

Reference Material and Inter-laboratory Quality Control Materials Product Summary

May 2023

Version: 1

Assigned Values: Values provided have been generated from an Inter-Laboratory Proficiency Programme (ILPP). The reference material values provided in this summary are the mean of the results after the exclusion of statistical outliers. The Assigned Range provided for the Inter-laboratory QC Materials is the range of test values available for purchase. Each Reference and QC Material comes with a Data Summary Sheet.

Missing Values and Available Tests: For Reference Materials where property values do not meet the statistical criteria, the summary values have not been provided. For this reason, not all tests will be available for every Reference Material of the same matrix. However, if there are 3 or more data points available, an Assigned Value will be provided with the corresponding QC material.

Sample Sizes: Available sample sizes are shown for reference materials.

Reference Materials: Soil Material

Product Type	Soil	Soil	Soil	Soil	Soil
Product ID	652-C-1	650-C-1	803-C-1	804-C-1	805-C-1
Expiry Date	30 Jan 24	30 Jun 25	31 Jan 27	30 Jun 27	30 Sep 27
Sample Size	150g	150g	150g	150g	150g
CaCl ₂ Extractable B (mg/kg)	0.304	0.863			
Colwell P (mg/kg)	225	64.3			
Electrical Cond (dS/m)	0.0847	0.233	0.0684	0.345	
Exch Calcium (cmol+/kg)	3.75	15.0			

Exch Magnesium (cmol+/kg)	0.733	4.79	1.09		
Exch Potassium (cmol+/kg)	0.578	0.575	0.744	0.750	
Exch Sodium (cmol+/kg)	0.0379	0.0497			
Ext Copper (mg/kg)	0.348				
Ext Iron (mg/kg)	232	84.6			
Ext Manganese (mg/kg)	34.0	72.9			
Ext Zinc (mg/kg)	4.52				
Organic Carbon W&B (%)	1.58	1.60			
PBI Colwell (L/kg)		69.9			
pH CaCl2 (pH units)	4.74		4.12	6.74	7.02
pH Water (pH units)		6.47		7.32	7.46
Total Carbon (%)	1.76	1.88	0.945	2.12	3.82
Total Nitrogen (%)	0.197	0.188	0.0801	0.137	0.253
Total Organic Carbon (%)				2.13	3.58
Total Phosphorus (%)			0.0413	0.0224	0.0444
Water Ext Cl (mg/kg)					528

QC Material: Soil Material

Matrix: Soil Material	Product ID	11124-QC	11125-QC	12905-QC	13039-QC	13040-QC
	Process Run	PR10730	PR10728	PR10728	PR10728	PR10730
	Expiry Date	30 Sep 25	30 Sep 25	31 Jan 27	30 Jun 27	30 Sep 27
	Sample Size	150g	150g	150g	150g	150g
	Acid P (mg/kg)	10.9	8.10	42.3	90.0	301
	Bray P (mg/kg)	3.96	3.56	20.3	36.3	97.4
	CaCl ₂ Extractable B (mg/kg)	0.160	0.202	0.523	0.810	1.54
	Colwell P (mg/kg)	9.24	5.77	52.5	45.9	136
	Electrical Cond (dS/m)	0.0420	0.413	0.0680	0.340	0.981
	Exch Aluminium (cmol+/kg)	0.0160	0.200	0.983	0.0100	0.0140
	Exch Calcium (cmol+/kg)	2.25	0.449	1.80	7.81	11.5
	Exch Magnesium (cmol+/kg)	1.53	19.2	1.14	1.80	3.22
	Exch Potassium (cmol+/kg)	0.151	0.970	0.745	0.744	2.99
	Exch Sodium (cmol+/kg)	0.197	11.1	0.110	0.854	1.34
	Ext Copper (mg/kg)	0.208	4.76	2.03	1.60	2.08
	Ext Iron (mg/kg)	54.6	48.5	78.3	134	145
	Ext Manganese (mg/kg)	25.2	5.30	194	9.50	24.8
	Ext Sulphur (mg/kg)	8.35	3.93	27.0	56.6	273
	Ext Zinc (mg/kg)	0.900	2.23	3.58	15.1	20.2
	Olsen P (mg/kg)	3.50	1.55	17.5	18.2	51.6

	Organic Carbon W&B (%)	0.472	0.137	0.768	1.89	3.38
	PBI Colwell (L/kg)	39.2	43.6	97.7	60.3	74.7
	pH CaCl2 (pH units)	5.37	4.76	4.09	6.74	7.02
	pH Water (pH units)	6.32	5.80	4.88	7.30	7.45
	Total Carbon (%)	0.454	0.173	0.939	2.10	3.73
	Total Nitrogen (%)	0.0440	0.0310	0.0760	0.134	0.240
	Total Organic Carbon (%)	0.460	0.161	0.902	2.06	3.59
	Total Phosphorus (%)	0.0140	0.0100	0.0420	0.0220	0.0430
	Water Ext Cl (mg/kg)	9.07	465	8.16	183	496