Inter-laboratory Quality Control Material Data Sheet

QC Material ID: 15206-QC-PR12224

Product Type: Soil

Issue Date: 2 April 2026

Expiry Date:

Test Name	Methods	n Value	Assigned Value	Assigned Range
Acid P (mg/kg)	Extr Acid P 9G1 9G2 (mg/kg)	9	4,810	3891 - 5729
Air-Dry Moist Content (%)	Air-Dry Moisture Content 2A1 (%)	27	2.21	1.59 - 2.83
Ammonium Nitrogen (mg/kg)	Amm-N 7C1 7C2 (mg/kg) **	21	44.3	33.0 - 55.6
Aqua Regia Aluminium (mg/kg)	Aqua Regia Al 17B1 17B2 17C 1 (mg/kg)	12	2,610	1246 - 3974
Aqua Regia Arsenic (mg/kg)	Aqua Regia As 17B1 17B2 17 C1 (mg/kg)	11	4.72	3.71 - 5.73
Aqua Regia Boron (mg/kg)	Aqua Regia B 17B1 17B2 17C 1 (mg/kg)	12	10.9	8.4 - 13.4
Aqua Regia Cadmium (mg/kg)	Aqua Regia Cd 17B1 17B2 17 C1 (mg/kg)	7	0.158	0.143 - 0.173
Aqua Regia Calcium (mg/kg)	Aqua Regia Ca 17B1 17B2 17 C1 (mg/kg)	15	25,200	20752 - 29648
Aqua Regia Chromium (mg/kg)	Aqua Regia Cr 17B1 17B2 17C 1 (mg/kg)	13	11.9	5.7 - 18.1
Aqua Regia Cobalt (mg/kg)	Aqua Regia Co 17B1 17B2 17 C1 (mg/kg)	10	1.70	1.40 - 2.00
Aqua Regia Copper (mg/kg)	Aqua Regia Cu 17B1 17B2 17 C1 (mg/kg)	15	32.0	26.4 - 37.6
Aqua Regia Iron (mg/kg)	Aqua Regia Fe 17B1 17B2 17 C1 (mg/kg)	12	4,220	3449 - 4991
Aqua Regia Lead (mg/kg)	Aqua Regia Pb 17B1 17B2 17 C1 (mg/kg)	12	15.9	12.3 - 19.4
Aqua Regia Magnesium (mg/kg)	Aqua Regia Mg 17B1 17B2 17 C1 (mg/kg)	15	2,560	2056 - 3064
Aqua Regia Manganese (mg/kg)	Aqua Regia Mn 17B1 17B2 17 C1 (mg/kg)	14	161	142 - 180
Aqua Regia Molybdenum (mg/kg)	Aqua Regia Mo 17B1 17B2 17 C1 (mg/kg)	10	0.840	0.247 - 1.433

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Version 2

Aqua Regia Nickel (mg/kg)	Aqua Regia Ni 17B1 17B2 17C 1 (mg/kg)	10	6.30	3.33 - 9.27
Aqua Regia Potassium (mg/kg)	Aqua Regia K 17B1 17B2 17C 1 (mg/kg)	12	5,280	4519 - 6031
Aqua Regia Selenium (mg/kg)	Aqua Regia Se 17B1 17B2 17 C1 (mg/kg)	6	0.431	0.145 - 0.718
Aqua Regia Sodium (mg/kg)	Aqua Regia Na 17B1 17B2 17 C1 (mg/kg)	13	2,050	1724 - 2376
Aqua Regia Sulphur (mg/kg)	Aqua Regia S 17B1 17B2 17C 1 (mg/kg)	10	1,480	1258 - 1702
Aqua Regia Zinc (mg/kg)	Aqua Regia Zn 17B1 17B2 17 C1 (mg/kg)	16	136	97 - 175
Bray P (mg/kg)	Extr P Bray 9E1 9E2 (mg/kg)	7	381	301 - 461
CaCl2 Extractable B (mg/kg)	CaCl2 Extractable B 12C1 12C 2 (mg/kg)	11	5.30	4.74 - 5.86
Colwell P (mg/kg)	Extr P Colwell 9B1 9B2 (mg/kg)	18	820	542 - 1097
Electrical Cond (dS/m)	Elec Cond 3A1 (dS/m)	29	3.09	2.67 - 3.51
Exch Aluminium (cmol+/kg)	Exch Al 15G1 (cmol+/kg) **	8	0.0127	0.0000 - 0.0474
Exch Calcium (cmol+/kg)	Exch Ca 15A1 (cmol+/kg) **	13	16.3	14.2 - 18.4
Exch Calcium (cmol+/kg)	Exch Ca 15E1 (cmol+/kg)	3	15.4	14.2 - 16.6
Exch Calcium (cmol+/kg)	Exch Ca 15D3 (cmol+/kg)	11	15.6	14.4 - 16.8
Exch Magnesium (cmol+/kg)	Exch Mg 15A1 (cmol+/kg) **	15	8.48	7.06 - 9.90
Exch Magnesium (cmol+/kg)	Exch Mg 15E1 (cmol+/kg)	3	8.19	7.66 - 8.72
Exch Magnesium (cmol+/kg)	Exch Mg 15D3 (cmol+/kg)	14	8.28	7.34 - 9.23
Exch Potassium (cmol+/kg)	Exch K 15A1 (cmol+/kg) **	15	11.7	8.7 - 14.7
Exch Potassium (cmol+/kg)	Exch K 15E1 (cmol+/kg)	3	11.1	9.6 - 12.6
Exch Potassium (cmol+/kg)	Exch K 15D3 (cmol+/kg)	15	11.3	9.2 - 13.4
Exch Sodium (cmol+/kg)	Exch Na 15A1 (cmol+/kg) **	14	7.26	5.99 - 8.52
Exch Sodium (cmol+/kg)	Exch Na 15D3 (cmol+/kg)	15	6.93	5.83 - 8.03

Ext Copper (mg/kg)	Extr Cu 12A1 (mg/kg)	13	4.22	4.01 - 4.43
Ext Iron (mg/kg)	Extr Fe 12A1 (mg/kg)	20	130	99 - 161
Ext Manganese (mg/kg)	Extr Mn 12A1 (mg/kg)	19	41.7	34.9 - 48.5
Ext Potassium (mg/kg)	Extr K 18A1 (mg/kg)	12	4,930	3032 - 6828
Ext Silicon (mg/kg)	Extr Si 13D1 13D2 (mg/kg)	5	154	9 - 299
Ext Sulphur (mg/kg)	Extr S 10B1 10B2 10B3 (mg/kg)	11	228	198 - 258
Ext Sulphur (mg/kg)	Extr S 10D1 (mg/kg)	12	233	179 - 286
Ext Zinc (mg/kg)	Extr Zn 12A1 (mg/kg)	19	49.4	42.0 - 56.8
Ext Zinc (mg/kg)	Extr Zn 12D1 (mg/kg)	4	47.8	22.8 - 72.7
M3-Aluminium (mg/kg)	M3-Al 18F1 (mg/kg)	13	11.4	4.6 - 18.2
M3-Boron (mg/kg)	M3-B 18F1 (mg/kg)	14	6.13	4.03 - 8.22
M3-Calcium (mg/kg)	M3-Ca 18F1 (mg/kg)	15	7,460	5829 - 9091
M3-Copper (mg/kg)	M3-Cu 18F1 (mg/kg)	15	2.95	2.39 - 3.51
M3-Iron (mg/kg)	M3-Fe 18F1 (mg/kg)	17	285	181 - 389
M3-Magnesium (mg/kg)	M3-Mg 18F1 (mg/kg)	11	1,300	1241 - 1359
M3-Manganese (mg/kg)	M3-Mn 18F1 (mg/kg)	17	71.0	57.1 - 84.9
M3-Phosphorus (mg/kg)	M3-P ICP 18F1 (mg/kg)	17	1,600	1303 - 1897
M3-Potassium (mg/kg)	M3-K 18F1 (mg/kg)	15	4,500	3848 - 5152
M3-Sodium (mg/kg)	M3-Na 18F1 (mg/kg)	15	1,680	1265 - 2095
M3-Sulphur (mg/kg)	M3-S 18F1 (mg/kg)	12	219	199 - 238
M3-Zinc (mg/kg)	M3-Zn 18F1 (mg/kg)	15	68.7	60.1 - 77.3
Nitrate Nitrogen (mg/kg)	Nitrate N 7B1 7B2 (mg/kg)	10	116	95 - 136



Nitrate Nitrogen (mg/kg)	Nitrate N 7C1 7C2 (mg/kg)	18	116	72 - 160
Olsen P (mg/kg)	Extr P Olsen 9C1 9C2 (mg/kg)	14	242	175 - 309
Organic Carbon W&B (%)	Org C W&B 6A1 (%) **	13	10.1	6.36 - 13.84
PBI Colwell (L/kg)	PBI Colwell 9I2a 9I2b 9I2c (L/kg)	11	187	131 - 243
PBI Unadjusted (L/kg)	PBI Unadjusted 9I4a 9I4b 9I4c (L/kg)	9	47.0	23.6 - 70.4
pH CaCl2 (pH units)	pH CaCl2 4B1 4B2 4B3 4B4 (pH Units)	25	7.10	6.95 - 7.25
pH Water (pH units)	pH Water 4A1 4A3 (pH Units)	32	7.49	7.35 - 7.62
Total Carbon (%)	Total C 6B2 (%)	31	12.1	9.1 - 15.1
Total Nitrogen (%)	Total N 7A5 (%)	28	0.980	0.768 - 1.192
Total Nitrogen (%)	Total N 7A1 7A2 7A3 (%) **	10	0.923	0.725 - 1.120
Total Org C IR (%)	Total Org Carbon IR 6B4a 6B4b (%)	3	9.17	3.63 - 14.71
Total Organic Carbon (%)	Total Org C 6B1 6B3 (%) **	21	12.0	8.7 - 15.3
Total Organic Matter (%)	Total Org Matter 6G1 (%)	4	20.1	14.6 - 25.6
Total Phosphorus (%)	Total P 9A1 9A3 Not Specified (%) **	16	0.546	0.461 - 0.631
Water Ext Cl (mg/kg)	Water Ext Cl 5A1 5A2 5A3 (mg/kg)	15	2,770	2533 - 3007

** n Values < 8 are indicative only and should be used with caution*

*** These methods should be reported on an oven dried basis (105°C) by using the formula given in method 2A1 of Rayment and Lyons 2011.*

Instructions for use: Due to possible moisture reabsorption, re-dry the sample at 40°C to constant weight prior to analysis

Description: 150g+ irradiated, packaged in plastic jar

Homogeneity: This QC material has been assessed as homogeneous for use in an Inter-Laboratory Proficiency Study

Stability: An expiry period consistent with the shelf life of the product, experience, and technical advice has been applied

Storage: Keep samples at a stable temperature < 25°C (eg in air conditioned storage). Reseal containers after each use. Do not store in sunlight.

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Values: The *Assigned Value* is the consensus median from an inter-laboratory proficiency round excluding outliers; *n Values* are the number of results used to calculate the assigned value. The *Assigned Range* is 2 standard deviations of *n Values*.

Methods: Multiple methods were used in the preparation of these assigned values.