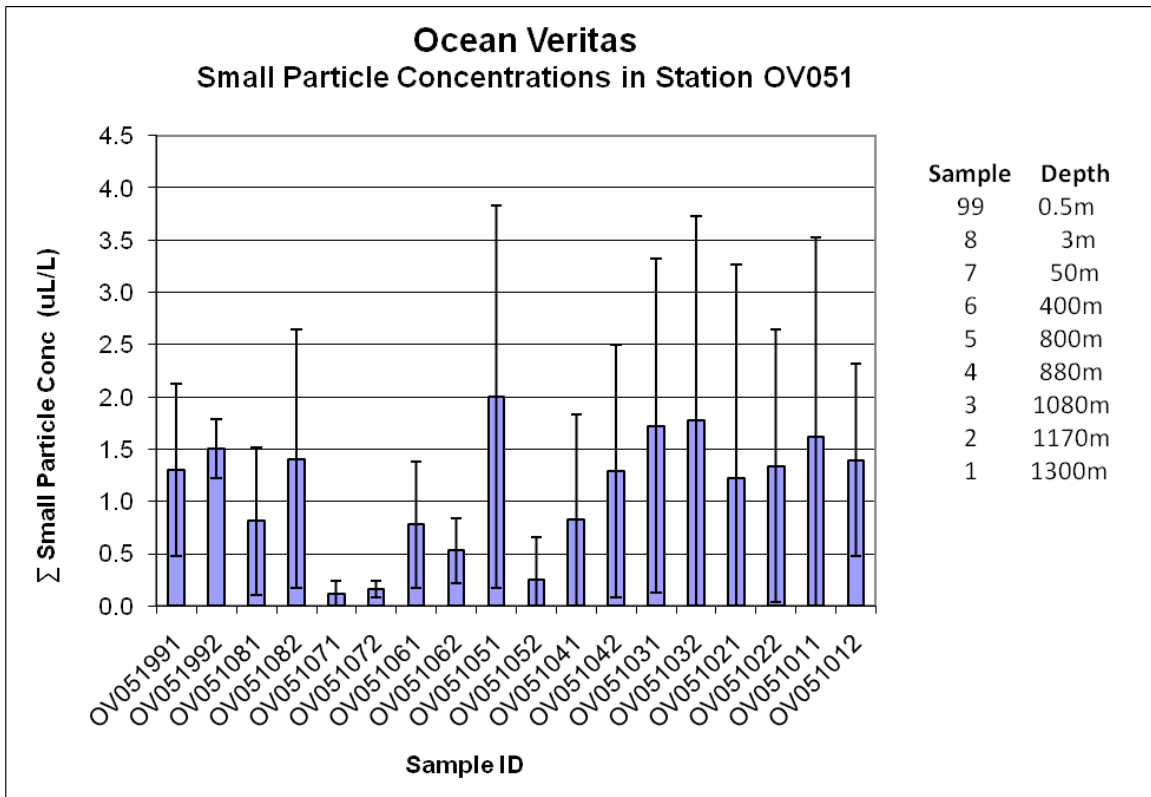


Figure 1: Average small particle concentrations as a function of depth from stations OV042 to OV046.