



Magruder Certificate of Analysis

Magruder Sample #201211 Magnesium 36

Analyte	Value	± Standard Uncertainty	# Labs
Total N (1%)	2.264	0.021	77
Acid Soluble Mg (36%)	36.42	0.27	71
Total S (6%)	4.936	0.067	49
Acid Soluble As (ppm)	2.366	0.177	16
Acid Soluble Cd (ppm)	1.095	0.111	19
Acid Soluble Cr (ppm)	58.42	4.02	19
Acid Soluble Co (ppm)	15.58	1.57	19
Acid Soluble Cu (%)	0.06020	0.00119	28
Acid Soluble Fe (%)	0.8406	0.0198	18
Acid Soluble Pb (ppm)	10.57	0.94	21
Acid Soluble Mn (%)	0.3876	0.0099	19
Acid Soluble Ni (ppm)	40.04	2.57	19
Acid Soluble Zn (%)	0.6650	0.0128	31

1. Data obtained from participant results in the Magruder Check Sample Program.
2. Guaranteed concentrations noted by the value preceding the unit in Analyte name.
3. Values are robust means. Standard uncertainty determined as $1.25 \times \text{robust standard deviation} / \sqrt{\text{\#Labs}}$. Results only shown for analytes tested by 16 or more labs. Values and uncertainties for analytes tested by less than 16 labs are available in Analyte Reports.
4. Technical information on Certificate of Analysis available at www.magruderchecksample.org/prod/Articles.html