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# Result Sheet

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Date: **19/12/2025** File No. **63250019** Report No. **251493**  
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 Number of pages including this page: **3**

## Laser Particle Size Distribution Analysis of Crushed Diatomaceous Earth Sample

### Introduction

1 sample of Crushed Diatomaceous Earth was received for laser particle size distribution analysis. The methodology and results from testing are presented in the following pages.

### Methodology

The sample was analysed in the 0.01 to 3500µm range using a Malvern Mastersizer 3000+ Ultra. The measurements were carried out using deionised water as the dispersant. The sample was added to the dispersion unit slowly to reduce the introduction of bubbles into the system. The results are reported as a volume distribution using a general-purpose analysis model.

### Results

The particle size distribution is enclosed within this report. The sample details and values of interest are given in the following table.

Signed: *Callum F* Date: 19/12/2025 Approved: *J. Moulton* Date: 19/12/2025

Callum Fergeus  
 Analytical Chemist

Jarrold Moulton  
 Team Leader - Sustainability

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**Table 1: Sample details and analysis results samples received.**

<b>Client Sample ID</b>	<b>HRL Sample ID</b>	<b>D<sub>10</sub> Value (µm)</b>	<b>D<sub>50</sub> Value (µm)</b>	<b>D<sub>90</sub> Value (µm)</b>
OL20396 – Crushed Diatomaceous Earth	251493-1	4.34	156	511

### Measurement Details

**Operator Name** Mulgrave, Particle Sizer  
**Sample Name** Average of '251493-1 OL20396 Crushed Diatomaceous Earth'  
**SOP File Name** HydroMV.cfg

### Measurement Details

**Analysis Date Time** 19/12/2025 1:08:24 PM  
**Measurement Date Time** 19/12/2025 1:08:24 PM  
**Result Source** Averaged

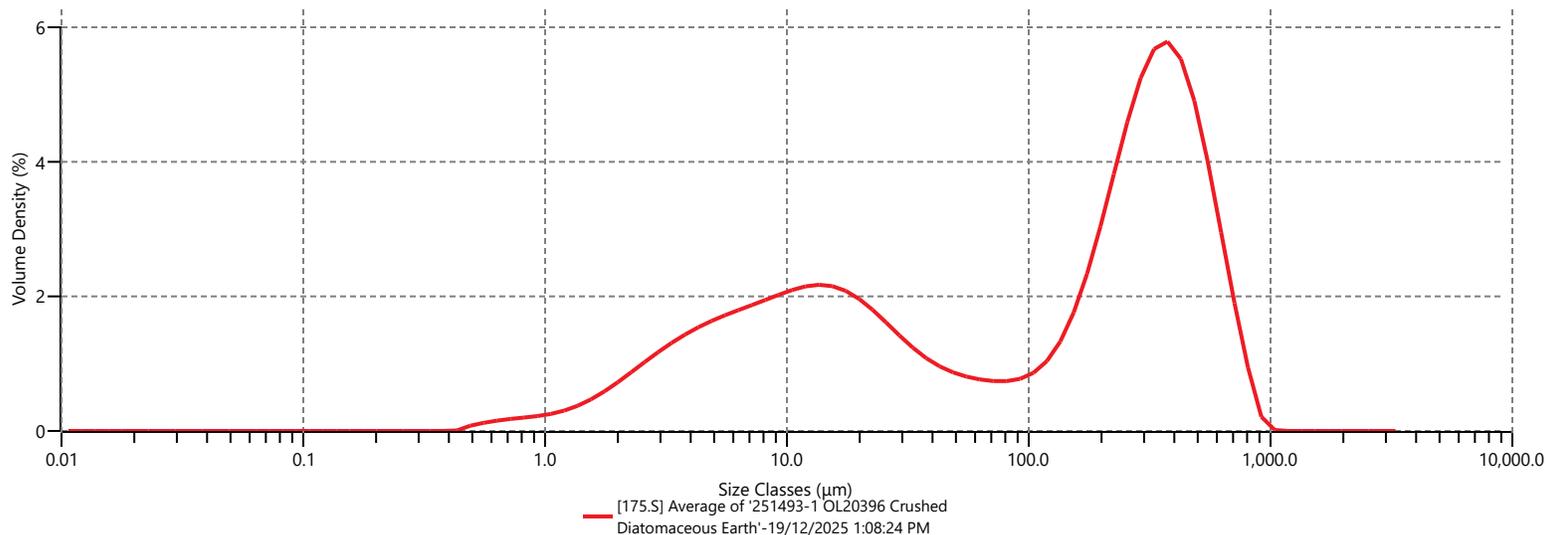
### Analysis

**Particle Name** Default  
**Particle Refractive Index** 1.520  
**Particle Absorption Index** 1.000  
**Dispersant Name** Water  
**Dispersant Refractive Index** 1.330  
**Scattering Model** Mie  
**Analysis Model** General Purpose  
**Weighted Residual** 0.30 %  
**Laser Obscuration** 10.20 %

### Result

**Concentration** 0.0155 %  
**Span** 3.256  
**Uniformity** 1.143  
**Specific Surface Area** 494.4 m<sup>2</sup>/kg  
**D [3,2]** 12.1 μm  
**D [4,3]** 205 μm  
**Dv (10)** 4.34 μm  
**Dv (50)** 156 μm  
**Dv (90)** 511 μm

### Frequency (compatible)



### Result

Size (μm)	% Volume Under														
0.0100	0.00	0.0597	0.00	0.357	0.00	2.50	4.63	14.5	27.54	86.4	45.14	500	89.21	2710	100.00
0.0101	0.00	0.0679	0.00	0.405	0.00	2.75	5.37	16.4	29.55	100	46.00	586	94.26	3080	100.00
0.0129	0.00	0.0771	0.00	0.460	0.00	3.12	6.49	18.7	31.63	111	46.68	666	97.12	3500	100.00
0.0147	0.00	0.0876	0.00	0.523	0.08	3.55	7.77	21.2	33.50	127	47.73	756	98.94		
0.0167	0.00	0.0995	0.00	0.594	0.20	4.03	9.15	24.1	35.25	144	48.98	859	99.84		
0.0189	0.00	0.113	0.00	0.675	0.35	4.58	10.64	27.4	36.82	163	50.62	976	100.00		
0.0215	0.00	0.128	0.00	0.767	0.52	5.00	11.73	31.1	38.18	186	52.94	1000	100.00		
0.0244	0.00	0.146	0.00	0.872	0.71	5.92	13.90	35.3	39.36	211	55.84	1260	100.00		
0.0278	0.00	0.166	0.00	1.00	0.94	6.72	15.63	40.1	40.41	250	60.99	1430	100.00		
0.0315	0.00	0.188	0.00	1.28	1.46	7.64	17.45	45.6	41.34	272	63.93	1630	100.00		
0.0358	0.00	0.214	0.00	1.45	1.81	8.68	19.33	51.8	42.18	310	69.15	1850	100.00		
0.0407	0.00	0.243	0.00	1.65	2.27	10.0	21.51	58.9	42.97	352	74.64	2000	100.00		
0.0463	0.00	0.276	0.00	1.88	2.85	11.2	23.31	66.9	43.70	400	80.27	2150	100.00		
0.0526	0.00	0.314	0.00	2.13	3.54	12.7	25.36	76.0	44.42	454	85.60	2390	100.00		