

# Certificate of Analysis

## STANDARD REFERENCE MATERIAL 98 a

### Plastic Clay

(Results based on sample dried for two hours at 140 °C)

Analyst	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Na <sub>2</sub> O	Li <sub>2</sub> O	ZrO <sub>2</sub>	BaO	MgO	CaO	SrO	Cr <sub>2</sub> O <sub>3</sub>	Loss on Ignition
1 <sup>[1]</sup> -----	48.98	33.13	{1.34 <sup>a</sup> 1.37 <sup>b</sup> }	{1.56 <sup>c</sup> 1.63 <sup>d</sup> }	0.11	1.07 <sup>e</sup>	0.080 <sup>e</sup>	0.075 <sup>e</sup>	0.042 <sup>f</sup>	0.031 <sup>e</sup>	0.42 <sup>g</sup>	0.31 <sup>g</sup>	0.041 <sup>g</sup>	0.030 <sup>h</sup>	12.40
2 <sup>[2]</sup> -----	48.91	33.31	1.35	1.64	.10	1.08 <sup>e</sup>	.083 <sup>e</sup>	.064 <sup>g</sup>	-----	.03	.43 <sup>g</sup>	.31 <sup>g</sup>	.037 <sup>g</sup>	.04	12.49
3-----	-----	33.12	1.28 <sup>a</sup>	1.61 <sup>d</sup>	.11 <sup>i</sup>	0.98 <sup>e</sup>	-----	-----	-----	-----	-----	-----	-----	-----	-----
<b>Average--</b>	<b>48.94</b>	<b>33.19</b>	<b>1.34</b>	<b>1.61</b>	<b>0.11</b>	<b>1.04</b>	<b>0.082</b>	<b>0.070</b>	-----	<b>0.03</b>	<b>0.42</b>	<b>0.31</b>	<b>0.039</b>	<b>0.03</b>	<b>12.44</b>

References: [1] G.E.F. Lundell and J.I. Hoffman, NBS J. Res. 1, 91 (1928) RP5.  
 [2] L.C. Peck, Geological Survey Bulletin 1170, (1964).

<sup>a</sup>o-phenanthroline photometric method.  
<sup>b</sup>Iron reduced with SnCl<sub>2</sub> and titrated with standard potassium dichromate solution.  
<sup>c</sup>Cupferron gravimetric method.  
<sup>d</sup>H<sub>2</sub>O<sub>2</sub> photometric method.

<sup>e</sup>Flame emission spectrometric method.  
<sup>f</sup>Pyrocatechol violet photometric method.  
<sup>g</sup>Atomic absorption method.  
<sup>h</sup>Diphenylcarbazide photometric method.  
<sup>i</sup>Molybdenum-blue photometric method.

#### List of Analysts

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