



Magruder Certificate of Analysis

Magruder Sample #200111 6-2-4 w/S & Humic Acids

Analyte	Value	± Standard Uncertainty	# Labs
Ammoniacal N (%)	6.434	0.048	41
Total N (6%)	7.033	0.038	74
Total P2O5 (%)	3.903	0.075	50
Direct Available P2O5 (2%)	3.677	0.143	42
Soluble K2O (4%)	3.996	0.029	93
Acid Soluble Mg (%)	0.1239	0.0062	17
Total S (5%)	7.596	0.265	47
Acid Soluble Cd (ppm)	10.04	0.47	20
Acid Soluble Cu (%)	0.00137	0.00020	16
Acid Soluble Ni (ppm)	20.98	1.1	18
Acid Soluble Zn (%)	0.01608	0.00072	26
Humic Acids (20%)	21.56	0.47	24

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