Reference Material and Inter-laboratory Quality Control Materials
Product Summary

November 2020

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
Product ID	111-C-2	51-C-1	444-C-1
Expiry Date	31 Dec 20	31 Mar 22	30 Jun 23
Sample Size	150g	150g	150g
Acid P (mg/kg)		962	
Bray P (mg/kg)		248	
CaCl2 Extractable B (mg/kg)		1.32	
Colwell P (mg/kg)	45.0		

Electrical Cond (dS/m)		0.163	0.159
Exch Aluminium (cmol+/kg)		0.0964	
Exch Calcium (cmol+/kg)		15.0	
Exch Magnesium (cmol+/kg)	1.60	2.98	
Exch Potassium (cmol+/kg)		0.659	
Exch Sodium (cmol+/kg)	0.274	0.180	
Ext Copper (mg/kg)	0.445	6.69	
Ext Iron (mg/kg)		191	
Ext Manganese (mg/kg)		30.6	4.92
Ext Sulphur (mg/kg)		33.4	
Ext Zinc (mg/kg)	0.921	181	0.474
Olsen P (mg/kg)		125	
Organic Carbon W&B (%)	2.03	6.79	
PBI Colwell (L/kg)		208	
pH CaCl2 (pH units)	5.33	4.92	
pH Water (pH units)	6.06		7.54
Total Carbon (%)		7.87	0.720
Total Nitrogen (%)	0.149	0.490	
Total Organic Carbon (%)		7.70	
Total Phosphorus (%)		0.187	

QC Material: Soil Material

Matrix: Soil Material	Product ID	7122-QC	7468-QC	7879-QC	7880-QC	8703-QC	7883-QC	8666-QC	9104-QC	9105-QC
	Process Run	PR5663	PR5672	PR5733	PR8367	PR7047	PR8367	PR7792	PR7792	PR7792
	Expiry Date	30 Sep 21	31 Mar 22	30 Jun 22	30 Jun 23	06 Sep 23	30 Sep 23	30 Sep 23	30 Jun 24	30 Jun 24
	Sample Size	150g	150g	150g	150g	150g	150g	150g	150g	150g
	Acid P (mg/kg)	212	980	203	24.3	42.0	30.1	165	37.7	31.5
	Bray P (mg/kg)	22.1	250	34.5	11.5	28.6	13.7	52.8	13.0	14.0
	CaCl2 Extractable B (mg/kg)	1.86	1.32	2.07	1.34	0.495	1.93	0.792	1.36	1.66
	Colwell P (mg/kg)	169	359	155	21.3	29.3	21.6	94.6	24.3	22.0
	Electrical Cond (dS/m)	0.115	0.161	0.113	0.111	0.131	0.175	0.213	0.172	0.194
	Exch Aluminium (cmol+/kg)	0.0090	0.0920	0.0100	0.0100	0.0130	0.0080	0.0050	0.0060	0.0040
	Exch Calcium (cmol+/ kg)	8.94	15.6	8.56	7.49	3.24	15.3	14.3	12.5	18.1
	Exch Magnesium (cmol+/kg)	1.82	2.95	1.77	6.88	0.530	11.6	1.57	5.87	9.87
	Exch Potassium (cmol+/kg)	1.47	0.678	1.59	1.10	0.640	1.25	0.747	1.14	1.63
	Exch Sodium (cmol+/ kg)	0.132	0.173	0.124	1.52	0.0600	2.28	0.400	0.227	1.21
	Ext Copper (mg/kg)	1.40	6.58	1.38	2.08	0.440	2.00	0.776	1.47	1.63
	Ext Iron (mg/kg)	6.71	184	9.13	29.3	28.9	11.3	123	18.3	18.0
	Ext Manganese (mg/ kg)	336	31.6	274	171	29.0	61.4	192	40.0	25.4
	Ext Sulphur (mg/kg)	73.8	35.2	80.6	15.3	10.3	14.1	64.7	12.2	10.1
	Ext Zinc (mg/kg)	0.607	182	0.613	0.800	1.62	0.405	6.65	3.48	1.04
	Olsen P (mg/kg)	44.7	121	43.0	8.68	14.5	9.89	37.6	10.1	9.05

	Organic Carbon W&B (%)	2.32	6.70	2.29	0.840	1.52	0.735	2.72	0.737	0.720
	PBI Colwell (L/kg)	594	209	529	62.5	25.0	93.6	104	68.7	103
	pH CaCl2 (pH units)	5.96	4.91	5.76	6.09	5.00	7.21	5.87	7.40	7.43
	pH Water (pH units)	6.53	5.50	6.40	7.20	5.73	8.12	6.45	7.97	8.19
	Total Carbon (%)	2.86	7.91	2.88	0.919	1.63	0.799	3.09	0.873	0.830
	Total Nitrogen (%)	0.227	0.491	0.228	0.0870	0.134	0.0840	0.342	0.0830	0.0780
	Total Organic Carbon (%)	2.71	7.90	2.73	0.911	1.60	0.790	3.10	0.837	0.770
	Total Phosphorus (%)	0.162	0.185	0.160	0.0170	0.0190	0.0180	0.0800	0.0250	0.0190
	Water Ext Cl (mg/kg)	11.1	14.9	10.9	19.0	30.0	23.6	66.9	13.3	30.9