

## Test Report

**Customer -** xxxx

**Report Number -** T2516

**Tested by -** William Sahrhage

**Date -** 12/19/2006

**Purpose -** Remove fine dust

**Desired Clean Rate -** Best clean

**Required Flow Rate -** 600 kg/hr

**Standard -** Our standard for dry sieve analysis comes from ASTM D1921-96, Test Method B. We generally use sieve sizes in the micron range of 2000, 1000, 500 and pan for smaller sizes. Our wet analysis standard is done in accordance to the European FEM 2482, Type A, B or C, and the Pelletron method. For regrind material, we use the dry sieve analysis, for virgin material the wet test.

**Dust Definition -** We consider dust as particles between 1.6 and 500 micron (Pelletron method). The FEM 2482 defines dusts between 500 and 63 micron (type A), to 40 micron (type B), and to 20 micron (type C). This test was conducted using the Pelletron dust definition.

### Material Description -

**Type:** Activated Carbon

**Trade Name:** Unknown

**Manufacturer:** Unknown

**Bulk Density:** 425.44 kg/cu m

**Pellet Size:** ~0.5 mm to ~7 mm

**Pellet Shape:** Cylindrical

**Picture:**



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**Summary Sheet**

**Test Summary -** Your material sample was cleaned in our Deduster model P10. Samples of the before, after and removed materials were analyzed for particle size distribution to determine the quality of cleaning. Test data is recorded on page 3 and sample pictures are on page 4. All material samples have been packaged for your analysis.

**Result of Test -** Your fine dust level in your material has been significantly reduced. Our standard dry sieve analyses was used to measure the fines content before and after. Carryover of >1000 µm material was less than 0.02 percent.

**Suggestions -** The carbon dust is very fine, ranging from about 5 micron on up. Filter media for the dust collector should be suitable for very fine particulate.

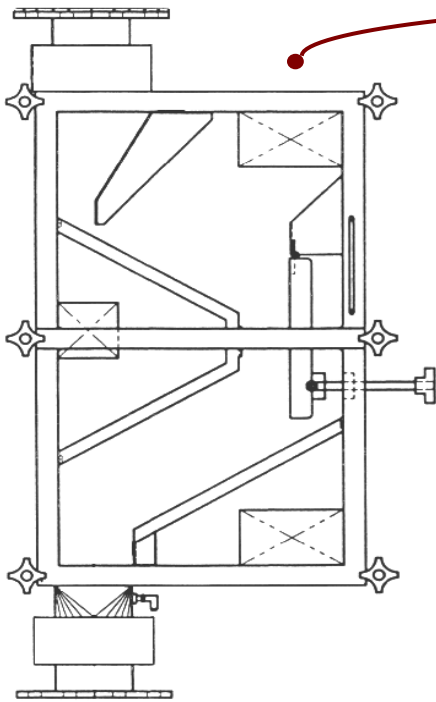
**Deduster Settings -**

Deduster Type:	P10	Inlet Deflector Position:	Left
Filter Type:	PTFE	Venturi Deflector Position:	Right
RPM:	1800	By-Pass Damper Position:	Closed
Product Flow Rate (kg/hr):	220	Bleed Air Valve:	9 mm Open
Feeder Type:	Hopper	Carryover Deflector:	Yes
Feeder Setting:	N/A	Ambient Temperature:	21.2 C
Wash Air Fan Setting:	N/A	Relative Humidity:	39.9%
Variable Frequency Drive:	Yes	Decibels @ 1 Meter:	72

## CONFIDENTIAL Deduster Analysis Data

### As Received Analysis

Total Quantity Cleaned (g) 16879.53  
 Dry Parts Per Million <500 µm 502.9



### Removed Material Analysis

	Percent	~Wt (g)
Quantity Removed:	<span style="border: 1px solid black; padding: 2px;">0.088687</span>	<span style="border: 1px solid black; padding: 2px;">14.97</span>

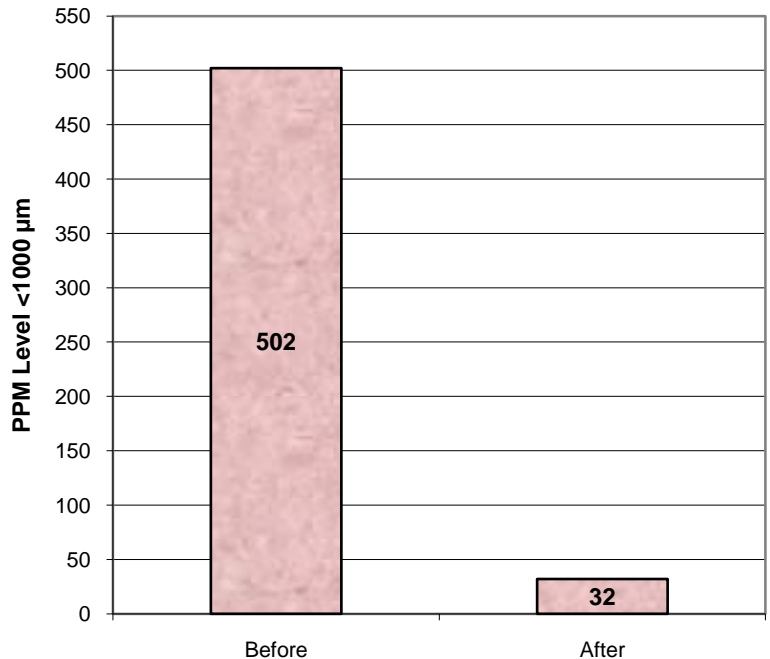
#### Dry Sieve Analysis:

	Percent	~Wt (g)
>2000 Micron	<span style="border: 1px solid black; padding: 2px;">0.7348</span>	<span style="border: 1px solid black; padding: 2px;">0.1100</span>
>1000 Micron	<span style="border: 1px solid black; padding: 2px;">19.9065</span>	<span style="border: 1px solid black; padding: 2px;">2.9800</span>
>500 Micron	<span style="border: 1px solid black; padding: 2px;">26.2525</span>	<span style="border: 1px solid black; padding: 2px;">3.9300</span>
<500 Micron	<span style="border: 1px solid black; padding: 2px;">53.1062</span>	<span style="border: 1px solid black; padding: 2px;">7.9500</span>

### Cleaned Analysis

Quantity Cleaned (g) 16864.56  
 Dry Parts Per Million <500 µm 32

### Dry Parts-Per-Million Analysis



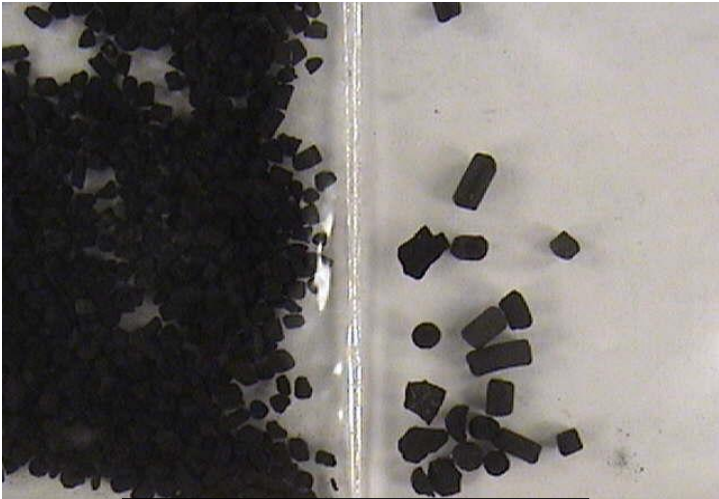
Before Cleaning



After Cleaning



<500 μm      >500 μm  
Removed Material



>1000 μm      >2000 μm  
Removed Material