



Analytical Report



Rock Dust Local LLC
1445 Hemenway Rd.
Bridport, Vermont 05734
802-758-2220
www.RockDustLocal.com

Report ID: AgReport- A14-04945

Sample Name: Diatomite Clay

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Analysis Methods

1) FUS-MS-Na2O2 (Fusion-Inductively Coupled Plasma-Mass Spectrometry-Sodium Peroxide Oxidation)

A sample is oxidized with sodium peroxide through sintering at 650°C. The oxidized material is dissolved in aqueous nitric acid. ICP-MS is used to quantify various elements in the resulting solution.

2) FUS-Na2O2 (Fusion-Inductively Coupled Plasma-Sodium Peroxide Oxidation)

A sample is oxidized with sodium peroxide through sintering at 650°C. The oxidized material is dissolved in aqueous nitric acid. ICP-OES is used to quantify various elements in the resulting solution.

	Test Value	Unit Symbol	Detection Limit	Analysis Method
Arsenic (As)	< 5	ppm	5	FUS-MS-Na2O2
Boron (B)	110	ppm	10	FUS-MS-Na2O2
Barium (Ba)	222	ppm	3	FUS-MS-Na2O2
Beryllium (Be)	< 4	ppm	4	FUS-MS-Na2O2
Bismuth (Bi)	< 2	ppm	2	FUS-MS-Na2O2
Cadmium (Cd)	< 2	ppm	2	FUS-MS-Na2O2
Cerium (Ce)	56.9	ppm	0.8	FUS-MS-Na2O2
Cobalt (Co)	4.5	ppm	0.2	FUS-MS-Na2O2
Chromium (Cr)	80	ppm	30	FUS-MS-Na2O2
Cesium (Cs)	5.3	ppm	0.1	FUS-MS-Na2O2
Copper (Cu)	24	ppm	2	FUS-MS-Na2O2
Dysprosium (Dy)	4.4	ppm	0.3	FUS-MS-Na2O2
Erbium (Er)	3.1	ppm	0.1	FUS-MS-Na2O2
Europium (Eu)	1.2	ppm	0.1	FUS-MS-Na2O2
Gallium (Ga)	12.3	ppm	0.2	FUS-MS-Na2O2
Gadolinium (Gd)	5.6	ppm	0.1	FUS-MS-Na2O2
Germanium (Ge)	3.7	ppm	0.7	FUS-MS-Na2O2
Hafnium (Hf)	< 10	ppm	10	FUS-MS-Na2O2
Holmium (Ho)	1.0	ppm	0.2	FUS-MS-Na2O2
Indium (In)	< 0.2	ppm	0.2	FUS-MS-Na2O2
Lanthanum (La)	30.4	ppm	0.4	FUS-MS-Na2O2
Lithium (Li)	59	ppm	3	FUS-MS-Na2O2
Manganese (Mn)	104	ppm	3	FUS-MS-Na2O2
Molybdenum (Mo)	20	ppm	1	FUS-MS-Na2O2
Niobium (Nb)	9.0	ppm	2.4	FUS-MS-Na2O2
Neodymium (Nd)	29.1	ppm	0.4	FUS-MS-Na2O2
Nickel (Ni)	20	ppm	10	FUS-MS-Na2O2
Lead (Pb)	12.1	ppm	0.8	FUS-MS-Na2O2
Praseodymium (Pr)	7.5	ppm	0.1	FUS-MS-Na2O2
Rubidium (Rb)	89.2	ppm	0.4	FUS-MS-Na2O2
Antimony (Sb)	< 2	ppm	2	FUS-MS-Na2O2
Selenium (Se)	3.8	ppm	0.8	FUS-MS-Na2O2
Samarium (Sm)	5.6	ppm	0.1	FUS-MS-Na2O2
Tin (Sn)	2.8	ppm	0.5	FUS-MS-Na2O2
Strontium (Sr)	125	ppm	3	FUS-MS-Na2O2
Tantalum (Ta)	0.6	ppm	0.2	FUS-MS-Na2O2
Terbium (Tb)	0.8	ppm	0.1	FUS-MS-Na2O2
Tellurium (Te)	< 6	ppm	6	FUS-MS-Na2O2
Thorium (Th)	8.2	ppm	0.1	FUS-MS-Na2O2
Thallium (Tl)	0.7	ppm	0.1	FUS-MS-Na2O2
Thulium (Tm)	0.5	ppm	0.1	FUS-MS-Na2O2
Uranium (U)	10.4	ppm	0.1	FUS-MS-Na2O2
Vanadium (V)	108	ppm	5	FUS-MS-Na2O2
Tungsten (W)	1.9	ppm	0.7	FUS-MS-Na2O2
Yttrium (Y)	27.1	ppm	0.1	FUS-MS-Na2O2
Ytterbium (Yb)	2.7	ppm	0.1	FUS-MS-Na2O2
Zinc (Zn)	190	ppm	30	FUS-MS-Na2O2
Aluminium (Al)	4.29	%	0.01	FUS-Na2O2
Calcium (Ca)	1.45	%	0.01	FUS-Na2O2
Iron (Fe)	2.80	%	0.05	FUS-Na2O2
Potassium (K)	1.3	%	0.1	FUS-Na2O2
Magnesium (Mg)	0.79	%	0.01	FUS-Na2O2
Phosphorus (P)	0.250	%	0.005	FUS-Na2O2
Sulfur (S)	1.10	%	0.01	FUS-Na2O2
Silicon (Si)	33.90	%	0.01	FUS-Na2O2
Titanium	0.45	%	0.01	FUS-Na2O2

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Results Approved By:

Steve Jenkins
Steve Jenkins, PhD