

Wash Wastewater Filtration

Initial laboratory studies show ADSORBIT® sorbent to be very efficient in selectively adsorbing / absorbing petroleum and vegetable-derived hydrocarbons from water. This work was done using laboratory prepared and controlled test solutions. This test demonstrates ADSORBIT® 's sorbent effectiveness by testing real-world samples. Real-world samples measure not only the ability of the filter material to remove the pollutants of interest, but also to handle water that contains floating and dissolved hydrocarbons, emulsifiers, and detergents, as well as debris that might affect filter performance.

Method

We were provided a five gallon sample of effluent from a logging truck wash station. The sample was thoroughly mixed and split into two sub-samples. One sub-sample was tested to determine suspected organic and inorganic pollutants. The other sub-sample was passed through a filter system using ADSORBIT® filter media and the filtered water was analyzed for the same pollutants.

Results of analytical chemistry are presented in the table below.

Results

Parameter	Method #	Result Unfiltered	Result ADSORBIT® Filtered	Detection Limit	Units
Oil & Grease	EPA 1664	> 1000	6	5	ppm
Total Suspended Solids	EPA 160.2	230	10	5	ppm
#2 Diesel Fuel	NWTPHDX	910	3.4	.02	ppm
Motor Oil	NWTPHDX	15000	3	0.4	ppm
Arsenic	EPA 6020	ND*	ND*	0.006	ppm
Cadmium	EPA 6020	0.0018	ND*	0.0005	ppm
Chromium	EPA 6020	0.013	0.0044	0.001	ppm
Copper	EPA 6010	0.077	ND*	0.01	ppm
Lead	EPA 6010	0.011	ND*	0.01	ppm
Zinc	EPA 6010	2.1	0.85	0.01	ppm

Conclusions

As can be seen in the table above, ADSORBIT® sorbent was highly effective in removing organic pollutants and suspended solids from the sample. Especially notable is the reduction in oil and grease, diesel, and motor oil between the filtered and unfiltered samples.