Australasian Soil and Plant Analysis Council Inc.

ASPAC Soil Proficiency Testing Program Report

2018

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Foreword

This is the latest of ASPAC's many inter-laboratory proficiency program (ILPP) reports for soils since 1993. This reporting format for soils has applied since ASPAC's 2004-05 annual program (see Rayment *et al*. 2007)[1]. Nowadays, ILPPs for common soil chemical tests have three "rounds" each of four carefully prepared and milled air-dry soils. Similar annual programs for milled plant tissue samples operate concurrently (e.g., Lyons *et al.*2013)[2].

This ILPP continued ASPAC's Australasian focus and targeted laboratories in the private, government and university sectors that provide soil testing services for a range of purposes. These mostly locate in Australia, New Zealand, Oceania, and in parts of South-east Asia.

The Service Provider for ASPAC is Global Proficiency Ltd. This company operates mainly out of New Zealand, with key personnel and contact details provided on page iv.

Technical aspects of this ILPP were specified and over-sighted by ASPAC's Laboratory Proficiency Committee (LPC), recent membership of which is listed on page iv. In addition, LPC members and two key personnel from the Service Provider participate annually in a Technical Advisory Group (TAG), chaired by a senior representative of the Service Provider.

The ASPAC-LPC and the ASPAC Executive Committee also appreciate the efforts made by laboratories who utilized this method-specific proficiency program. By participating, they share a commitment to and responsibility for perceived measurement quality across Australasia, noting that proficiency in measurement is only a component of laboratory accreditation to Australian Standard AS ISO/IEC 17025-2005, which should be an achievement goal for laboratory managers.

An electronic copy of this report, and other similar completed annual program reports, can be downloaded from ASPAC's public web site at www.aspac-australasia.com.

Dr Roger Hill
Convenor, ASPAC-LPC

1 Rayment, G.E., Peverill, K.I., Hill, R.J., Daly, B.K., Ingram, C. and Marsh, J. (2007). ASPAC Soil Proficiency Testing Program Report 2004-05. (73 + vi pp.) ASPAC, Melbourne, Victoria.

2 Lyons, D.J., Rayment, G.E., Daly, B.K., Hill, R.J., Ingram, C. and Marsh, J. (2013). "ASPAC Plant Proficiency Testing Program Report 2008-09". (47 + vi pp.) ASPAC, Melbourne, Victoria.

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Memberships

Membership of ASPAC's LPC 2018

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Service Provider Details

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Global Proficiency Ltd (GPL)[A].	*Business Manager:* Gordana.Aleksic@global-proficiency.com
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[A] ***Note:*** GPL, under its "SoilChek" logo, is accredited by IANZ (the New Zealand accreditation authority) to ISO/IEC 17043:2010 standard, noting that IANZ is a full member of both the International Laboratory Accreditation Cooperation (ILAC), and Asia Pacific Laboratory Accreditation Cooperation (APLAC). GPL is also recognized by NATA (National Association of Testing Authorities of Australia) as a proficiency provider.

Contents

1. Introduction

This not-for-profit, annual ASPAC Soil Proficiency Testing Program Report for 2018 documents program methodology, summary statistics, and a full listing of results by test for three "rounds" of soil chemical testing. For historical details on earlier annual soil ILPP's undertaken by ASPAC, refer to Rayment *et al*. (2007) referenced earlier in this report. These reports are also available for downloading from ASPAC's public web site at *www.aspac-australasia.com.*

The report includes an outline of how ASPAC now confers performance-based, method-specific certification to laboratories that regularly participate. To respect confidentiality, the cross-reference between laboratory name and laboratory identification number is not included. However, laboratories certified as proficient for specific tests in this annual program were documented at the time on ASPAC's public web site.

2. Program Details

2.1 Responsibilities

GPL- see page iv -under its "Soil Chek" arrangements, was contracted by ASPAC as the soil ILPP provider for 2018. Accordingly, GPL had responsibility on a "round-by-round" basis for sourcing and preparation of samples, for ensuring the samples met international and/or within-country quarantine requirements, and for the timely supply of samples to participating laboratories. GPL also undertook data analysis and "round-by-round" reporting for ASPAC and assembled the summary and "raw" data provided in Section 3 and Appendix 4, respectively, of this report.

ASPAC's LPC- see page iv- had responsibility to implement and resolve matters of policy and to provide guidance on technical matters specific to soil chemical testing both to GPL and to laboratory participants. The LPC also undertook occasional checks and audits for quality control purposes, participated in the earlier mentioned TAG, contributed to training workshops, and assisted (on request) laboratory managers with technical aspects on measurement improvement. As always, laboratory managers were encouraged to seek help from ASPAC when shown to be operating at levels of measurement performance below their peers.

Participants receive or have a unique, confidential laboratory number, subsequently used to identify the origin of each result presented in program reports and lists of results. This identification number has typically carried forward from one annual program to the next, but code numbers changed in 2014-15 and beyond.

ASPAC's web-site manager and others updated the public web site with details on method-specific certifications and lists of laboratories that undertook those soil tests. The proficiency data used was supplied by GPL and over-sighted by the Convener of the ASPAC-LPC.

2.2 Soil program participation

Some 68 laboratories submitted results for at least one soil test in 2018, 7 more than in 2017. Names and other summary contact details for the participants are provided in Appendix 1. There were 50 laboratories involved from Australia, an increase of 5 from 2017 (NSW=11; QLD=9; VIC=14; SA=5; WA=10, TAS=1; ACT=1), 7 from New Zealand (no change), and 11 from Asia and the south Pacific, including 2 each from Papua New Guinea and Thailand, and 1 each from Fiji, Guatemala, Indonesia, Laos, Philippines, Samoa and Vietnam.

Most reported results (see Table 2.1) across the three "rounds" combined were submitted for method 4A1 (45 average for pH, 1:5 soil-water) followed by method 3A1 (44 average for electrical conductivity, 1:5 soil-water). The median was 19 laboratories for each method. While not assessable for certification, the number of laboratories reporting Aqua Regia digestible elements, including trace elements, increased from the previous year.

Table 2.1. Test methods, corresponding method codes and the arithmetic average number of results per round submitted by participating laboratories in the ASPAC 2018 soil ILPP.

Soil Tests	Method Codes[i]	Number of participants		
		Mar 18	Jun 18	Sep 18
Air Dry Moisture	2A1	34	33	32
Electrical conductivity 1:5 soil-water	3A1	44	45	43
Soil pH, 1:5 soil-water	4A1 + 4A3	45	45	45
Soil pH, 1:5 0.01 M $CaCl_2$	4B1 + 4B3 + 4B2 + 4B4	38	34	34
Water soluble Cl — pooled	5A1 + 5A2 + 5A3	30	31	31
Organic Carbon —W&B	6A1	23	22	21
Total Organic C — Pooled	6B1 + 6B3 + 6B5	20	18	16
Total C — Dumas	6B2	26	26	25
Total N – Dumas	7A5	33	32	33
Total N – Pooled	7A1 + 7A2	8	10	11
Water Soluble Nitrate N — autocolour	7B1 + 7B2	16	16	16
KCl Extractable Nitrate N — autocolour	7C2	24	25	26
KCl Ext. Ammonium N — autocolour	7C2	31	32	31
Total P – all methods %	Pooled	24	26	24
Colwell Extractable P	9B1 + 9B2	31	32	32
Olsen Extractable P	9C1 + 9C2	23	28	26
Bray-1 Extractable P	9E1 + 9E2	13	10	10
Acid Extractable P	9G1 + 9G2	13	13	13
Phosphorus buffer index (with Colwell P)	9I2a + 9I2b + 9I2c	21	20	21
Phosphorus buffer index (unadj)	9I4a + 9I4b + 9I4c	12	13	13
KCl 40 Extractable S	10D1	16	19	17
DTPA Extractable Fe	12A1	26	27	28
DTPA Extractable Cu	12A1	26	26	28
DTPA Extractable Mn	12A1	26	26	28
DTPA Extractable Zn	12A1	26	26	28
$CaCl_2$ Extractable B — manual colour	12C1 + 12C2	21	22	23
Exchangeable Ca — 1M NH_4Cl extract	15A1	22	22	22
Exchangeable Mg — 1M NH_4Cl extract	15A1	22	22	22
Exchangeable Na — 1M NH_4Cl extract	15A1	22	20	22
Exchangeable K — 1M NH_4Cl extract	15A1	22	21	22
Exchangeable Ca — 1M NH_4OAc extract	15D3	18	16	17
Exchangeable Mg — 1M NH_4OAc extract	15D3	18	16	17

Soil Tests	Method Codes[i]	Number of participants		
		Mar 18	Jun 18	Sep 18
Exchangeable Na — 1M NH_4OAc extract	15D3	18	16	17
Exchangeable K — 1M NH_4OAc extract	15D3	18	16	17
Exchangeable Al — 1M KCl extract	15G1	18	20	18
Bicarbonate Extractable K	18A1	11	12	13
Aluminium	18F1	14	15	16
Boron	18F1	14	14	16
Calcium	18F1	13	14	16
Copper	18F1	14	15	17
Iron	18F1	14	15	17
Magnesium	18F1	13	14	16
Manganese	18F1	14	15	17
Phosphorus – ICP	18F1	14	15	17
Potassium	18F1	13	14	16
Sodium	18F1	13	14	15
Sulphur	18F1	13	13	14
Zinc	18F1	14	15	17

Soil Tests – NOT CERTIFIED[ii]	Method Codes[i]	Number of participants		
		Mar 18	Jun 18	Sep 18
Total Aluminium (mg/kg)	17B1 + 17B2	10	12	11
Total Calcium (mg/kg)	17B1 + 17B2	11	13	12
Total Chromium (mg/kg)	17B1 + 17B2	8	12	11
Total Copper (mg/kg)	17B1 + 17B2	11	12	13
Total Iron (mg/kg)	17B1 + 17B2	10	12	11
Total Lead (mg/kg)	17B1 + 17B2	9	7	10
Total Magnesium (mg/kg)	17B1 + 17B2	11	13	12
Total Manganese (mg/kg)	17B1 + 17B2	11	13	13
Total Potassium (mg/kg)	17B1 + 17B2	11	11	12
Total Sodium (mg/kg)	17B1 + 17B2	10	10	10
Total Sulphur (mg/kg)	17B1 + 17B2	8	8	8
Total Zinc (mg/kg)	17B1 + 17B2	11	12	12

Soil Tests – NOT ASSESSABLE[iii]	Method Codes[i]	Number of participants		
		Mar 18	Jun 18	Sep 18
Phosphate Extractable S	10B1 + 10B2 + 10B3	8	6	7
Total Organic Matter (%)	6G1	8	8	9
Total Arsenic (mg/kg)	17B1 + 17B2	7	5	7
Total Boron (mg/kg)	17B1 + 17B2	5	5	6
Total Cadmium (mg/kg)	17B1 + 17B2	6	6	8

Soil Tests – NOT ASSESSABLE[iii]	Method Codes[i]	Number of participants		
		Mar 18	Jun 18	Sep 18
Total Cobalt (mg/kg)	17B1 + 17B2	8	7	7

[i] Unless otherwise indicated, soil method codes are as defined by Rayment, G.E. and Lyons, D.J. (2011). *Soil Chemical Methods - Australasia*. CSIRO Publishing, Collingwood, Victoria, Australia.

[ii] NOT CERTIFIED table lists tests for which there were sufficient results reported for statistical analysis (>7) but are not yet part of the certification program.

[iii] NOT ASSESSABLE table lists tests for which there were insufficient results reported for statistical analysis (<7) and are not yet part of the certification program.

2.3 Tests and methods

The three proficiency "rounds" for soils – each comprised of four samples – were offered in March, June and September, 2018. Participants were invited to analyse each sample by the methods listed and/or coded in Table 2.1. Participants were not required to submit results for all of the methods listed, noting that selected methods, including phosphate buffer index (Colwell) and phosphate buffer index (Olsen), were "scored" as one method each, irrespective of which analytical finish was used. This "pooling" also occurred for extractable P tests and some others, with details provided in Table 2.2. 'Pooling' test results is done for tests which the LPC deem to be equivalent and should therefore yield the same results. The most common instance is where a common extraction may have different analytical finishes, e.g. atomic absorption spectroscopy (AAS) or inductively coupled plasma optical emission spectroscopy (ICP-OES). Grouping these tests together reduces the total number of tests and also provides larger datasets for statistical analysis. Data summaries in Section 3 also indicate where there was method "pooling".

Participating laboratories were required by ASPAC to report all tests either on an air dry (40ºC) or an oven dry (105 ºC) soil-weight basis (not a soil-volume basis), as per the reporting guidelines published by Rayment and Lyons (2011). Indeed, routine soil fertility tests in Australia are mostly reported on an air-dry (40ºC) soil-weight basis. Those results reported on an oven-dry result in this report therefore required a final calculation using the air-dry moisture percentage included in the program as method-code 2A1.

Table 2.2. Method "pooling" summary for the ASPAC 2018 soil ILPP

Soil Tests	Method Codes	Average participants
Soil pH, 1:5 0.01 M $CaCl_2$ - direct, pooled air dry	4B1 + 4B2 + 4B3 + 4B4	35
Soil pH, soil/water suspension - NEW	4A1 + 4A3	45
Water Soluble Cl – Pooled	5A1 + 5A2 + 5A3	31
Total Carbon – Pooled %	6B1 + 6B3 +6B5	18
Total Nitrogen – Pooled %	7A1 + 7A2	10
Total P – pooled % oven dry	Pooled	25
Colwell Extractable P – pooled mg/kg air dry	9B1 + 9B2	32
Olsen Extractable P – pooled mg/kg air dry	9C1 + 9C2	26

Soil Tests	Method Codes	Average participants
Bray-1 Extractable P – pooled mg/kg air dry	9E1 + 9E2	11
Acid Extractable P – pooled mg/kg air dry	9G1 + 9G2	13
Phosphorous Buffer Index (Colwell) L/kg dry wt	9I2a + 9I2b + 9I2c	21
Phosphorous Buffer Index (Unadj) L/kg dry wt	9I4a + 9I4b + 9I4c	13
Phosphate Extractable S, pooled mg/kg air dry	10B1 + 10B2 + 10B3	7
Hot $CaCl_2$ Extractable B – pooled mg/kg air dry	12C1 + 12C2	22

2.4 Sample preparation and identification

In common with practices since the 2004-05 soils program, potential samples were assessed for homogeneity by laboratories accredited to ISO/IEC 17025 standard. Specifically, 10 containers of each sample were selected at random and batched according to the principles described by Thompson and Wood (1993)[3]. These sub-samples were then tested in duplicate for Total N by Dumas Combustion.

Results from the homogeneity testing were subsequently statistically assessed according to ISO REMCO Protocol N231 "*Harmonised Proficiency Testing Protocol*" of January 1992. All prepared soils were rated as homogenous, as demonstrated in Appendix 2. In addition to testing for homogeneity, the soil samples were irradiated or otherwise rendered biologically benign to comply with international and/or national biosecurity regulations or requirements[4].

Ultimately, the samples used in the three "rounds" of the 2018 program were distributed and coded as follows: March 2018 (Round 3) ASS 1803-1 to 1803-4; June 2018 (Round 6) ASS 1806-1 to 1806-4; and September 2018 (Round 9) ASS 1809-1 to 1809-4. The association between sample code and origin of the various soils is provided in Table 2.3.

Table 2.3. Sample identification and the origin of the samples included in the ASPAC 2018 soil ILPP

Sample ID	*Round ID*	*Sample Origin*	*Previous Rounds*
ASS 1803-1	**3**	NSW	ASS1609-3
ASS 1803-2		NZ	N/A
ASS 1803-3		NSW	N/A
ASS 1803-4		QLD	N/A
ASS 1806-1	**6**	QLD	ASS1706-2, ASS1511-1
ASS 1806-2		WA	N/A
ASS 1806-3		NSW	N/A
ASS 1806-4		VIC	N/A

[3] Thompson, M and Wood, R. (1993). International harmonized protocol for proficiency testing of (chemical) analytical laboratories. *Journal of AOAC International* ***76*** (4), 926 – 940.

[4] Rayment, G.E. (2006). Australian efforts to prevent the accidental movement of pests and diseases in soil and plant samples. *Commun. Soil Sci. Plant Anal*. **37**, 2107-2117.

ASS 1809-1	9	TAS	ASS1709-3
ASS 1809-2		NZ	N/A
ASS 1809-3		NSW	N/A
ASS 1809-4		WA	N/A

2.5 Data analysis and periodic reporting

Laboratory results, after submission to the Service Provider, were entered into a database and double-checked for data transfer accuracy and required soil-moisture status prior to data processing.

The non-parametric assessment of laboratory performance for each sample and method (and/or "pooled" methods) was performed by an iterative statistical procedure similar to that used in the WEPAL inter-laboratory proficiency programs of Wageningen University. This procedure[5,6,7,8] is suited to datasets of as few as six to seven laboratories, although larger laboratory populations are preferred. An outline of the median / MAD statistical procedure is provided in Appendix 3, with terms described in Table 2.4. In addition to medians and MADs, other statistical parameters (also described in Table 2.4) were calculated before and following the omission of non-conforming results. The "raw" data submitted by participating laboratories on a test-by-test basis are documented in Appendix 4, sometimes after rounding only for table formatting purposes.

Results submitted by each laboratory were expected to reflect the procedural and reporting guidelines in the chapter on that topic in Rayment and Lyons (2011). Like other programs nationally and internationally, the program did not accept as a numeric value a result reported as less than (<) or greater than (>) a specified number. In cases where the expected value was below the laboratory's lower limit of reporting, the expectation was that the laboratory would report a value half way between that value and zero. For high values, dilution was the option.

Interim "round" reports, summarizing measurement performance relative to the performance of all laboratories in the program that undertook the same test/s, were routinely and promptly e-mailed to laboratory participants. The main purpose of the interim reports was to provide feedback and to enable laboratories to take prompt action where appropriate. Interim reports also provided an opportunity to correct for data-transfer and data-processing misinterpretations. In addition, regular Newsletters from the Service Provider went to participating laboratories, adding to the information provided in ASPAC's own Newsletter to its members (the *ASPAC Digest*).

Laboratories that participated in the 2018 soil ILPP each received from the Service Provider (on behalf of ASPAC) a laboratory specific, confidential, annual summary report. Each laboratory's data for the 12 soil samples, the aggregate data from all participants, other relevant statistical data, and whether or not the test/s received ASPAC Certification (if applicable) were provided. The laboratory code number was included.

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5 Houba, V.J.G., Uittenbogaard, J. and Pellen, P. (1996). Wageningen evaluating programmes for analytical laboratories (WEPAL), organization and purpose. *Commun. Soil Sci. Plant Anal.* **27**, 421-429.

6 Montford, M.A.J. van. (1996). Statistical remarks on laboratory–evaluating programs for comparing laboratories and methods. *Commun. Soil Sci. Plant Anal*. ***27***, 463-478.

7 Rayment, G.E., Miller, R.O. and Sulaeman, E. (2000). Proficiency testing and other interactive measures to enhance analytical quality in soil and plant laboratories. *Commun. Soil Sci. Plant Anal.* ***31***, 1513-1530.

8 Whitehouse, M.W. (1987). Medians and MADs - Statistical methodology used at Wageningen, The Netherlands, for interlaboratory comparisons in the plant exchange program. Ag. Chem. Br. Report, ACU87/36. 10 pp. (Qld Dept. Primary Ind., Brisbane.)

2.6 ASPAC certification of laboratories for soil tests

Subject to satisfactory measurement performance for twelve samples across three sequential "rounds", typically over the twelve-month period, ASPAC awarded participating laboratories with a printed, signed and dated *Certificate of Proficiency.* The *Certificate of Proficiency* identified performance for each test that met criteria set in advance by ASPAC. Method specific certification applied when a laboratory incurred no more than four demerit points for the twelve samples in the program year.

Demerit points (if any) were allocated through the identification of "outliers" and "stragglers" (see Appendix 3) by the "median / MAD" statistical procedure mentioned earlier in this report. Two demerit points were allocated to each statistical "outlier", while a statistical "straggler" was allocated one demerit point. As no sample result could be both an "outlier" and a "straggler", a maximum of two demerit points is all that could accrue per sample for a specific test.

Three (3) was set as the maximum number of demerit points for a specific test, that could be accrued in any one round of four samples. This was done so that unsatisfactory measurement for a test in one "round" did not in itself result in failure to be certified for that test across the three "rounds" in the designated 12-month period.

If a "round" was missed, the maximum number of three demerit points for every test in that "round" was allocated, unless very special circumstances applied and was known or advised expeditiously to ASPAC's LPC through its Convenor. When the explanation was accepted, performance from the three most recently completed "rounds" was used to assess eligibility for certification. No exceptions applied to this annual program.

Finally, when six (6) laboratories or less submitted results for a particular test and/or sample (including for "pooled" tests), proficiency assessments could not be made statistically with an acceptable level of confidence and hence certification for the affected test/s could not be granted. Importantly, ASPAC's *Certificates of Proficiency* are only issued on completion of each annual program of three "rounds". Moreover, ASPAC provide details of certified laboratories by test on its public web site. Those certifications remain valid until superseded by corresponding findings from the next annual soil program.

Table 2.4. Statistical terms and their meanings in the context of this ASPAC annual report

Statistical term	*Meaning and/or derivation*
Count or number	Original population size.
Maximum i	The highest of a range of values, based on the initial data set.
Minimum i	The lowest of a range of values, based on the initial data set.
Median	The median is the score (value) at the 50th percentile, also called the 2nd quartile or 5th decile. It is the score or potential score in a distribution of scores, above which and below which one-half of the frequencies fall. It is the middle observation of a sequentially sorted array of numbers, except in the case of an even sample size. Here it is the arithmetic mean of the two observations in the middle of the sorted array of observations. The median of a reasonably sized array of numbers is insensitive to extreme scores.
Mean[A]	The arithmetic mean (or average) is the sum of the values of a variable divided by their number. It represents the point in a distribution of measurements about which the summed deviations equals zero. The arithmetic mean is sensitive to extreme measurements.
MAD	The Median of the Absolute Deviations, calculated as the median of the absolute values of the observations minus their median.
Interquartile range (IQR)	This is calculated by subtracting the score at the 25th percentile (referred to as the first quartile; Q_1) from the score at the 75th percentile (the third quartile; Q_3). This value is affected by the assumptions made in the calculation of the first and third quartiles, particularly for low population sizes. Moreover, these differences exist within and across statistical software packages. Prior to the 2004-05 rounds, ASPAC used the algorithm employed by EXCEL and some others. For this program, the algorithm employed was that of SAS Method 4[9]. In summary, IQR = Q_3-Q_1.
Normalized IQR	This equates to IQR x 0.7413, where the latter is a normalizing factor.
Robust % CV[10]	The robust coefficient of variation (Robust % CV) = (100 x normalized IQR / median). For simplicity, the Robust %CVs shown are for the initial results, and for the "final" population of results for a test after the removal of any "outliers" or "stragglers", following one or two iterations.
Integer "i" and the letter "f" associated with medians, means, MADs, IQR and Robust %CVs in data summaries.	The integer "i" relates to the initial data set. The letter "f" relates to the "final" data set, generated after one or two iterations, typically after removal of laboratories with statistical "outliers" (if any), and statistical "stragglers" (if any).

A When the mean is greater than the median, the distribution is positively skewed. When the mean is lower than the median, the distribution is negatively skewed.

9 SAS Procedure Guide.

10 "Guide to NATA Proficiency Testing". 27 pp. (National Association of Testing Authorities, Australia, December 1997).

3. Summary Statistics

This section provides summary data and associated statistics (values sometimes rounded for table formatting purposes) on all tests (plus key "pooled" combinations) for each of the 12 samples used across three soil "rounds" in 2018. The tabulations include initial and subsequent values for the iterative "median / MAD" procedure plus other parametric and robust statistics. Table 2.4 and Appendix 3 have the meaning or derivation of the terms and statistics used in the tabulated summaries.

2018: Air-Dry Moisture Content 2A1 (%)

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	34	34	34	34	31	31	34	34	32	33	33	31
Minimum	0.062	0.059	0.038	0.63	0.005	0.2	0.8	0.5	1.63	4.55	2.81	0.39
Maximum	6.58	5	3.94	6.07	0.21	0.8	3.9	2.2	3	12.3	5.57	0.983
Median i	5.65	3.69	3.49	5.12	0.076	0.444	3.27	1.71	2.42	10.5	5	0.787
Mean i	5.19	3.4	3.13	4.85	0.0788	0.425	3.09	1.62	2.39	10.2	4.88	0.765
MAD i	0.545	0.275	0.215	0.31	0.03	0.076	0.26	0.18	0.18	0.8	0.23	0.066
IQR i	1.1	0.625	0.458	0.583	0.057	0.153	0.563	0.348	0.403	1.67	0.46	0.127
Robust CV % i	14	13	10	8	56	26	13	15	12	12	7	12
Median f	5.68	3.73	3.55	5.19	0.0628	0.442	3.28	1.73	2.42	10.6	5	0.81
Mean f	5.67	3.66	3.52	5.2	0.071	0.413	3.26	1.73	2.41	10.5	4.98	0.805
MAD f	0.415	0.22	0.15	0.29	0.0238	0.073	0.165	0.11	0.18	0.65	0.22	0.05
IQR f	0.768	0.455	0.305	0.55	0.06	0.147	0.278	0.245	0.38	1.25	0.44	0.113
Robust CV % f	10	9	6	8	71	25	6	10	12	9	7	10
Outliers	4	5	7	5	2	3	4	4	1	2	3	4
Stragglers	1	3	3	2	1	0	4	5	0	2	0	5

2018: Electrical conductivity 1:5 soil-water (3A1) dS/m

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	44	44	44	43	45	45	45	45	43	43	43	43
Minimum	0.132	0.085	0.014	0.167	0.00036	0.00174	0.00128	0.00236	0.0238	0.141	0.102	0.092
Maximum	201	180	148	260	15	170	120	240	130	210	180	139
Median i	0.161	0.177	0.133	0.218	0.015	0.16	0.109	0.224	0.121	0.208	0.17	0.131
Mean i	4.74	8.33	3.49	6.27	0.627	3.93	2.77	5.55	5.39	9.12	7.72	5.75
MAD i	0.0105	0.0115	0.007	0.016	0.002	0.006	0.006	0.007	0.007	0.014	0.01	0.007
IQR i	0.0255	0.0228	0.0145	0.0295	0.0047	0.011	0.009	0.014	0.0135	0.028	0.021	0.0125
Robust CV % i	12	10	8	10	23	5	6	5	8	10	9	7
Median f	0.16	0.176	0.132	0.216	0.0141	0.16	0.109	0.224	0.121	0.21	0.169	0.131
Mean f	0.16	0.178	0.133	0.217	0.0144	0.16	0.109	0.224	0.12	0.21	0.17	0.131
MAD f	0.01	0.01	0.006	0.014	0.00105	0.003	0.003	0.005	0.005	0.0095	0.006	0.005
IQR f	0.0195	0.017	0.012	0.026	0.00225	0.00525	0.005	0.0103	0.01	0.0168	0.0115	0.00875
Robust CV % f	9	7	7	9	12	2	3	3	6	6	5	5
Outliers	5	6	7	2	8	10	4	6	7	4	7	5
Stragglers	1	2	1	3	8	8	9	3	2	5	8	3

2018: Soil pH, 1:5 soil-water (4A1 + 4A3)

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	46	45	45	45	45	45	45	45	45	45	45	45
Minimum	6.27	6.25	6.68	6.43	5.12	7.02	5.91	4.82	5.3	5.28	7.03	4.9
Maximum	7.7	7.2	8.02	8.91	8.89	7.86	7.7	5.39	6.58	7.32	8.46	6.3
Median i	7.18	6.66	7.31	8.3	5.59	7.5	7.22	5	5.79	5.71	8.14	5.73
Mean i	7.17	6.69	7.29	8.24	5.76	7.5	7.22	5.02	5.82	5.77	8.05	5.71
MAD i	0.08	0.06	0.1	0.1	0.15	0.09	0.09	0.06	0.07	0.06	0.13	0.08
IQR i	0.168	0.13	0.2	0.19	0.32	0.16	0.16	0.13	0.13	0.11	0.3	0.16
Robust CV % i	2	1	2	2	4	2	2	2	2	1	3	2
Median f	7.18	6.65	7.31	8.33	5.57	7.52	7.22	5	5.79	5.7	8.16	5.73
Mean f	7.18	6.65	7.3	8.33	5.58	7.52	7.23	5	5.78	5.7	8.13	5.73
MAD f	0.07	0.05	0.09	0.05	0.105	0.07	0.06	0.05	0.06	0.04	0.085	0.055
IQR f	0.12	0.0925	0.155	0.115	0.208	0.125	0.135	0.1	0.115	0.085	0.2	0.0925
Robust CV % f	1	1	2	1	3	1	1	1	1	1	2	1
Outliers	8	9	3	9	5	4	7	4	10	8	4	7
Stragglers	1	6	4	3	4	3	4	2	2	4	5	3

2018: pH CaCl2 - Pooled (4B1 + 4B2 + 4B3 +4B4) pH Units

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	38	38	38	38	34	34	34	34	34	34	34	34
Minimum	6.02	5.85	6.09	6.29	4.5	5.94	5.15	4.29	4.83	4.63	6.49	4.81
Maximum	6.88	6.68	6.71	8	7.6	7.45	7.45	5	5.33	5.1	7.45	5.4
Median i	6.62	5.99	6.28	7.65	4.95	7.1	6.1	4.49	5.04	4.93	7.2	5.01
Mean i	6.6	6.02	6.29	7.57	5.08	7.05	6.13	4.51	5.05	4.92	7.17	5.04
MAD i	0.065	0.04	0.06	0.085	0.115	0.105	0.07	0.055	0.045	0.04	0.095	0.065
IQR i	0.108	0.0825	0.113	0.198	0.238	0.205	0.148	0.1	0.095	0.0975	0.168	0.118
Robust CV % i	1	1	1	2	4	2	2	2	1	1	2	2
Median f	6.62	5.98	6.27	7.67	4.91	7.1	6.1	4.49	5.04	4.92	7.21	5
Mean f	6.62	5.97	6.26	7.66	4.92	7.08	6.09	4.48	5.04	4.93	7.21	5.02
MAD f	0.04	0.025	0.04	0.07	0.09	0.1	0.045	0.04	0.03	0.02	0.07	0.03
IQR f	0.095	0.05	0.095	0.13	0.155	0.195	0.0725	0.06	0.06	0.05	0.153	0.09
Robust CV % f	1	1	1	1	2	2	1	1	1	1	2	1
Outliers	4	7	3	4	6	2	3	4	6	3	2	4
Stragglers	3	3	4	3	2	0	3	1	4	7	2	5

2018: Water Ext Cl - Pooled (5A1 + 5A2 + 5A3) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	30	30	30	30	27	32	32	32	31	31	31	31
Minimum	3.85	1.77	18.7	2.21	0.5	14.5	10.2	38	43.5	2.86	2.3	19.2
Maximum	39.4	60	86.7	620	83.7	97	116	118	108	162	109	80
Median i	14.8	10.4	35	9	4.51	22.2	22.6	46.4	57.1	30	26.1	30
Mean i	16	14	36.9	30.6	9.06	27.2	29.9	51.6	60.5	33.6	31.2	33.2
MAD i	2.8	3.75	5.05	2.38	2.27	4.2	6.6	4.3	4.1	9.2	4.7	5
IQR i	5.4	11	9.5	4.49	4.31	9.38	14.3	8.13	8.9	18.6	8.65	10.8
Robust CV % i	27	79	20	37	71	31	47	13	12	46	25	27
Median f	14.3	10.2	33	8.7	3.54	20.4	19	45.9	55.6	27.3	24	30
Mean f	14.6	11.3	33.4	8.24	3.97	21.1	21.2	46.5	55.8	29.3	24.4	30.9
MAD f	2.5	3.59	5.6	1.95	1.53	2.9	4.7	3.8	3.6	9.4	4	5
IQR f	4.7	7.33	9.25	2.9	2.37	5.75	10.8	7.15	6.68	18	7.75	9
Robust CV % f	24	54	21	25	50	21	42	12	9	49	24	22
Outliers	4	2	2	5	4	4	4	3	4	1	8	2
Stragglers	0	0	1	0	2	2	1	1	1	0	0	0

2018: Organic Carbon — W&B (6A1) %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	23	22	23	22	22	22	22	22	21	21	21	21
Minimum	0.0018	2.59	0.012	0.05	0.038	0.58	0.65	1.67	2.24	0.78	0.591	1.23
Maximum	2.79	4	1.95	1.93	0.379	1.09	1.07	2.64	6.31	16.7	1.79	12.2
Median i	2.18	2.93	0.96	0.675	0.105	0.702	0.775	2.17	2.7	12.8	0.728	1.55
Mean i	2.12	2.96	0.954	0.733	0.134	0.727	0.801	2.2	2.93	12	0.844	2.14
MAD i	0.16	0.2	0.1	0.065	0.0202	0.0515	0.055	0.105	0.11	1	0.068	0.15
IQR i	0.295	0.32	0.18	0.156	0.0478	0.102	0.122	0.228	0.3	1.8	0.214	0.36
Robust CV % i	10	8	14	17	34	11	12	8	8	10	22	17
Median f	2.17	2.84	0.96	0.648	0.0985	0.692	0.755	2.15	2.64	12.8	0.708	1.5
Mean f	2.16	2.87	0.963	0.659	0.102	0.685	0.759	2.18	2.65	13	0.707	1.52
MAD f	0.12	0.155	0.09	0.045	0.0115	0.035	0.0355	0.08	0.02	0.6	0.0475	0.12
IQR f	0.253	0.305	0.16	0.0915	0.0225	0.0723	0.0678	0.195	0.06	1.4	0.0763	0.19
Robust CV % f	9	8	12	10	17	8	7	7	2	8	8	9
Outliers	3	5	5	4	4	1	2	6	5	4	5	2
Stragglers	1	0	0	4	3	3	3	0	7	3	0	2

2018: Total Carbon — Dumas (6B2) %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	26	26	26	26	26	26	26	26	25	25	25	25
Minimum	2.16	2.85	0.664	0.353	0.01	0.429	0.704	2.42	2.88	11.7	0.152	1.2
Maximum	2.8	3.72	1.22	1.01	0.217	0.793	1.08	2.9	3.35	16.6	0.89	2.02
Median i	2.59	3.39	1.13	0.905	0.134	0.71	0.932	2.58	3.03	15.5	0.79	1.63
Mean i	2.53	3.38	1.1	0.874	0.137	0.701	0.936	2.6	3.05	15.2	0.766	1.63
MAD i	0.09	0.075	0.04	0.0385	0.018	0.033	0.0335	0.055	0.08	0.6	0.034	0.04
IQR i	0.233	0.145	0.075	0.0775	0.0345	0.0638	0.0765	0.118	0.14	1.2	0.064	0.08
Robust CV % i	7	3	5	6	19	7	6	3	3	6	6	4
Median f	2.62	3.39	1.13	0.91	0.129	0.71	0.931	2.58	3.02	15.5	0.794	1.63
Mean f	2.6	3.38	1.14	0.906	0.128	0.712	0.929	2.57	3.04	15.4	0.799	1.63
MAD f	0.07	0.075	0.03	0.02	0.012	0.032	0.0305	0.04	0.07	0.6	0.028	0.04
IQR f	0.14	0.135	0.05	0.055	0.0243	0.062	0.061	0.06	0.14	1.15	0.0665	0.06
Robust CV % f	4	3	3	4	14	6	5	2	3	5	6	3
Outliers	5	2	4	2	5	1	3	3	1	1	2	3
Stragglers	0	0	0	3	1	0	1	2	0	0	0	1

2018: Total Organic Carbon - Pooled (6B1 + 6B3 + 6B5) %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	20	20	20	20	16	19	19	19	16	16	16	16
Minimum	1.63	2.26	0.77	0.505	0.07	0.63	0.77	2.08	2.6	5.85	0.6	1.52
Maximum	2.7	3.54	1.21	0.92	0.198	0.9	1.04	2.69	3.37	16.5	7.54	1.73
Median i	2.5	3.41	1.1	0.795	0.125	0.71	0.914	2.53	3.02	14.7	0.775	1.6
Mean i	2.44	3.27	1.09	0.779	0.127	0.724	0.916	2.49	3.04	14.3	1.18	1.6
MAD i	0.125	0.11	0.045	0.05	0.0135	0.029	0.034	0.06	0.05	0.9	0.0375	0.02
IQR i	0.233	0.305	0.075	0.0883	0.022	0.0715	0.0625	0.165	0.175	1.8	0.072	0.035
Robust CV % i	7	7	5	8	13	7	5	5	4	9	7	2
Median f	2.56	3.46	1.12	0.8	0.125	0.69	0.914	2.55	2.99	14.7	0.775	1.6
Mean f	2.54	3.43	1.13	0.811	0.125	0.695	0.919	2.54	3.03	14.9	0.768	1.61
MAD f	0.08	0.06	0.03	0.04	0.007	0.027	0.021	0.04	0.06	0.8	0.03	0.01
IQR f	0.15	0.115	0.07	0.075	0.0145	0.0425	0.04	0.085	0.09	1.75	0.0538	0.02
Robust CV % f	4	2	5	7	9	5	3	2	2	9	5	1
Outliers	3	2	3	1	2	2	2	2	2	1	2	3
Stragglers	0	3	0	2	2	2	2	1	1	0	0	3

2018: Total N — Pooled (7A1 + 7A2) %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	8	8	8	8	9	10	10	10	11	11	11	11
Minimum	0.012	0.019	0.078	0.064	0.00181	0.0103	0.029	0.0642	0.157	0.37	0.066	0.105
Maximum	0.222	0.335	0.55	0.41	0.042	0.07	0.13	0.242	0.201	1.36	0.104	0.141
Median i	0.205	0.31	0.099	0.0777	0.006	0.0305	0.078	0.186	0.178	1.15	0.08	0.13
Mean i	0.18	0.277	0.155	0.119	0.0117	0.0353	0.0784	0.183	0.177	1.11	0.0815	0.125
MAD i	0.0055	0.0055	0.00685	0.0075	0.004	0.009	0.0152	0.012	0.012	0.14	0.008	0.011
IQR i	0.015	0.00125	0.0152	0.0143	0.0112	0.0132	0.0263	0.0263	0.0225	0.225	0.0125	0.0205
Robust CV % i	5	0	11	14	138	32	25	10	9	15	12	12
Median f	0.208	0.31	0.096	0.0774	0.00323	0.0291	0.078	0.186	0.178	1.21	0.0795	0.13
Mean f	0.209	0.313	0.0941	0.0775	0.00438	0.0281	0.0781	0.191	0.177	1.19	0.0793	0.125
MAD f	0.0035	0.0055	0.00635	0.0054	0.00132	0.0044	0.0097	0.0085	0.012	0.12	0.0035	0.011
IQR f	0.00625	0.001	0.00953	0.00945	0.00321	0.00675	0.0181	0.0208	0.0225	0.215	0.00725	0.0205
Robust CV % f	2	0	7	9	74	17	17	8	9	13	7	12
Outliers	3	3	1	1	2	1	0	3	0	1	1	0
Stragglers	1	0	1	1	2	2	2	0	0	0	3	0

2018: Total N – Dumas (7A5) %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	33	33	33	33	31	32	32	32	33	33	33	33
Minimum	0.172	0.247	0.0308	0.031	0.000666	0.017	0.053	0.136	0.06	0.06	0.07	0.121
Maximum	0.235	0.353	0.178	0.11	0.06	0.115	0.178	0.235	0.228	1.42	0.133	0.22
Median i	0.213	0.326	0.095	0.0796	0.00874	0.038	0.09	0.21	0.188	1.25	0.0829	0.137
Mean i	0.212	0.319	0.0964	0.079	0.0124	0.042	0.0926	0.206	0.187	1.19	0.0863	0.141
MAD i	0.008	0.01	0.004	0.0047	0.00574	0.005	0.0064	0.01	0.005	0.06	0.0071	0.008
IQR i	0.015	0.025	0.007	0.0102	0.0122	0.00913	0.0118	0.019	0.01	0.1	0.0125	0.015
Robust CV % i	5	6	5	9	103	18	10	7	4	6	11	8
Median f	0.214	0.329	0.0946	0.0793	0.006	0.0377	0.09	0.21	0.188	1.26	0.0815	0.135
Mean f	0.215	0.325	0.0951	0.0789	0.00706	0.0378	0.0916	0.208	0.189	1.26	0.0834	0.135
MAD f	0.0075	0.01	0.0014	0.00365	0.003	0.00375	0.0054	0.01	0.003	0.05	0.0045	0.007
IQR f	0.0143	0.017	0.00315	0.0072	0.007	0.00643	0.0102	0.0185	0.007	0.1	0.012	0.0133
Robust CV % f	5	4	2	7	86	13	8	7	3	6	11	7
Outliers	3	3	7	5	4	6	4	1	6	2	2	3
Stragglers	0	1	4	3	3	1	0	0	2	0	1	0

2018: Water Soluble Nitrate N— Pooled (7B1 +7B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	16	16	16	16	16	16	16	16	16	15	16	16
Minimum	1.1	0.1	3.3	3.4	0.3	5.65	5.9	9	6.62	0.1	4.28	13
Maximum	11.4	6	27.3	26.3	11.9	22.5	24	84.5	16	8.3	17.1	41
Median i	4.92	0.604	14.7	7.83	0.532	8.92	10.5	70	9.15	1.84	7.05	34.4
Mean i	4.75	1.4	14.7	8.62	1.38	9.47	11.6	64.4	9.4	2.49	8.04	32.9
MAD i	1.37	0.261	1.5	0.87	0.207	0.89	1.65	5.1	1.1	0.66	1	3.5
IQR i	2.27	1.09	2.38	1.87	0.552	1.42	3.03	9.85	2.27	1.52	2.1	6.15
Robust CV % i	34	133	12	18	77	12	21	10	18	61	22	13
Median f	4.93	0.485	14.6	7.83	0.379	8.84	10.4	73.8	8.76	1.38	6.82	35.6
Mean f	4.73	0.469	14.6	7.91	0.418	8.5	10.3	72.9	8.77	1.41	6.85	35.2
MAD f	1.24	0.115	0.6	0.6	0.065	0.34	1.45	5	1.05	0.775	0.75	2.55
IQR f	1.7	0.19	1.2	1.02	0.149	1.06	2.5	8	1.99	1.44	1.23	4.78
Robust CV % f	26	29	6	10	29	9	18	8	17	77	13	10
Outliers	1	4	2	4	3	2	2	2	1	3	3	2
Stragglers	2	4	4	2	4	3	0	1	1	0	1	0

2018: KCl Extractable Nitrate N — autocolour (7C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	24	24	24	24	24	25	25	25	26	26	26	26
Minimum	1.6	0.5	12.9	6.49	0.2	7.11	8.1	12.9	7.4	1.3	5.22	30.4
Maximum	6.13	2.51	20.4	9.48	2.52	11.7	13.7	86	11	3	10	41
Median i	4.36	1.15	15.1	8.1	0.48	9	11	71	9.17	1.72	6.58	34.2
Mean i	4.36	1.23	15.5	8.09	0.651	9.03	10.8	69.8	9.05	1.83	6.69	34.7
MAD i	0.705	0.255	0.8	0.29	0.2	0.48	1	2.9	0.35	0.23	0.31	1.7
IQR i	1.44	0.529	1.45	0.56	0.288	0.81	1.9	4.9	0.835	0.45	0.65	2.6
Robust CV % i	24	34	7	5	44	7	13	5	7	19	7	6
Median f	4.4	1.06	15	8.13	0.4	9	11	71	9.2	1.7	6.56	34
Mean f	4.48	1.1	15.1	8.16	0.396	8.99	10.8	71.7	9.07	1.7	6.54	34.5
MAD f	0.7	0.19	0.8	0.26	0.112	0.42	1	2.3	0.26	0.2	0.26	1.6
IQR f	1.27	0.353	1.18	0.5	0.225	0.765	1.9	4.2	0.79	0.36	0.56	2.6
Robust CV % f	21	25	6	5	42	6	13	4	6	16	6	6
Outliers	1	2	2	5	4	2	0	3	4	3	3	1
Stragglers	0	1	0	1	1	0	0	1	1	0	1	0

2018: KCl Ext. Ammonium N — autocolour (7C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	31	31	31	31	32	32	32	32	31	31	31	31
Minimum	1.78	26.7	1.72	1.51	0.01	0.47	1.65	3.25	9.25	48.7	1.3	7.43
Maximum	145	208	17	23.4	23.8	26	33.1	34.2	63.9	410	13.3	33
Median i	22.9	147	9.94	17.6	1.77	4.71	11.6	13.4	45	296	8.81	22.7
Mean i	25.7	145	10.1	17.4	2.56	5.25	11.9	13.7	44.1	286	8.48	22.5
MAD i	1.6	9	0.84	1.4	0.4	0.645	0.95	1.45	3	22	1.21	1.3
IQR i	3.15	16.5	1.83	2.85	0.87	1.29	1.63	2.95	5.55	54.5	2.45	2.2
Robust CV % i	10	8	14	12	36	20	10	16	9	14	21	7
Median f	23	147	9.84	17.6	1.67	4.73	11.6	13.4	45	301	9.01	22.7
Mean f	22.7	145	9.82	18	1.74	4.84	11.5	13.5	45.3	309	8.89	22.8
MAD f	1.25	5	0.645	0.6	0.33	0.395	0.7	1.4	2.4	17	1.19	0.8
IQR f	2.28	11.5	1.05	2.15	0.6	0.713	1.4	2.6	4.15	48	2.16	1.5
Robust CV % f	7	6	8	9	27	11	9	14	7	12	18	5
Outliers	6	6	5	5	6	5	5	5	4	7	4	5
Stragglers	1	1	2	3	1	5	0	0	0	0	0	3

2018: Total P - Pooled %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	24	24	24	24	24	27	27	26	24	24	24	24
Minimum	0.024	0.0555	0.00933	0.0112	6.7E-06	0.008	0.01	0.024	0.00076	0.15	0.005	0.01
Maximum	0.475	0.888	0.18	0.233	0.0187	0.0405	0.0226	0.0397	0.073	1.99	0.165	0.0262
Median i	0.0463	0.0839	0.0175	0.021	0.00045	0.0111	0.0172	0.0319	0.0101	0.196	0.0182	0.0191
Mean i	0.0619	0.116	0.0239	0.03	0.00151	0.0122	0.017	0.0319	0.0126	0.272	0.024	0.0188
MAD i	0.00485	0.00785	0.0018	0.0028	0.00025	0.0009	0.0014	0.00245	0.00183	0.0155	0.00225	0.0009
IQR i	0.00905	0.0159	0.00373	0.0055	0.00077	0.0017	0.00285	0.0044	0.003	0.028	0.00443	0.0021
Robust CV % i	15	14	16	19	128	11	12	10	22	11	18	8
Median f	0.0465	0.0839	0.0175	0.021	0.00031	0.0109	0.0173	0.0319	0.0101	0.196	0.017	0.0193
Mean f	0.0455	0.0835	0.0175	0.0216	3.5E-04	0.0108	0.0173	0.032	0.0104	0.2	0.0178	0.0192
MAD f	0.0032	0.0077	0.00165	0.0025	0.00011	0.00075	0.0011	0.0021	0.00115	0.0055	0.00225	0.00075
IQR f	0.0078	0.0149	0.0033	0.005	0.00029	0.0015	0.00213	0.0042	0.00275	0.0128	0.00405	0.00155
Robust CV % f	12	13	14	18	70	10	9	10	20	5	18	6
Outliers	3	2	2	2	5	4	2	0	5	2	4	4
Stragglers	2	0	0	0	2	1	1	2	2	8	1	1

2018: Colwell Extractable P — Pooled (9B1 + 9B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	31	31	31	31	30	32	32	32	31	32	32	32
Minimum	33.5	13.2	14	15.7	0.075	11	11.4	28	1.38	12	9.85	17.6
Maximum	98.8	81.3	32.4	44.2	29	52.2	42.8	95	15.1	172	32.1	39.7
Median i	45.7	47.3	19	21.4	1.73	25.5	22.6	50	7.5	59.3	22	29.3
Mean i	48	47.9	19.8	22.8	3.9	26.3	22.6	49.9	7.71	58.9	22.1	29.4
MAD i	3.3	3.2	2.4	2.6	1.24	2.9	1.45	4.35	0.84	7.4	2.05	3.45
IQR i	5.6	6.2	4.55	5.1	3.02	6.18	3.6	9.6	1.65	15.1	3.73	5.4
Robust CV % i	9	10	18	18	130	18	12	14	16	19	13	14
Median f	45.4	47.3	18.7	21.1	0.835	25.5	22.3	50	7.5	61	22	29.3
Mean f	45.7	47.8	18.8	20.9	1.21	25.9	21.7	49.7	7.55	58.8	22.1	29.8
MAD f	2.7	2.7	2.35	2.1	0.605	2.5	1.35	3.3	0.5	5.4	1.5	3.2
IQR f	5.15	5.6	4.2	4.25	1.26	4.9	3.45	7.75	0.89	11	3.1	5
Robust CV % f	8	9	17	15	112	14	11	11	9	13	10	13
Outliers	2	4	2	3	6	4	4	3	8	5	5	1
Stragglers	3	0	1	1	2	0	0	2	2	2	1	0

2018: Olsen Extractable P — Pooled (9C1 + 9C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	23	23	22	22	26	29	29	29	25	26	26	26
Minimum	13.8	9.83	6	7.1	0.02	8.29	6.6	8.2	1.01	5.9	3.7	8
Maximum	31	31	16	31	2.9	16.1	16.2	35.7	11	29	14.3	30
Median i	17.3	14	7.82	9.9	0.588	10.4	8.71	20.6	2.8	12.2	9.62	14.5
Mean i	18	14.8	8.32	10.7	0.841	11.1	9.36	20.7	3.25	12.8	9.7	14.9
MAD i	1.2	1.1	0.535	0.6	0.395	0.94	1.12	1.7	0.42	1.6	0.98	1.35
IQR i	2.2	2.3	0.973	1.05	0.77	3.13	2.18	3.5	0.85	3.08	2	2.4
Robust CV % i	9	12	9	8	97	22	19	13	23	19	15	12
Median f	17.3	14	7.7	9.9	0.575	10.1	8.61	20.6	2.76	11.8	9.62	14.5
Mean f	17.4	14.2	7.71	10	0.759	10.2	8.68	20.6	2.79	11.9	9.81	14.5
MAD f	1.1	1	0.4	0.6	0.385	0.62	0.51	1.6	0.24	1.2	0.67	0.8
IQR f	1.88	2.05	0.805	0.93	0.74	1.21	0.88	3.3	0.47	2.28	1.41	1.55
Robust CV % f	8	11	8	7	95	9	8	12	13	14	11	8
Outliers	2	2	4	4	1	6	2	4	7	4	7	5
Stragglers	2	1	2	0	0	1	2	0	4	2	2	5

2018: Bray-1 Extractable P — Pooled (9E1 + 9E2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	8	11	11	11	10	10	10	11
Minimum	8	7.7	9.28	6.15	0.357	1	6.6	7.93	1.31	1.3	9.97	8.51
Maximum	28.2	45.3	17.8	44.1	11.2	77.6	42.9	84	8.11	43.3	22.2	39.8
Median i	15	13	12	10.4	0.813	21.8	11.6	17.9	3.6	2.86	13.7	28.6
Mean i	15.5	15.9	12.6	15	3	24.9	14.3	22.2	3.74	8.95	14.2	28
MAD i	1.8	1.1	1.3	2.7	0.245	5.3	1	6.1	0.43	0.75	1.35	1.5
IQR i	3.4	2.9	2.4	4.6	2.18	8.4	2.5	8.85	0.708	1.33	2.45	3.2
Robust CV % i	17	17	15	33	199	29	16	37	15	35	13	8
Median f	14.8	13	12	10	0.77	20.6	11.5	17.4	3.6	2.64	13.3	28.6
Mean f	14.3	13.2	11.6	9.76	0.71	19.7	11.6	16.1	3.65	2.53	13.3	28.8
MAD f	1.05	0.9	1.1	2.3	0.156	4.5	0.8	4.4	0.2	0.65	1.3	1.4
IQR f	2.75	1.63	2.3	4	0.257	7.43	1.35	8.38	0.255	1.02	2.2	2.2
Robust CV % f	14	9	14	30	25	27	9	36	5	29	12	6
Outliers	2	3	3	2	2	1	2	1	2	2	1	4
Stragglers	1	0	0	0	0	0	1	0	1	0	0	0

2018: Acid Extractable P — Pooled (9G1 + 9G2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	13	13	13	13	13	13	13	13
Minimum	28	69	15.2	39.3	0.76	34	20.4	32	1.49	12.3	24.9	33.5
Maximum	323	229	253	341	41.2	95	139	292	53	151	48	45
Median i	43.8	97.2	26.1	53.2	3.5	45	26.4	46.5	6.6	101	32	41.9
Mean i	63.1	103	43.6	74.2	6.99	49.3	38.6	71.7	9.89	95.8	32.2	40.8
MAD i	4.2	6.2	4.5	3	1.8	5.7	3.1	6.4	1.5	13.9	3.2	2.1
IQR i	7	10	5.6	5.5	3.02	7.3	6.4	12.3	2.51	23.9	5.8	3.2
Robust CV % i	12	8	16	8	64	12	18	20	28	18	13	6
Median f	44.3	98.5	25.7	53.2	2.09	43.4	26.1	46.2	6.39	101	31.6	42
Mean f	44	97	24.9	53.1	2.58	41.5	25.7	47.5	6.29	98.3	30.9	41.4
MAD f	3	6	1.8	2.8	1.21	2.9	1.6	5.8	1.4	10	2.9	1.8
IQR f	5.43	8.9	3.65	5.1	2.1	8.03	3.13	9.5	2.51	19.8	5.88	3.18
Robust CV % f	9	7	11	7	74	14	9	15	29	14	14	6
Outliers	1	2	1	2	3	2	3	2	1	1	1	1
Stragglers	2	1	1	0	0	1	0	0	0	1	0	0

2018: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	21	21	21	21	20	20	20	20	21	20	21	21
Minimum	129	164	54.6	103	10.3	57.3	47.1	48.6	88.5	585	87	15
Maximum	179	225	94.5	147	74	139	128	180	121	2530	109	42.2
Median i	143	176	66.9	114	15.7	71.4	63.2	109	93.7	1410	95.1	25
Mean i	143	179	68.9	117	21.8	83.1	68.2	113	95.2	1440	95.9	26.6
MAD i	5	7	4	5	2.7	9.45	4.3	6	3.7	210	2.2	3
IQR i	9	13	8.5	12	7.6	24.9	6.7	14	5.5	428	5	5.1
Robust CV % i	5	5	9	8	36	26	8	10	4	22	4	15
Median f	140	173	66.2	114	14	67.9	61	109	93	1390	95.1	25
Mean f	141	174	66.9	114	14.2	67.9	61.2	110	93	1370	95.2	25.9
MAD f	6	4.5	4	5	1.35	2.9	3	3	2.9	190	2	1.6
IQR f	10	8.75	8	9.5	2.85	5.8	5.25	5.25	5.2	360	3.75	3.08
Robust CV % f	5	4	9	6	15	6	6	4	4	19	3	9
Outliers	2	2	2	2	3	3	4	4	2	3	3	2
Stragglers	0	1	0	0	3	4	1	2	0	0	0	3

2018: Phosphorus buffer index - Unadj (9I4a + 9I4b + 9I4c) L/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	12	12	12	12	13	13	13	13	13	13	13	13
Minimum	116	149	32.1	97.2	10.2	50.8	46.4	43.6	47.1	2.54	48.9	10
Maximum	150	202	73	120	80.3	117	78.6	135	121	2490	98.2	78.3
Median i	133	163	63.2	110	16.4	67.8	58.6	99.7	90.5	1290	90.3	21
Mean i	133	167	61.1	110	20.8	71.4	60.2	98.8	90	1260	87.6	24.6
MAD i	6	4	4.3	7	3.6	8.1	3	3.3	2.9	160	3.7	2.9
IQR i	8.75	9	8.3	12	8	15.9	5.2	5	5.4	499	6.5	6.6
Robust CV % i	5	4	10	8	36	17	7	4	4	29	5	23
Median f	133	161	63.4	110	16.4	66.4	58	99.6	90.5	1310	91.2	20.6
Mean f	133	160	63.7	110	15.9	67.6	58.7	99.4	91.1	1270	90.9	20.1
MAD f	6	4	4	7	3.55	8.45	2.2	1.4	2.5	105	3.3	3.3
IQR f	8.75	6	8.35	12	5.55	16.1	4.68	2.18	5.05	160	6.38	6.18
Robust CV % f	5	3	10	8	25	18	6	2	4	9	5	22
Outliers	0	2	1	0	1	1	2	2	2	4	1	1
Stragglers	0	1	0	0	0	0	1	3	0	1	0	0

2018: Phosphate Extractable S – Pooled (10B1 + 10B2 + 10B3) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	8	8	8	8	6	6	6	6	7	7	7	5
Minimum	5.92	18.2	10.8	11	6.86	17.5	11.1	25.8	13	36	7.7	4.7
Maximum	28	55.1	20.9	23.4	9.06	31.9	24.8	59	41.9	112	25.5	20.4
Median i	19.7	38.9	15.9	15.2	8.52	26.6	14.7	39.2	27.8	87.8	14.1	10.3
Mean i	19.1	38.7	15.4	15.2	8.14	26.1	16.3	39.8	26.8	83.6	14.8	11
MAD i	5.15	6.45	2.9	3.15	0.5	1.35	2.3	4.95	2.8	14.2	0.3	0.86
IQR i	9.6	13.4	4.9	4.35	1.59	2.2	3.78	7.48	5.4	22.1	0.8	0.96
Robust CV % i	36	26	23	21	14	6	19	14	14	19	4	7
Median f	19.7	38.9	15.9	15.3	8.52	26.6	14.5	39.2	27.8	91.3	14.1	10.3
Mean f	19.1	38.7	15.4	15.2	8.14	26.9	14.6	38.5	26.5	91.6	14	10
MAD f	5.15	6.45	2.9	0.1	0.5	0.55	0.8	1.85	1.7	8.9	0.3	0.1
IQR f	9.6	13.4	4.9	0.2	1.59	1.2	1.2	2.63	3.3	15.1	0.4	0.48
Robust CV % f	36	26	23	1	14	3	6	5	9	12	2	3
Outliers	0	0	0	0	0	1	0	0	2	0	4	2
Stragglers	0	0	0	5	0	1	1	2	0	1	0	0

2018: KCl_{40} Extractable S (10D1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	16	16	16	16	19	19	19	19	17	17	17	17
Minimum	12.4	19.7	11.2	10.7	4.6	12	7.67	20.6	12.7	25.6	9.42	7.7
Maximum	23.6	48	19.4	15.2	8.37	32	13.4	30.7	20.7	46.7	16.3	13.9
Median i	18.8	37.8	12.8	12.2	5.92	27.8	11.2	26.5	18.8	40.1	11.3	9.7
Mean i	18.5	37.1	13.3	12.6	6.02	27.2	11.1	26.3	18.2	38.6	11.3	9.62
MAD i	1.5	2.35	0.65	0.8	0.45	1.8	0.7	1.7	1.2	4.3	1	0.5
IQR i	2.08	3.93	1.65	1.7	0.81	3.2	1	3.5	2.5	9	2	1.66
Robust CV % i	8	8	10	10	10	9	7	10	10	17	13	13
Median f	18.8	38	12.7	11.9	5.87	27.9	11.1	26.7	19	41	10.5	9.7
Mean f	18.9	38.1	12.6	11.9	5.9	28.1	11	26.6	18.8	40.2	10.7	9.46
MAD f	1.3	1.8	0.3	0.5	0.32	1.65	0.3	1.65	1	3.2	0.9	0.5
IQR f	2.4	2.8	0.5	0.925	0.56	3.03	0.725	3.1	2.1	6.05	1.64	1.5
Robust CV % f	9	5	3	6	7	8	5	9	8	11	12	11
Outliers	1	2	1	1	1	1	1	0	2	0	1	3
Stragglers	0	1	7	3	2	0	4	1	1	2	1	0

2018: DTPA Extractable Fe (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	26	26	26	26	27	27	27	27	28	28	28	28
Minimum	21	34.8	13	8.45	4.1	4.46	23.8	2.23	17.2	15.9	1.97	18
Maximum	54	113	35	29	54.1	104	39.6	799	151	182	22.5	111
Median i	31	72.9	20.3	13.5	5.89	39.1	32.4	440	98	111	12.8	29.7
Mean i	31.6	74.3	21.1	14.3	7.78	44.2	32	461	100	112	12.6	39.7
MAD i	2.95	8.65	2.35	2.25	1.31	10	3.6	58	11	8	1.5	8.75
IQR i	5.3	16.4	4.55	3.85	2.44	21.4	6.75	111	20	15	2.78	19.6
Robust CV % i	13	17	17	21	31	40	15	19	15	10	16	49
Median f	30.5	67.8	20.2	13.1	5.64	39	32.4	432	97.4	109	12.9	28.3
Mean f	30.6	68.8	20.4	13.2	5.83	40.4	32	448	96.4	108	12.8	28.3
MAD f	2.7	6.7	2.1	1.9	1.08	9	3.6	58	10.6	7	1.1	4.5
IQR f	4.35	12.4	4.1	3.65	2.1	18.6	6.75	98.5	18.7	13	2.1	7.4
Robust CV % f	11	14	15	21	28	35	15	17	14	9	12	19
Outliers	2	5	2	1	1	3	0	3	5	6	4	5
Stragglers	1	2	1	2	1	1	0	1	1	0	0	3

2018: DTPA Extractable Cu (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	26	26	26	26	24	26	27	27	28	27	28	27
Minimum	1.32	1.04	1.11	1.37	0.008	0.36	1.54	0.672	0.508	0.169	1.4	0.146
Maximum	2.22	2.2	2.1	2.75	1.74	1.19	2.89	4.41	1.65	0.832	2.4	0.657
Median i	1.79	1.66	1.52	1.9	0.02	0.446	2.02	0.849	1.34	0.5	1.83	0.441
Mean i	1.8	1.65	1.54	1.93	0.108	0.471	2.05	0.991	1.36	0.527	1.87	0.453
MAD i	0.105	0.12	0.115	0.115	0.0115	0.0235	0.14	0.067	0.14	0.08	0.135	0.041
IQR i	0.2	0.22	0.213	0.245	0.0278	0.0418	0.265	0.123	0.293	0.211	0.26	0.096
Robust CV % i	8	10	10	10	103	7	10	11	16	31	11	16
Median f	1.77	1.66	1.52	1.89	0.0166	0.441	2.02	0.84	1.36	0.5	1.82	0.44
Mean f	1.78	1.65	1.53	1.91	0.0205	0.438	2.03	0.851	1.4	0.509	1.85	0.444
MAD f	0.1	0.08	0.105	0.1	0.00605	0.011	0.13	0.064	0.14	0.07	0.12	0.035
IQR f	0.175	0.183	0.198	0.195	0.0178	0.0235	0.25	0.118	0.28	0.123	0.21	0.07
Robust CV % f	7	8	10	8	80	4	9	10	15	18	9	12
Outliers	3	2	2	3	4	3	2	2	1	2	1	4
Stragglers	0	2	0	0	2	6	0	0	0	2	2	0

2018: DTPA Extractable Mn (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	26	26	26	26	24	26	26	26	28	28	28	28
Minimum	128	235	126	44	0.001	3.11	121	9.81	12.7	21.9	53.8	24
Maximum	281	470	272	171	0.246	6.3	195	16.1	26.8	97.6	82.4	36.6
Median i	159	341	159	58.2	0.0714	4.56	154	13	18	56.6	66.2	29
Mean i	164	340	164	62.4	0.0846	4.58	154	12.9	18.1	58.5	66.5	29.3
MAD i	9	24.5	8.5	4.1	0.0266	0.48	11.5	0.65	0.85	10.3	4.5	1
IQR i	17.8	52.5	12.8	6.95	0.0543	0.918	22.5	1.3	1.58	21	9	1.95
Robust CV % i	8	11	6	9	56	15	11	7	6	27	10	5
Median f	159	344	158	58	0.0672	4.55	152	13	18	56.3	65.2	29
Mean f	158	345	158	57.1	0.0732	4.51	152	12.9	17.9	57.1	65.4	28.9
MAD f	7	5	2.5	3.1	0.023	0.46	13	0.6	0.55	9	3.8	0.8
IQR f	16	10	3.75	5	0.0469	0.85	23	0.975	1	17.9	7.5	1.5
Robust CV % f	7	2	2	6	52	14	11	6	4	24	9	4
Outliers	3	5	6	5	2	1	2	4	5	2	1	6
Stragglers	2	6	5	0	0	0	0	1	1	1	1	1

2018: DTPA Extractable Zn (12A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	26	26	25	26	24	26	26	27	27	28	27	28
Minimum	0.641	5.8	0.19	0.157	0.001	0.037	0.054	0.207	0.522	1.99	0.276	1.15
Maximum	1.08	11.3	10.6	0.76	0.677	0.97	1.04	7.78	0.85	3.47	1	1.82
Median i	0.833	9.61	0.3	0.343	0.0366	0.48	0.759	2.57	0.65	2.52	0.4	1.62
Mean i	0.837	9.38	0.727	0.352	0.0669	0.49	0.743	2.69	0.655	2.62	0.433	1.6
MAD i	0.05	0.535	0.047	0.0195	0.0174	0.0515	0.0665	0.21	0.05	0.22	0.039	0.095
IQR i	0.0943	0.925	0.09	0.031	0.0313	0.0953	0.134	0.415	0.0965	0.61	0.081	0.185
Robust CV % i	8	7	22	7	63	15	13	12	11	18	15	8
Median f	0.826	9.61	0.289	0.343	0.0313	0.474	0.759	2.57	0.646	2.48	0.4	1.63
Mean f	0.826	9.59	0.292	0.342	0.0322	0.463	0.759	2.55	0.636	2.44	0.398	1.62
MAD f	0.046	0.37	0.0245	0.007	0.0123	0.043	0.064	0.155	0.042	0.125	0.03	0.075
IQR f	0.077	0.73	0.0433	0.0118	0.0201	0.0758	0.126	0.285	0.0833	0.253	0.0565	0.135
Robust CV % f	7	6	11	3	48	12	12	8	10	8	10	6
Outliers	3	3	2	7	2	4	2	3	1	3	2	1
Stragglers	2	3	5	5	2	0	0	2	2	5	3	1

2018: CaCl2 Extractable B (12C1 + 12C2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	21	21	21	21	21	22	22	22	23	23	23	23
Minimum	0.25	0.02	0.34	0.22	0.001	0.073	0.49	0.299	0.338	0.41	0.78	0.302
Maximum	1.77	1.19	2.42	1.08	0.66	1.32	1.7	1.66	1.03	1.6	2.37	1.08
Median i	0.744	0.91	1.47	0.82	0.04	0.697	1.29	0.652	0.599	0.829	1.7	0.517
Mean i	0.757	0.862	1.4	0.747	0.111	0.694	1.25	0.707	0.599	0.836	1.68	0.551
MAD i	0.114	0.14	0.23	0.15	0.029	0.102	0.205	0.113	0.102	0.2	0.29	0.107
IQR i	0.228	0.258	0.37	0.251	0.081	0.194	0.428	0.215	0.201	0.381	0.58	0.203
Robust CV % i	23	21	19	23	150	21	25	24	25	34	25	29
Median f	0.76	0.911	1.47	0.864	0.029	0.697	1.29	0.628	0.597	0.825	1.71	0.495
Mean f	0.778	0.904	1.4	0.852	0.0315	0.694	1.29	0.618	0.579	0.801	1.81	0.505
MAD f	0.098	0.129	0.15	0.066	0.0133	0.097	0.19	0.106	0.104	0.181	0.2	0.095
IQR f	0.188	0.245	0.365	0.112	0.0302	0.188	0.33	0.206	0.186	0.385	0.573	0.201
Robust CV % f	18	20	18	10	77	20	19	24	23	35	25	30
Outliers	3	1	2	1	5	2	1	2	1	1	0	2
Stragglers	1	0	0	3	1	0	0	0	0	0	3	0

2018: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	22	22	22	22	21	22	22	22	22	22	22	22
Minimum	22	7.96	5.73	21	0.073	3.43	6.16	3.42	3.92	5.18	12	2.53
Maximum	33	12	8.28	36.8	0.37	4.48	8.05	4.51	7.3	10.5	23	3.8
Median i	27.2	9.91	7.5	30.4	0.114	4.01	7.37	3.9	5.09	7.79	15.1	3.23
Mean i	27.6	9.95	7.41	30	0.142	3.98	7.25	3.88	5.22	7.81	15.3	3.29
MAD i	1.3	0.345	0.24	1.5	0.017	0.19	0.28	0.14	0.2	0.455	0.4	0.15
IQR i	2.6	0.595	0.488	3	0.05	0.353	0.55	0.283	0.45	0.83	0.775	0.328
Robust CV % i	7	4	5	7	33	7	6	5	7	8	4	8
Median f	27.2	9.92	7.53	30.4	0.11	4.01	7.4	3.9	5.09	7.79	15.1	3.23
Mean f	27.7	10	7.54	30.4	0.106	3.98	7.4	3.87	5.18	7.84	15	3.31
MAD f	0.85	0.28	0.215	1.4	0.01	0.19	0.21	0.12	0.185	0.315	0.3	0.11
IQR f	1.83	0.55	0.405	2.15	0.0148	0.353	0.43	0.228	0.41	0.618	0.55	0.25
Robust CV % f	5	4	4	5	10	7	4	4	6	6	3	6
Outliers	2	3	2	2	4	0	2	1	2	3	5	2
Stragglers	2	0	0	1	3	0	1	1	0	1	3	2

2018: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	22	22	22	22	16	22	22	22	21	22	22	22
Minimum	0.148	0.86	0.63	0.72	0.001	0.1	0.83	0.28	0.1	0.52	0.896	0.5
Maximum	1.63	1.8	1.35	1.6	0.14	0.19	1.4	0.49	2.1	1.3	12.6	0.761
Median i	1.28	1.48	1.15	1.29	0.0108	0.14	1.1	0.426	0.13	0.69	1.3	0.638
Mean i	1.21	1.48	1.13	1.28	0.0206	0.142	1.09	0.416	0.227	0.706	1.79	0.628
MAD i	0.075	0.07	0.05	0.085	0.00357	0.018	0.055	0.0255	0.01	0.0465	0.075	0.035
IQR i	0.13	0.14	0.1	0.178	0.00775	0.0325	0.105	0.055	0.018	0.107	0.155	0.069
Robust CV % i	8	7	6	10	53	17	7	10	10	11	9	8
Median f	1.28	1.48	1.15	1.29	0.01	0.14	1.1	0.427	0.13	0.69	1.3	0.64
Mean f	1.28	1.5	1.15	1.29	0.0109	0.142	1.09	0.428	0.125	0.681	1.3	0.634
MAD f	0.07	0.07	0.045	0.085	0.00213	0.018	0.035	0.024	0.009	0.0395	0.035	0.03
IQR f	0.13	0.12	0.1	0.173	0.003	0.0325	0.08	0.0375	0.0203	0.0735	0.0675	0.056
Robust CV % f	8	6	6	10	22	17	5	7	12	8	4	6
Outliers	3	2	2	2	2	0	3	2	3	3	6	1
Stragglers	0	0	0	0	1	0	1	0	0	1	2	2

2018: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	22	22	22	22	18	23	23	23	22	22	22	22
Minimum	7.92	0.97	7.79	7.6	0.002	0.133	1.03	0.413	0.14	0.71	1.4	0.454
Maximum	11.2	1.46	10.9	11.1	6.15	0.905	7.5	2.72	3.3	1.8	18.6	0.837
Median i	8.54	1.09	8.48	8.45	0.0189	0.715	6.85	2.24	2.04	1.2	11.7	0.54
Mean i	8.71	1.11	8.62	8.61	0.381	0.694	6.55	2.19	2.04	1.21	11.4	0.578
MAD i	0.33	0.055	0.455	0.375	0.0072	0.062	0.21	0.06	0.125	0.09	0.55	0.0445
IQR i	0.558	0.11	0.805	0.7	0.0144	0.121	0.445	0.125	0.215	0.18	1.03	0.119
Robust CV % i	5	7	7	6	57	13	5	4	8	11	7	16
Median f	8.48	1.08	8.46	8.37	0.0179	0.72	6.85	2.23	2.02	1.2	11.8	0.53
Mean f	8.48	1.08	8.51	8.4	0.0178	0.731	6.8	2.24	2.05	1.22	11.7	0.531
MAD f	0.27	0.045	0.41	0.37	0.00435	0.059	0.205	0.055	0.11	0.08	0.5	0.03
IQR f	0.52	0.08	0.82	0.715	0.00803	0.116	0.428	0.11	0.195	0.15	0.9	0.064
Robust CV % f	5	5	7	6	33	12	5	4	7	9	6	9
Outliers	2	2	1	2	2	2	1	5	2	3	2	3
Stragglers	0	0	0	0	0	0	0	0	1	0	1	2

2018: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	21	21	22	22	16	18	22	22	21	22	22	20
Minimum	0.013	0.0322	1.09	0.77	0.001	0.01	0.95	0.03	0.2	0.15	1.89	0.01
Maximum	1	1.11	2.1	2.2	0.16	0.206	1.66	1.6	0.68	0.348	3.5	0.309
Median i	0.094	0.12	1.58	1.16	0.0109	0.0513	1.49	0.282	0.3	0.2	2.23	0.06
Mean i	0.187	0.314	1.59	1.23	0.0341	0.0634	1.46	0.337	0.324	0.218	2.33	0.0813
MAD i	0.029	0.043	0.06	0.07	0.00817	0.0127	0.1	0.0275	0.023	0.019	0.115	0.0118
IQR i	0.096	0.354	0.0875	0.125	0.033	0.0341	0.185	0.049	0.05	0.0593	0.238	0.0231
Robust CV % i	76	219	4	8	226	49	9	13	12	22	8	29
Median f	0.087	0.0955	1.58	1.14	0.01	0.047	1.49	0.281	0.3	0.2	2.22	0.059
Mean f	0.091	0.0998	1.56	1.14	0.00891	0.0484	1.49	0.282	0.311	0.204	2.22	0.0591
MAD f	0.013	0.00495	0.04	0.06	0.002	0.0124	0.1	0.01	0.02	0.016	0.06	0.0063
IQR f	0.026	0.00968	0.0875	0.12	0.00575	0.0172	0.19	0.0225	0.04	0.031	0.12	0.0114
Robust CV % f	22	8	4	8	43	27	9	6	10	11	4	14
Outliers	4	6	4	5	4	3	1	3	2	2	3	4
Stragglers	4	5	0	0	1	0	0	4	0	1	3	1

2018: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	18	18	18	18	16	16	16	16	17	17	17	17
Minimum	9.76	8.05	6.18	22.3	0.05	3.24	6.08	3.22	4.41	5.39	13.6	3
Maximum	30	12.9	9.35	37.8	0.349	4.34	8.16	4.59	5.42	8.01	17.4	3.7
Median i	27	9.9	7.34	29	0.112	3.97	7.25	3.84	5.02	6.35	14.9	3.24
Mean i	25.5	9.89	7.44	28.9	0.137	3.95	7.25	3.84	5.01	6.37	15	3.3
MAD i	0.75	0.25	0.115	1.95	0.0145	0.115	0.09	0.105	0.14	0.39	0.4	0.1
IQR i	1.9	0.45	0.193	3.68	0.0508	0.198	0.175	0.198	0.24	0.72	1	0.11
Robust CV % i	5	3	2	9	34	4	2	4	4	8	5	3
Median f	27.1	9.9	7.34	29	0.1	3.97	7.25	3.84	5.05	6.3	14.9	3.24
Mean f	27.1	9.86	7.33	28.7	0.102	3.97	7.25	3.83	5.07	6.27	14.9	3.28
MAD f	0.5	0.125	0.05	1.7	0.003	0.05	0.02	0.005	0.11	0.36	0.4	0.1
IQR f	1.1	0.255	0.08	3.23	0.013	0.0925	0.04	0.0175	0.22	0.555	0.85	0.0825
Robust CV % f	3	2	1	8	10	2	0	0	3	7	4	2
Outliers	8	6	9	3	5	2	7	4	3	2	4	5
Stragglers	1	2	2	2	2	7	3	8	1	1	0	0

2018: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	18	18	18	18	16	16	16	16	17	17	17	17
Minimum	0.92	1.21	1	1	0.00564	0.103	1.02	0.347	0.122	0.592	1.12	0.532
Maximum	1.37	1.6	1.24	1.38	0.023	0.231	1.8	0.793	1.65	1.13	2.02	1.07
Median i	1.25	1.45	1.12	1.27	0.0114	0.142	1.07	0.429	0.14	0.63	1.26	0.636
Mean i	1.25	1.44	1.12	1.26	0.013	0.143	1.12	0.451	0.255	0.696	1.3	0.67
MAD i	0.03	0.09	0.04	0.05	0.00185	0.007	0.025	0.0125	0.0281	0.029	0.06	0.023
IQR i	0.09	0.17	0.06	0.105	0.006	0.0145	0.07	0.0285	0.019	0.074	0.11	0.044
Robust CV % i	5	9	4	6	39	8	5	5	10	9	6	5
Median f	1.24	1.46	1.12	1.28	0.011	0.143	1.07	0.428	0.137	0.624	1.24	0.629
Mean f	1.24	1.45	1.12	1.28	0.0106	0.142	1.07	0.427	0.145	0.626	1.24	0.625
MAD f	0.02	0.08	0.03	0.05	0.001	0.0045	0.02	0.0115	0.0281	0.0095	0.05	0.0135
IQR f	0.03	0.14	0.06	0.1	0.0011	0.0085	0.03	0.0225	0.0145	0.0153	0.095	0.0265
Robust CV % f	2	7	4	6	7	4	2	4	8	2	6	3
Outliers	10	1	2	3	7	4	6	5	3	3	2	6
Stragglers	4	3	5	0	5	3	2	1	0	4	1	4

2018: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	18	18	18	18	16	16	16	16	17	17	17	17
Minimum	2.02	0.913	7.29	6.94	0.001	0.5	5.58	1.83	1.9	0.952	10.2	0.212
Maximum	8.55	1.31	8.99	8.79	0.0777	0.955	7.43	2.64	2.43	1.3	15.2	0.65
Median i	8.11	1.08	8.32	8.16	0.0179	0.618	6.48	2.21	2	1.11	11.4	0.51
Mean i	7.73	1.07	8.3	8.11	0.0235	0.645	6.49	2.22	2.02	1.11	11.5	0.519
MAD i	0.21	0.015	0.23	0.26	0.00335	0.0465	0.205	0.095	0.05	0.03	0.4	0.033
IQR i	0.353	0.0275	0.433	0.475	0.00638	0.087	0.418	0.19	0.07	0.06	0.9	0.065
Robust CV % i	3	2	4	4	26	10	5	6	3	4	6	9
Median f	8.13	1.08	8.37	8.16	0.0177	0.605	6.5	2.2	2	1.11	11.4	0.509
Mean f	8.14	1.08	8.36	8.16	0.0174	0.615	6.54	2.19	2	1.11	11.3	0.514
MAD f	0.11	0.01	0.22	0.125	0.0014	0.034	0.2	0.07	0.035	0.01	0.3	0.011
IQR f	0.193	0.0125	0.43	0.208	0.0023	0.081	0.29	0.115	0.055	0.02	0.7	0.024
Robust CV % f	2	1	4	2	10	10	3	4	2	1	5	3
Outliers	5	10	3	4	6	2	2	2	4	4	3	3
Stragglers	2	1	0	3	4	1	2	5	1	8	2	5

2018: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	18	18	18	18	16	16	16	16	17	17	17	17
Minimum	0.059	0.065	1.29	0.82	0.00269	0.011	0.855	0.175	0.1	0.11	1.21	0.038
Maximum	0.196	0.183	1.66	1.26	0.052	0.089	1.53	0.34	0.369	0.245	2.35	0.115
Median i	0.0969	0.107	1.56	1.11	0.0125	0.0501	1.45	0.285	0.31	0.194	2.2	0.058
Mean i	0.106	0.107	1.51	1.09	0.0183	0.0501	1.4	0.277	0.288	0.193	2.1	0.0651
MAD i	0.0119	0.0105	0.05	0.035	0.0035	0.0133	0.04	0.015	0.014	0.008	0.05	0.004
IQR i	0.0348	0.0185	0.175	0.0625	0.0162	0.0238	0.08	0.0288	0.028	0.014	0.16	0.015
Robust CV % i	27	13	8	4	96	35	4	7	7	5	5	19
Median f	0.089	0.107	1.57	1.12	0.011	0.05	1.46	0.285	0.31	0.194	2.23	0.057
Mean f	0.0937	0.107	1.58	1.12	0.0109	0.0479	1.47	0.287	0.31	0.192	2.22	0.0566
MAD f	0.011	0.008	0.03	0.015	0.001	0.009	0.025	0.009	0.005	0.007	0.03	0.002
IQR f	0.017	0.0155	0.06	0.035	0.002	0.0129	0.0475	0.0185	0.008	0.0135	0.05	0.003
Robust CV % f	14	11	3	2	13	19	2	5	2	5	2	4
Outliers	6	5	7	8	7	2	4	3	6	6	6	8
Stragglers	0	2	2	2	3	3	3	3	4	0	2	3

2018: Exchangeable Al — 1M KCl (15G1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	18	17	17	18	20	19	19	21	18	19	17	17
Minimum	0.001	0.001	0.001	0.001	0.008	0.001	0.001	0.012	0.001	0.14	0.001	0.001
Maximum	0.057	0.0784	0.048	0.0527	0.235	0.139	0.096	0.55	0.163	0.938	0.1	0.07
Median i	0.00957	0.008	0.0052	0.006	0.122	0.01	0.005	0.303	0.029	0.71	0.008	0.0132
Mean i	0.0143	0.0211	0.0119	0.0125	0.111	0.0218	0.0183	0.275	0.0361	0.702	0.0178	0.0202
MAD i	0.00457	0.006	0.0042	0.00407	0.039	0.009	0.004	0.101	0.00645	0.091	0.0055	0.007
IQR i	0.0137	0.0258	0.0127	0.0098	0.0742	0.0237	0.0133	0.237	0.0137	0.143	0.026	0.012
Robust CV % i	106	239	181	121	45	176	198	58	35	15	241	67
Median f	0.007	0.00648	0.005	0.005	0.122	0.005	0.00361	0.303	0.028	0.712	0.005	0.0132
Mean f	0.00651	0.00645	0.00509	0.00452	0.111	0.00619	0.00317	0.275	0.0274	0.733	0.00517	0.0142
MAD f	0.003	0.00233	0.0025	0.00258	0.039	0.004	0.00139	0.101	0.0054	0.085	0.003	0.0068
IQR f	0.005	0.00415	0.00328	0.00413	0.0742	0.008	0.00321	0.237	0.0104	0.143	0.00585	0.0102
Robust CV % f	53	48	49	61	45	119	66	58	28	15	87	58
Outliers	2	5	4	4	0	3	5	0	3	1	5	2
Stragglers	3	0	1	1	0	3	3	0	0	0	0	0

2018: Extractable Al – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	14	14	15	15	15	15	16	16	16	16
Minimum	728	782	603	604	282	152	341	401	275	1120	312	292
Maximum	1000	998	820	825	501	1560	796	922	1160	3210	1130	755
Median i	842	950	655	670	361	1200	614	673	828	2090	850	472
Mean i	850	929	673	693	363	1170	608	670	811	2110	808	478
MAD i	55	41.5	13	43	25	40	41	37	53.5	140	49	35
IQR i	103	58.3	23.5	83.3	40.5	95	63.5	71.5	103	265	104	58.8
Robust CV % i	9	5	3	9	8	6	8	8	9	9	9	9
Median f	842	960	652	670	361	1190	614	673	831	2090	862	472
Mean f	850	957	651	682	359	1190	614	671	831	2100	858	463
MAD f	55	16	11	38	18	30	21	32	7	125	32.5	9
IQR f	103	33.5	18.3	77	37	57.5	38	67	10.5	228	64	31.3
Robust CV % f	9	3	2	9	8	4	5	7	1	8	6	5
Outliers	0	1	4	0	1	3	2	2	4	2	3	3
Stragglers	0	2	0	1	1	0	0	0	5	0	1	3

2018: Extractable B – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	14	14	14	14	14	14	16	16	16	16
Minimum	0.63	0.33	0.96	0.94	0.01	0.081	0.787	0.028	0.073	0.199	0.756	0.09
Maximum	3.2	3.67	3.12	3.27	0.59	2.48	1.53	0.69	1.45	1.83	2.53	1.1
Median i	0.922	0.788	1.15	1.27	0.0645	0.729	1.07	0.295	0.324	0.489	2.1	0.243
Mean i	1.07	0.965	1.32	1.4	0.109	0.841	1.08	0.33	0.433	0.561	1.96	0.342
MAD i	0.143	0.147	0.12	0.105	0.038	0.14	0.155	0.101	0.125	0.111	0.17	0.094
IQR i	0.224	0.27	0.24	0.18	0.0885	0.246	0.285	0.211	0.359	0.194	0.328	0.258
Robust CV % i	18	25	15	11	102	25	20	53	82	29	12	79
Median f	0.9	0.785	1.14	1.26	0.0535	0.699	1.07	0.262	0.305	0.475	2.11	0.216
Mean f	0.91	0.757	1.18	1.26	0.0639	0.703	1.08	0.279	0.313	0.45	2.08	0.204
MAD f	0.13	0.129	0.1	0.07	0.0245	0.021	0.155	0.067	0.105	0.0895	0.13	0.028
IQR f	0.228	0.214	0.23	0.115	0.0465	0.0325	0.285	0.144	0.18	0.169	0.278	0.078
Robust CV % f	19	20	15	7	64	3	20	41	44	26	10	27
Outliers	1	1	1	1	1	2	0	1	1	1	1	2
Stragglers	0	0	0	2	1	5	0	1	2	1	1	3

2018: Extractable Ca – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	13	14	14	14	15	16	16	16
Minimum	1940	1180	559	2730	18.9	750	1120	666	28	759	1150	562
Maximum	5990	2320	1600	6440	54.8	1100	1750	948	1850	1820	4100	1370
Median i	5300	2030	1420	5800	24.8	860	1450	791	1080	1390	2930	757
Mean i	4760	1970	1310	5410	30.9	869	1440	785	1060	1380	2900	802
MAD i	180	90	40	270	4.9	30.5	75	34	40	75	125	24
IQR i	360	180	80	590	17.6	52.5	135	59.3	65	113	270	34.8
Robust CV % i	5	7	4	8	53	5	7	6	4	6	7	3
Median f	5360	2070	1430	5890	22.8	860	1450	784	1080	1390	2920	757
Mean f	5330	2100	1430	5890	23.3	860	1440	772	1080	1370	2940	759
MAD f	75	90	25	195	2.4	22	60	34	20	10	70	6
IQR f	145	170	45	343	4.4	35.5	125	53	40	50	160	14.3
Robust CV % f	2	6	2	4	14	3	6	5	3	3	4	1
Outliers	3	2	3	2	3	1	2	1	2	4	3	5
Stragglers	2	0	0	1	1	1	0	0	4	3	2	1

2018: Extractable Cu - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	14	14	14	15	15	14	17	17	17	17
Minimum	2.1	2.13	1.5	2.64	0.02	0.18	1.43	0.1	0.0506	0.27	1.55	0.1
Maximum	3.57	3.31	2.97	4.1	1.1	1.58	3.64	1.13	2.93	0.967	3.87	1.3
Median i	2.95	2.74	2.09	3.49	0.102	0.816	2.28	0.38	2.3	0.482	3.2	0.908
Mean i	2.99	2.73	2.1	3.54	0.208	0.855	2.31	0.408	2.12	0.507	3.07	0.823
MAD i	0.245	0.1	0.2	0.2	0.0508	0.219	0.21	0.112	0.18	0.086	0.34	0.116
IQR i	0.463	0.183	0.375	0.538	0.0891	0.391	0.395	0.173	0.35	0.17	0.66	0.186
Robust CV % i	12	5	13	11	65	36	13	34	11	26	15	15
Median f	2.97	2.74	2.08	3.51	0.06	0.815	2.3	0.373	2.32	0.475	3.47	0.926
Mean f	3.05	2.74	2.03	3.6	0.0776	0.804	2.34	0.353	2.27	0.454	3.33	0.946
MAD f	0.22	0.055	0.18	0.21	0.0343	0.197	0.17	0.101	0.14	0.085	0.23	0.0985
IQR f	0.45	0.0775	0.36	0.59	0.0693	0.372	0.29	0.159	0.215	0.154	0.508	0.176
Robust CV % f	11	2	13	12	86	34	9	32	7	24	11	14
Outliers	0	3	1	1	3	0	3	1	2	2	1	3
Stragglers	1	3	0	0	0	1	2	0	1	0	2	0

2018: Extractable Fe – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	14	14	15	15	15	15	17	17	17	17
Minimum	113	102	78.3	53.6	36.5	1830	62.6	322	36.7	88.2	74	69.4
Maximum	211	208	168	103	103	6890	216	739	340	42500	154	8310
Median i	149	159	102	79.9	52	2380	155	582	274	110	105	118
Mean i	150	159	106	79.6	54.2	2750	155	594	254	2610	105	607
MAD i	16	21.5	9.45	8.15	4.3	310	14	56	31	8	17.1	20.8
IQR i	29.5	39	16.2	13.4	8.4	570	24.5	98	76	14	22.1	45
Robust CV % i	15	18	12	12	12	18	12	12	21	9	16	28
Median f	144	159	99.1	79.9	50.4	2350	155	582	276	107	105	113
Mean f	145	159	98.4	79.8	49.6	2450	153	604	274	105	103	118
MAD f	15	21.5	5.95	2.7	4.5	245	11	43	26	7	4	19
IQR f	28	39	10.4	4.13	8.2	530	16.5	68	46.5	10	7.5	32.9
Robust CV % f	14	18	8	4	12	17	8	9	12	7	5	22
Outliers	1	0	1	0	1	1	3	1	1	3	0	2
Stragglers	0	0	3	4	1	0	0	1	1	2	6	0

2018: Extractable K – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	14	14	14	14	16	16	16	16
Minimum	167	336	178	193	2	18	142	46	6.31	61.7	359	148
Maximum	558	586	456	560	104	147	443	237	88.7	433	784	422
Median i	440	542	406	445	5.42	62.5	399	162	52.6	244	459	245
Mean i	416	524	387	425	12.7	64.4	382	155	52.7	242	471	242
MAD i	19	24	14	21	0.745	3.9	20.5	10.5	4.25	8.5	19	7
IQR i	51	43	24	40	1.6	7.13	38.8	24.8	8.25	16	37.3	22.3
Robust CV % i	9	6	4	7	22	8	7	11	12	5	6	7
Median f	446	546	417	451	5.42	62.7	401	164	52.6	245	460	249
Mean f	445	549	416	449	5.61	62.5	400	163	53.7	247	458	247
MAD f	10	21	19	22	0.52	3.1	19	4.5	1.95	6	12	5
IQR f	14	38.5	29.5	35.5	0.948	5.95	37	8.5	3.73	9.5	18.5	6.5
Robust CV % f	2	5	5	6	13	7	7	4	5	3	3	2
Outliers	4	2	2	3	4	2	1	2	2	3	4	6
Stragglers	2	0	0	0	0	1	0	2	2	1	2	0

2018: Extractable Mg – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	13	14	14	14	15	16	16	16
Minimum	416	85	402	485	2	65	508	164	2.12	70	511	30
Maximum	1120	147	1080	1130	10.5	144	974	361	280	167	16400	169
Median i	990	135	1000	1030	3.29	105	834	278	255	130	1420	70.4
Mean i	904	130	918	956	3.91	105	813	277	230	125	2300	76.2
MAD i	45	4	37	65	0.44	6	39.5	15	10	5.5	55	3.3
IQR i	88	6	57	106	0.78	11.6	74	25.3	15.5	7.75	95	7.28
Robust CV % i	7	3	4	8	18	8	7	7	5	4	5	8
Median f	1030	137	1020	1040	3.21	104	834	278	256	130	1430	69
Mean f	1010	136	1010	1030	3.17	103	825	277	255	129	1420	69.4
MAD f	25	2	53	30	0.225	4	28.5	2	3	4	30	1.7
IQR f	66.3	2	65	72.5	0.393	8.4	70	5	5	7	60	1.8
Robust CV % f	5	1	5	5	9	6	6	1	1	4	3	2
Outliers	3	2	2	2	2	2	1	2	3	3	5	5
Stragglers	0	2	0	0	3	1	1	4	3	0	0	2

2018: Extractable Mn – Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	14	14	14	15	15	15	17	17	17	17
Minimum	212	463	235	212	0.119	12	0.0831	4.3	0.12	31.7	142	12
Maximum	416	760	364	440	0.72	36.6	512	19.6	39.4	176	5410	68.8
Median i	293	575	330	396	0.325	27	353	14.9	18.8	78	243	32.3
Mean i	291	576	323	372	0.366	26.3	347	14.5	17.5	81.5	538	32.6
MAD i	29	20	12.5	34	0.145	1.9	20	0.9	0.8	3.4	22	2
IQR i	56.5	33.8	19	75	0.222	3.45	27.5	1.95	1.2	5.9	40	3.4
Robust CV % i	14	4	4	14	51	9	6	10	5	6	12	8
Median f	289	575	330	396	0.325	27.1	352	14.8	18.9	78	246	32.6
Mean f	281	575	330	384	0.366	27.1	353	14.6	18.8	79.3	243	32.6
MAD f	22	7	0	29	0.145	1.6	8	0.9	0.25	2	14.5	1.05
IQR f	61	12.8	0.75	41	0.222	2.65	15	1.73	0.525	4.4	26.5	1.58
Robust CV % f	16	2	0	8	51	7	3	9	2	4	8	4
Outliers	1	3	1	1	0	3	3	3	6	4	2	5
Stragglers	0	3	7	0	0	0	1	0	1	0	1	0

2018: Extractable Na - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	13	13	14	14	15	15	15	15
Minimum	1.21	1.72	14	10.8	0.247	14.6	206	14	3.55	7.82	14.8	11
Maximum	155	277	371	290	11	30.8	533	112	87	56.3	674	43
Median i	21	23	340	256	3.4	18	332	63.3	70.7	45.1	508	16.3
Mean i	29.4	41.1	313	233	4.87	20	348	61.3	63.2	42.8	468	18.5
MAD i	7.3	5.4	16	19	1.2	2	17.5	4.65	3.7	4.2	11	3.1
IQR i	10.1	8	30	42	4.67	4.8	53.3	8.38	7.95	9.9	18.5	7.5
Robust CV % i	36	26	7	12	102	20	12	10	8	16	3	34
Median f	21	22.6	346	259	2.71	17	324	64.1	71	48	509	16.2
Mean f	20.5	22	345	251	2.91	17.4	324	64.7	71.2	47.5	507	16.8
MAD f	4.6	3.9	15	20	0.39	1.15	1	2.85	1.2	4.9	6	2.75
IQR f	8.55	6.53	27	38	0.72	2.7	2	5.08	2	9.4	7.75	5.58
Robust CV % f	30	21	6	11	20	12	0	6	2	15	1	26
Outliers	1	2	2	1	2	2	3	3	3	2	5	1
Stragglers	1	1	0	0	4	1	6	1	3	0	0	0

2018: Extractable P - ICP — Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	14	14	14	15	15	15	16	17	17	17
Minimum	8.2	8.2	6	2.9	1.25	7.34	6.4	4.4	3	2.8	3.2	1.2
Maximum	41.3	37.1	32.9	34.9	7	67.5	29.2	42.6	8.92	140	52	135
Median i	27.4	24	19.3	19.7	2.05	32.3	18.9	28.9	6.46	8.62	23.4	48
Mean i	27.3	24.2	19.9	20.6	2.59	28.6	17.9	26.6	6.37	16.2	23.2	51.9
MAD i	1.85	1.25	0.7	1.3	0.695	14.2	1.1	2.2	0.55	0.93	1	3
IQR i	4.28	2.23	1.63	2.43	1.68	28.8	2.7	6.05	1.01	1.83	1.9	5.9
Robust CV % i	12	7	6	9	61	66	11	16	12	16	6	9
Median f	27.4	23.8	19.3	19.4	1.43	32.3	19	29	6.46	8.72	23.4	48
Mean f	27.7	23.7	19.5	19.2	1.68	28.6	18.9	28.9	6.48	8.8	23.3	47.5
MAD f	1.85	0.7	0.6	1	0.145	14.2	0.7	2	0.2	0.205	0.7	1.05
IQR f	3.63	1.23	1	1.8	0.803	28.8	1.05	3.45	0.328	0.41	1.45	3.05
Robust CV % f	10	4	4	7	42	66	4	9	4	3	5	5
Outliers	2	3	3	4	2	0	4	4	3	5	5	5
Stragglers	0	1	0	0	2	0	0	0	3	4	1	2

2018: Extractable S - Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	13	13	13	13	13	13	13	13	14	14	14	14
Minimum	5.24	8.04	4.18	5.6	4	11	2.2	17	4.3	0.201	0.03	0.35
Maximum	101	85.6	44.2	111	103	81.6	86.8	100	163	177	151	74.2
Median i	21.7	44	17.1	20.4	19	31	14.1	36	26	53.5	13.8	13.6
Mean i	25	41.4	16.8	24.9	28.9	36.1	24.4	43.1	34	55.6	23.3	17.8
MAD i	1.5	3.8	0.7	2.6	1.5	4.2	1.5	3.9	1.8	8	1.2	2.6
IQR i	6.8	4.8	2.9	6	2.6	5.7	1.9	6.8	3.13	10.2	2.23	5.03
Robust CV % i	23	8	13	22	10	14	10	14	9	14	12	27
Median f	23	44.1	17.6	20.6	18.3	30.2	14	36	26.4	54	13.5	13.2
Mean f	22.5	42.9	17.4	20.6	18	30.5	13.8	35.6	26.4	53.1	13.8	13.4
MAD f	0.6	1.95	0.2	1.4	1.2	0.8	0.3	2.5	0.8	4.6	0.6	1.8
IQR f	1.43	3.53	0.625	2.2	2	1.45	0.6	4.53	1.4	7.55	1.5	3.05
Robust CV % f	5	6	3	8	8	4	3	9	4	10	8	17
Outliers	3	3	4	3	3	3	3	3	3	3	5	3
Stragglers	2	0	1	1	1	3	1	0	2	0	0	0

2018: Extractable Zn — Mehlich3 (18F1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	14	14	13	13	13	15	15	15	16	17	16	17
Minimum	0.5	6.2	0.37	0.2	0.0354	0.47	0.2	1.6	0.31	1.1	0.01	0.88
Maximum	2.46	16.6	1.34	1.89	0.945	1.86	1.96	4.13	1.4	5.23	1.3	3.72
Median i	1.55	12.8	0.544	0.934	0.12	1.2	1.34	2.92	0.912	2.41	0.74	2.37
Mean i	1.52	12.5	0.596	0.926	0.248	1.22	1.32	2.93	0.886	2.53	0.755	2.39
MAD i	0.11	0.9	0.088	0.156	0.0747	0.2	0.13	0.31	0.067	0.12	0.1	0.15
IQR i	0.193	1.85	0.132	0.26	0.168	0.39	0.265	0.575	0.107	0.3	0.216	0.25
Robust CV % i	9	11	18	21	104	24	15	15	9	9	22	8
Median f	1.55	12.8	0.532	0.934	0.0904	1.2	1.34	2.92	0.912	2.4	0.727	2.36
Mean f	1.56	12.6	0.53	0.905	0.105	1.22	1.35	2.95	0.909	2.39	0.721	2.36
MAD f	0.05	0.7	0.04	0.155	0.0468	0.2	0.12	0.29	0.0205	0.06	0.0515	0.125
IQR f	0.09	1.35	0.073	0.251	0.111	0.39	0.22	0.5	0.033	0.125	0.0963	0.228
Robust CV % f	4	8	10	20	91	24	12	13	3	4	10	7
Outliers	4	2	1	2	2	0	2	2	3	6	2	3
Stragglers	1	0	2	0	1	0	0	0	5	1	2	0

2018: Extractable K — Bicarbonate (18A1) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	12	12	12	12	13	13	13	13
Minimum	312	391	271	262	1	55	338	180	8	64	15	22
Maximum	589	705	584	573	481	762	1470	1220	59.4	335	478	317
Median i	448	554	413	403	10.2	68.5	400	209	47.7	225	380	246
Mean i	435	569	404	395	49.1	129	514	333	45.6	229	361	239
MAD i	48	49	43	23	3.25	6.4	22.5	17.5	4.2	15	13	3
IQR i	91.5	124	84.5	68	5.01	11.6	50.3	90.3	7.5	23	31	20
Robust CV % i	15	17	15	13	37	13	9	32	12	8	6	6
Median f	448	554	413	406	10	66.9	391	206	48	225	379	246
Mean f	431	569	399	411	8.99	67.5	396	205	48.8	230	379	246
MAD f	30	49	33	18	1.86	5.35	16.5	3.5	4.35	8	7.5	1
IQR f	60	124	64	23	3	10.4	29.3	5.5	8.3	18.5	11.5	1.5
Robust CV % f	10	17	11	4	22	12	6	2	13	6	2	0
Outliers	0	0	0	2	3	3	3	5	3	4	5	8
Stragglers	3	0	2	2	1	0	0	2	0	1	2	1

2018: Total Organic Matter (6G1) %

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	8	8	8	8	6	9	9	9	8	9	9	9
Minimum	4.06	5.25	1.8	1.3	0.185	1.26	1.4	4	4.6	3	1.1	2.57
Maximum	9.9	10.5	4.6	5.5	0.3	3	5.6	6.5	7.19	34.5	5.6	6.5
Median i	5.23	7.64	2.38	1.82	0.251	1.47	2.17	4.91	5.53	24.8	2.24	2.8
Mean i	6.03	7.71	2.75	2.48	0.243	1.86	2.6	5.17	5.75	25.7	2.48	3.4
MAD i	1.1	1.73	0.345	0.42	0.0335	0.17	0.69	0.58	0.635	5	0.84	0.23
IQR i	2.76	2.85	0.905	1.34	0.0548	1.12	1.88	1.82	0.983	8.9	1.23	0.56
Robust CV % i	39	28	28	55	16	56	64	27	13	27	41	15
Median f	5.23	7.64	2.15	1.4	0.251	1.46	1.7	4.91	5.53	24.8	2.24	2.73
Mean f	6.03	7.71	2.2	1.4	0.243	1.42	2.01	5.17	5.75	25.7	2.48	2.77
MAD f	1.1	1.73	0.265	0.06	0.0335	0.08	0.3	0.58	0.635	5	0.84	0.065
IQR f	2.76	2.85	0.468	0.0875	0.0548	0.135	0.665	1.82	0.983	8.9	1.23	0.113
Robust CV % f	39	28	16	5	16	7	29	27	13	27	41	3
Outliers	0	0	2	2	0	3	1	0	0	0	0	2
Stragglers	0	0	0	2	0	0	1	0	0	0	0	1

2018: Total Aluminium (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	10	9	10	10	12	12	12	12	11	11	11	11
Minimum	66	44.4	40.5	53.3	670	4070	8000	5640	7500	43000	19900	5310
Maximum	66000	43100	36300	53300	3260	27400	46300	35700	27200	68800	53800	21800
Median i	31700	31700	16900	28900	1390	8840	27700	18300	19600	55800	45300	13300
Mean i	33700	30400	19800	29800	1400	11600	24500	17300	17700	54000	38700	12800
MAD i	16100	7700	10500	12200	315	3690	10000	7720	7400	5100	8200	6700
IQR i	24500	15300	19500	19900	617	9230	22300	16000	15900	7550	25600	12500
Robust CV % i	57	36	86	51	33	77	60	65	60	10	42	70
Median f	31700	31700	16900	28900	1340	8640	27700	18300	19600	55800	45300	13300
Mean f	33700	30400	19800	29800	1240	10100	24500	17300	17700	54000	38700	12800
MAD f	16100	7700	10500	12200	210	3320	10000	7720	7400	5100	8200	6700
IQR f	24500	15300	19500	19900	624	7610	22300	16000	15900	7550	25600	12500
Robust CV % f	57	36	86	51	35	65	60	65	60	10	42	70
Outliers	0	0	0	0	1	1	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2018: Total Calcium (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	11	13	13	13	12	12	12	12
Minimum	7.67	3.3	1.85	8.59	15.6	797	1230	800	727	2650	2790	766
Maximum	8500	3460	1800	9310	384	1150	1930	1190	1560	4000	4200	1140
Median i	6670	2990	1580	8010	34.6	945	1580	1000	1290	3250	3310	874
Mean i	6370	2770	1440	7150	69.1	947	1530	974	1220	3190	3320	907
MAD i	730	210	100	690	7.7	59	60	55	95	210	305	48.5
IQR i	1430	400	215	1420	15.7	96	120	108	168	550	520	126
Robust CV % i	16	10	10	13	34	8	6	8	10	13	12	11
Median f	6920	3060	1590	8070	34	945	1580	1000	1300	3250	3310	844
Mean f	7010	3050	1580	7870	31.4	947	1550	974	1260	3190	3320	868
MAD f	740	195	85	560	7	59	55	55	80	210	305	49
IQR f	1300	353	173	1190	9.1	96	87.5	108	145	550	520	77
Robust CV % f	14	9	8	11	20	8	4	8	8	13	12	7
Outliers	1	1	1	1	2	0	3	0	1	0	0	2
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2018: Total Chromium (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	8	8	8	8	12	12	12	12	11	11	11	11
Minimum	0.0723	0.0204	0.0385	0.0509	4	24.8	19.4	15.3	42.2	12	21.2	32.6
Maximum	71	19.6	36.5	51.1	110	53.5	72.4	57.7	86	21.1	50.2	103
Median i	47	15.2	22	33.1	6.53	36.1	45.1	30.8	62	14.6	31	71.7
Mean i	43.1	13.7	21.5	30.8	15.4	36.5	47.2	34.2	61.4	15.6	34.5	72.5
MAD i	6.6	1.3	3.5	7.2	1.25	6.1	8.3	9.2	9.1	1.1	5.5	6.3
IQR i	10.3	2.4	6.33	9.85	2.39	10.6	17.7	21.1	17.5	3.1	10.6	12
Robust CV % i	16	12	21	22	27	22	29	51	21	16	25	12
Median f	48	15.3	24	33.1	6.14	36.1	45.1	30.8	62	14.6	31	71.7
Mean f	49.3	15.6	24.5	30.8	6.52	36.5	47.2	34.2	61.4	15	34.5	73.5
MAD f	5	1.3	4	7.2	0.545	6.1	8.3	9.2	9.1	1.1	5.5	5.3
IQR f	7.9	1.8	7.15	9.85	2	10.6	17.7	21.1	17.5	2.55	10.6	9
Robust CV % f	12	9	22	22	24	22	29	51	21	13	25	9
Outliers	1	1	1	0	1	0	0	0	0	1	0	2
Stragglers	0	0	0	0	1	0	0	0	0	0	0	0

2018: Total Copper (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	10	12	13	13	13	13	13	13
Minimum	0.0369	0.0221	0.0206	0.029	0.19	2.74	9.32	4	9	10	14	5
Maximum	27.7	17.8	14.8	23.2	3.87	5.94	18	7.47	17.1	19.6	22.1	8.99
Median i	24.6	13.2	11	17	0.303	3.89	15.4	5.52	13.5	14.5	18.1	6.47
Mean i	21.6	12.7	10.8	15.6	0.753	4.07	14.3	5.71	13.5	14.7	18.5	6.79
MAD i	1.7	2.2	1	2	0.103	0.41	2.3	0.98	2	1.6	1.8	1.1
IQR i	5.4	2.8	3.15	4.2	0.331	0.735	3.1	1.59	3.5	2.9	4	2.42
Robust CV % i	16	16	21	18	81	14	15	21	19	15	16	28
Median f	24.6	13.7	11	17	0.23	3.69	15.4	5.52	13.5	14.5	18.1	6.47
Mean f	23.8	14	11.9	17.2	0.251	3.73	14.3	5.71	13.5	14.7	18.5	6.79
MAD f	1.65	1.25	1	1.95	0.04	0.265	2.3	0.98	2	1.6	1.8	1.1
IQR f	4.6	2.15	3.38	3.53	0.103	0.575	3.1	1.59	3.5	2.9	4	2.42
Robust CV % f	14	12	23	15	33	12	15	21	19	15	16	28
Outliers	1	1	1	1	2	2	0	0	0	0	0	0
Stragglers	0	0	0	0	1	0	0	0	0	0	0	0

2018: Total Iron (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	10	10	10	10	12	12	12	12	11	11	11	11
Minimum	31.4	16.4	13.9	19.8	80	6240	12100	22500	20000	22000	19000	12000
Maximum	47300	29400	22700	31700	966	26500	45800	35500	37800	38900	31600	16700
Median i	40600	23500	15700	24400	122	6980	19300	27000	31600	31200	26800	15600
Mean i	36100	21600	15300	22500	198	8720	20100	27300	31800	29900	26800	15000
MAD i	6000	3150	5300	5250	36.5	500	3400	2300	1300	2700	3100	900
IQR i	12100	5500	7830	9330	64.4	990	5330	3880	4150	5300	4900	2150
Robust CV % i	22	17	37	28	39	11	21	11	10	13	14	10
Median f	42500	24200	15700	26300	113	6930	18700	27000	31300	31200	26800	15600
Mean f	40100	24000	15300	25000	128	7100	17800	27300	32000	29900	26800	15000
MAD f	4500	2100	5300	5200	25	440	2800	2300	650	2700	3100	900
IQR f	9500	3700	7830	9700	62.4	870	5050	3880	1880	5300	4900	2150
Robust CV % f	17	11	37	27	41	9	20	11	4	13	14	10
Outliers	1	1	0	1	1	1	1	0	2	0	0	0
Stragglers	0	0	0	0	0	0	0	0	1	0	0	0

2018: Total Potassium (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	8	12	12	12	12	12	12	12
Minimum	5.45	1.93	4.64	6.27	2.32	120	1560	550	77	268	157	188
Maximum	5380	1820	4220	6390	72	228	4380	3880	745	1930	7880	1240
Median i	3390	970	2400	4300	13.1	150	3370	1970	242	557	4250	702
Mean i	3220	1040	2650	4210	20.5	162	3070	1960	254	653	4470	697
MAD i	1180	220	1030	1580	7.36	19	735	1220	74.5	101	1520	201
IQR i	1900	474	2010	2500	11.4	50	1620	2430	140	179	2870	414
Robust CV % i	42	36	62	43	65	25	36	92	43	24	50	44
Median f	3390	1070	2400	4300	12.2	147	3370	1970	241	513	4250	702
Mean f	3220	1150	2650	4210	13.2	156	3070	1960	210	498	4470	697
MAD f	1180	245	1030	1580	5.12	17	735	1220	66	81.5	1520	201
IQR f	1900	419	2010	2500	8.41	37.5	1620	2430	139	152	2870	414
Robust CV % f	42	29	62	43	51	19	36	92	43	22	50	44
Outliers	0	1	0	0	1	1	0	0	1	1	0	0
Stragglers	0	0	0	0	0	0	0	0	0	1	0	0

2018: Total Magnesium (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	10	14	14	14	11	12	12	12
Minimum	5.17	1.1	3.64	6.04	3.3	141	0.289	0.118	380	500	4300	140
Maximum	4950	1230	3610	6160	28.9	252	3350	1390	834	1010	6570	370
Median i	4360	840	2700	4970	7.15	210	2530	1060	606	802	5020	219
Mean i	3870	821	2590	4600	9.08	202	2320	922	608	757	5070	223
MAD i	390	155	340	550	2.06	30	525	335	150	124	490	43.5
IQR i	740	243	685	920	3.63	43.8	1020	699	226	193	730	78.5
Robust CV % i	13	21	19	14	38	15	30	49	28	18	11	27
Median f	4380	878	2820	4990	7	210	2550	1060	606	802	5020	219
Mean f	4260	903	2850	5060	6.88	202	2490	922	608	757	5070	223
MAD f	345	128	355	440	2.15	30	520	335	150	124	490	43.5
IQR f	730	221	695	768	3.77	43.8	980	699	226	193	730	78.5
Robust CV % f	12	19	18	11	40	15	28	49	28	18	11	27
Outliers	1	1	1	1	1	0	1	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2018: Total Manganese (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	12	13	13	13	13	13	13	13
Minimum	1.22	3.01	0.767	1.7	0.3	30.3	3.56	32.5	45	200	440	47.2
Maximum	1340	3860	816	2040	9.3	44	1010	60	161	312	603	80.5
Median i	1180	3090	670	1600	0.969	38	801	49	69.3	237	538	60.9
Mean i	1050	2890	644	1530	1.69	37.9	772	46.7	83.4	242	529	61.5
MAD i	80	160	44	130	0.559	1.4	38	4	22.7	10	34	11.3
IQR i	155	335	78	215	1.17	2.6	93	13.5	40.6	19	60	20.4
Robust CV % i	10	8	9	10	89	5	9	20	43	6	8	25
Median f	1190	3090	692	1650	0.897	37.4	800	49.6	69.3	235	541	60.9
Mean f	1160	3110	708	1680	0.995	37.6	810	47.9	77	236	537	61.5
MAD f	80	120	39	100	0.497	1.25	27.5	4.25	22.3	8	28.5	11.3
IQR f	145	200	76.8	185	1.09	2.03	47	9.1	41.1	14.3	50.3	20.4
Robust CV % f	9	5	8	8	90	4	4	14	44	4	7	25
Outliers	1	2	1	1	1	2	2	1	1	1	0	0
Stragglers	0	0	0	0	0	1	1	0	0	2	1	0

2018: Total Sodium (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	9	9	10	10	8	8	12	11	10	10	11	8
Minimum	0.472	0.641	0.724	0.637	4.37	35.3	329	90	89	100	587	60
Maximum	180	1780	658	652	71.1	113	1080	255	149	1090	1400	116
Median i	125	240	430	412	14.4	45.3	443	168	112	233	790	79.6
Mean i	106	404	426	386	21.5	57.2	497	172	112	314	825	83.4
MAD i	43	160	45	80	8.24	8	69.5	48	16	118	132	14.1
IQR i	118	349	99.5	145	17.4	21.5	136	97	28.5	247	242	28.9
Robust CV % i	70	108	17	26	90	35	23	43	19	78	23	27
Median f	125	190	430	444	12	42.6	440	168	112	199	747	79.6
Mean f	106	232	450	429	14.4	43.3	444	172	112	228	768	83.4
MAD f	43	105	34.5	66	6.61	4.2	59	48	16	89	99.5	14.1
IQR f	118	236	72.5	119	12.4	6.98	110	97	28.5	188	209	28.9
Robust CV % f	70	92	12	20	77	12	19	43	19	70	21	27
Outliers	0	1	2	1	1	2	1	0	0	1	1	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2018: Total Lead (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	8	9	9	9	6	7	8	8	10	9	9	10
Minimum	0.0112	0.0189	0.014	0.0164	0.2	2.8	7.48	13.3	4.73	1.25	0.873	6.54
Maximum	11.4	19	14.8	19.8	0.732	3.63	12.6	20.7	13.7	13.9	10.5	13.1
Median i	9.77	16	12	15.4	0.358	2.87	10.7	16.7	12.3	11	10	11
Mean i	7.75	13.1	9.63	12.8	0.408	3.01	10.4	16.7	11	10.1	8.71	10.4
MAD i	1.24	2.8	1	3.6	0.102	0.07	0.75	1.15	1.3	1.3	0.2	1.25
IQR i	4.24	5.3	3.57	6.6	0.171	0.29	1.41	2.15	4.55	2.1	0.4	2.7
Robust CV % i	32	25	22	32	35	7	10	10	27	14	3	18
Median f	10.5	17	12.7	15.4	0.358	2.8	10.7	16.7	12.8	11.4	10	11.2
Mean f	10.3	16.8	12.9	12.8	0.408	2.82	10.4	16.7	12.7	11.2	10.1	11.6
MAD f	0.7	1.1	0.5	3.6	0.102	0	0.75	1.15	0.7	1.05	0.2	0.3
IQR f	1.35	2.45	0.9	6.6	0.171	0.0175	1.41	2.15	1.25	1.8	0.3	1.25
Robust CV % f	10	11	5	32	35	0	10	10	7	12	2	8
Outliers	2	2	2	0	0	1	0	0	1	1	2	0
Stragglers	0	0	1	0	0	2	0	0	2	0	0	3

2018: Total Sulphur (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	8	8	8	8	6	8	8	8	8	8	8	8
Minimum	0.521	0.721	0.445	0.399	10.4	39.8	63.8	24	229	1330	59	89
Maximum	250	510	120	140	817	803	830	883	1660	8400	727	775
Median i	224	453	104	111	36.9	66.2	86.8	267	289	1460	118	103
Mean i	194	404	93.5	99.7	162	154	179	312	457	2360	186	189
MAD i	14	19.5	10.4	13.3	3.8	5.25	11.6	25.5	37	50	33.9	9.85
IQR i	31	34	15.2	27.4	5.95	11.6	22	48.3	63.5	200	51.3	23.7
Robust CV % i	10	6	11	18	12	13	19	13	16	10	32	17
Median f	228	461	104	122	36.9	66.2	80	267	287	1430	113	98.5
Mean f	227	461	107	114	36.6	64.8	85.6	265	285	1430	108	105
MAD f	4.5	24	7	18	1.8	4.35	13.5	20.5	26	35	20	9.5
IQR f	7.75	34	12.5	24.8	2.65	9.8	18.4	34.3	41	60	44.4	15.5
Robust CV % f	3	5	9	15	5	11	17	10	11	3	29	12
Outliers	1	1	1	1	2	2	1	2	1	2	1	1
Stragglers	1	0	0	0	0	0	0	0	0	0	0	0

2018: Total Zinc (17B1 + 17B2) mg/kg

Statistical parameters	Soil sample identification and values											
	March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
	ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
No of results	11	11	11	11	9	12	13	13	12	13	13	11
Minimum	0.0836	0.114	0.021	0.0648	0.104	2.3	12.7	9.73	6.4	25	22	4.1
Maximum	68.3	97	31.7	52.1	3.76	7.2	38	24.4	18.2	42.2	45	8.52
Median i	51	78.5	17	39	0.864	4.1	28.3	18.9	14	36.4	38.8	6.77
Mean i	49.2	75	19.1	36.9	1.16	4.28	26.7	18.1	12.3	35.7	36.3	6.54
MAD i	7.9	17.6	7.7	8.4	0.636	0.705	7.2	3.5	2.55	5	5.8	0.77
IQR i	17	26.5	12.6	15.1	1.23	1.45	13.1	6	8.33	10.1	11.2	1.97
Robust CV % i	25	25	55	29	106	26	34	24	44	21	21	22
Median f	53.8	82.9	17	39.5	0.834	3.7	28.3	18.9	14	36.4	38.8	6.77
Mean f	54.2	82.5	19.1	40.5	0.84	3.71	26.7	18.1	12.3	35.7	36.3	6.54
MAD f	8.1	13.6	7.7	7.5	0.599	0.97	7.2	3.5	2.55	5	5.8	0.77
IQR f	17.9	25.1	12.6	13.9	1.16	1.74	13.1	6	8.33	10.1	11.2	1.97
Robust CV % f	25	22	55	26	103	35	34	24	44	21	21	22
Outliers	1	1	0	1	1	2	0	0	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

4. Comments on Measurement Performance

The 12 soils tested in 2018 represented a wide geographic spread, with multiple samples sourced from New Zealand and from every Australian state except South Australia. One soil from each round was a material previously tested. Based on final median concentrations submitted by laboratories, there were 4 acidic samples with measurable amounts of Aluminium. Half of the soils tested were alkaline, with 2 of these calcareous soils, and 1 sample was highly organic. While calcareous soils are common in parts of Australia, their historical frequency in the program is low making this year's samples a comprehensive representation of the materials that many ASPAC laboratories measure.

The precision between laboratories for each method was maintained at a similar level or showed a small improvement to the last few years. Table 4.1. lists the highest and lowest performing methods in 2018, with a composition similar the list in the 2017 report. Most of the lowest performing methods in 2018 were Aqua Regia digestible elements, reported for only the second year.

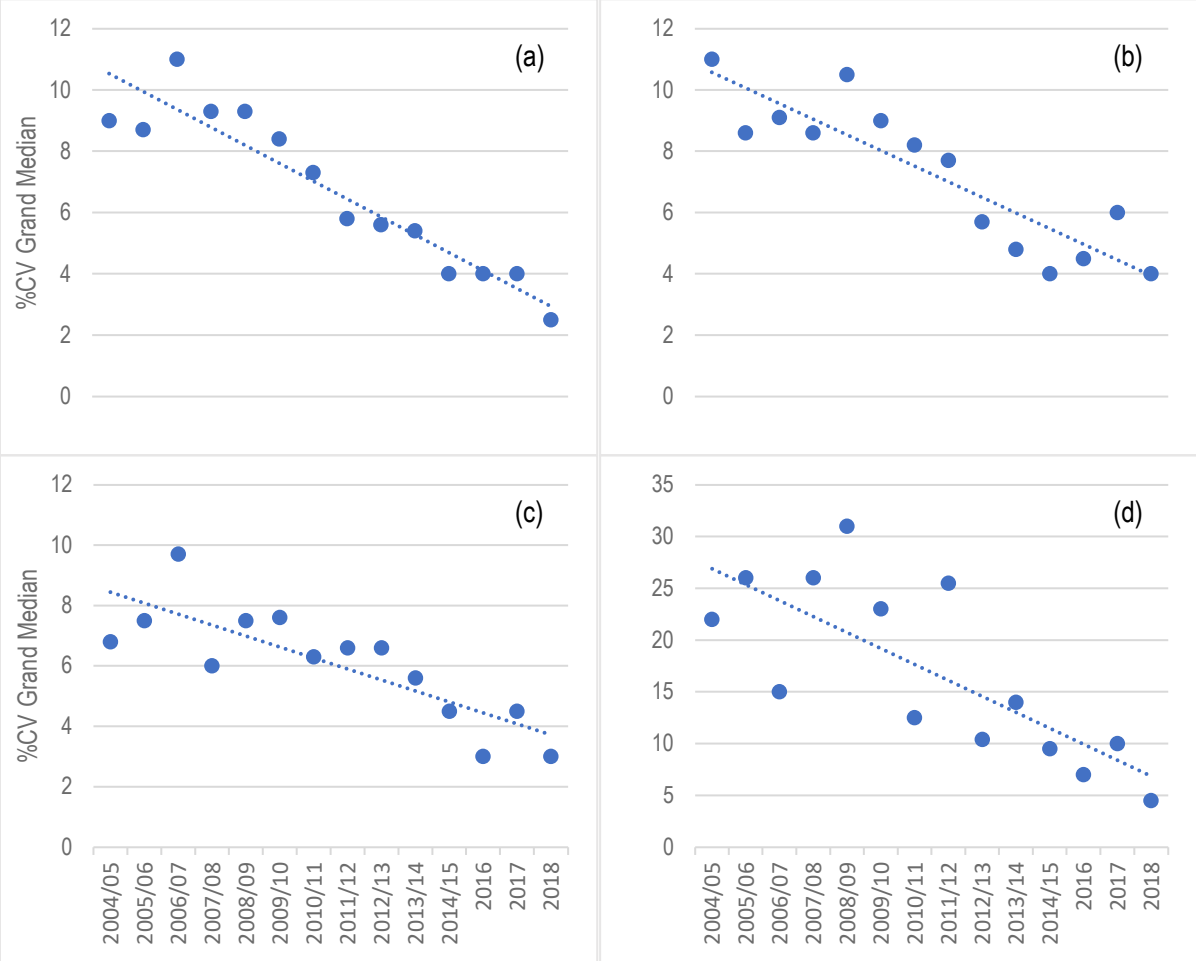
Table 4.1. The six best performed and worst performed soil chemical tests for 2018, based on the percent robust coefficients of variation (%CV as grand medians) for all twelve samples after the removal of "outliers" and "stragglers", and excluding pH soil tests which are logarithmic and have been shown over the years to be in the range 1 - 3% CV.

Best (Lowest Robust %CVs)	
Soil Method	***%CV***
Exchangeable Ca (15D3)	2.5
Exchangeable Mg (15D3)	3
Mehlich Extractable Ca (18F1)	3.5
Total C (6B2)	4
Exchangeable K (15D3)	4
Total Organic C (pooled)	4.5

Worst (Highest Robust %CVs)	
Soil Method	***%CV***
Aqua Regia Cr (17B1/17B2)	22
Extractable Cl (5A1/A2)	24
Aqua Regia Na (17B1/17B2)	24
Aqua Regia Zn (17B1/17B2)	25.5
Aqua Regia K (17B1/17B2)	43
Aqua Regia Al (17B1/17B2)	58.5

Trend data for the Exchangeable Cations using the Ammonium Acetate extraction method (15D3) is presented in Figure 4.1, providing an example of long-term interlaboratory method performance improvement and the potential for improvement in Aqua Regia digestible elements. We see an incremental decline in variation between laboratories each year, with notable improvement for Sodium since 2012/2013. It demonstrates the merit of participation in the ASPAC proficiency program, with laboratories reacting to performance feedback and refining their applications of the standardized method towards improved inter-laboratory precision.

Figure 4.1. Long-term performance of method 15D3 for (a) Calcium, (b) Potassium, (c) Magnesium and (d) Sodium, plotting the median %CV for all 12 samples in each program year (%CV as grand medians).



Appendix 1: List of laboratories (including contact details) that participated in ASPAC's Soil ILPP in 2018, arranged by country

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Stephanie King (Administration)	Aglab Services	32 Wattlepark Avenue Moolap, Victoria, 3220	Australia	service@agmin.com.au
Ian Grant (Director)	Agricultural Chemistry P/Ltd	72 Cothill Rd, Silkstone, QLD 4304	Australia	igrant51@optusnet.com.au
Stephanie King	Agrilab	32 Wattlepark Avenue Moolap, Victoria, 3220	Australia	service@agmin.com.au
Craig Newman (Laboratory Manager)	AgVita Analytical	4 Thompson's Road, Latrobe, TAS 7307 PO Box 188, Devonport, TAS 7310	Australia	cnewman@agvita.com.au
Kristina Moulding (National Quality Manager)	ALS Scoresby	22 Dalmore Drive, Scoresby, Victoria 3179	Australia	kristina.moulding@alsglobal.com
Subashini Munasinghe (Strategic Project and Technical Manager)	Analytical Laboratories and Technical Services Australia (ALTSA)	162 New Guinea Road, Robinvale, VIC, 3549	Australia	suba@dualchelate.com
Tim Thompson (Operations Manager)	APAL Laboratory Pty Ltd	489 The Parade, Magill, SA 5072 PO Box 327, Magill, SA 5072	Australia	tim@apal.com.au
Kerri Taylor (QC Coordinator)	Australian Laboratory Services (Brisbane)	32 Shand St, Stafford, QLD 4053	Australia	Kerri.Taylor@alsglobal.com
Emily Yuen (QC Coordinator)	Australian Laboratory Services (Melbourne)	4 Westall Rd, Springvale, Victoria 3171	Australia	emily.yuen@alsglobal.com
Fernando Rodriguez (QC Officer)	Australian Laboratory Services (Perth)	10 Hod Way, Malaga, WA, 6090	Australia	fernando.rodriguez@alsglobal.com
Lancy Cai (National Quality Manager)	Australian Laboratory Services (Sydney)	277-289 Woodpark Rd, Smithfield, NSW 2164	Australia	lancy.cai@alsglobal.com
Peter Keating (Managing Director)	Bioscience	488 Nicholson Rd, Forrestdale, WA PO Box 5466, Canning Vale South , WA	Australia	bioscience@biosciencewa.com
Hannah Burton (Team Leader – Environmental Chemistry)	ChemCentre (WA)	Resources & Chem Precinct Centre, Conlon, WA 6102 PO Box 1250 Bentley Delivery Centre, WA 6983	Australia	ECLabManager@chemcentre.wa.gov.au
Chris Gendle (Chemist)	CSBP Ltd – Soil and Plant	2 Altona St, Bibra Lake, WA 6163	Australia	chris.gendle@csbp.com.au
Nell Peisley (DNA Sequencing Coordinator)	CSIRO Analytical Chemistry Group - Agriculture	Clunies Ross St, Acton, ACT 2601 GPO Box 1600, Canberra, ACT 2601	Australia	nell.peisley@csiro.au
John Gouzos (Manager, Analytical Services)	CSIRO Land and Water, Adelaide	Entrance 4 Waite Rd, Urrbrae, SA 5064 Private Bag 2, Glen Osmond, SA 5064	Australia	John.gouzos@csiro.au
John Pengelly (Environmental Chemist)	CSIRO Land and Water Flagship	Building 8, University Drive, Wodonga, VIC 3690 PO Box 91, Wodonga, VIC 3690	Australia	john.pengelly@csiro.au

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
Janine McGowan	CSIRO Soil, Carbon and Nutrient Cycling Lab, CSIRO Land and Water	Gate 4, Waite Rd, Urrbrae, SA 5064 PMB 2, Glen Orsmond SA 5064	Australia	janine.Mcgowan@csiro.au
George Croatto (Research Scientist)	DEDJTR Macleod Chemistry Laboratory	TER 4, Ernest Jones Dr, Macleod, VIC 3085	Australia	George.Croatto@ecodev.vic.gov.au
Rob DeHayr (Manager)	Department of Environment and Science – Chemistry Centre	Block A - Level 3, 41 Boggo Road, Joe Baker Street, Loading Dock 3, Dutton Park, QLD 4102 Business Unit (ESP), GPO Box 2454, Brisbane, QLD 4001	Australia	rob.dehayr@des.qld.gov.au
Ehsan Tavakkoli (Technical Officer, Soils)	Dept of Primary Industries, NSW Wagga Wagga	Pine Gully Rd, Wagga Wagga, NSW 2650	Australia	ehsan.tavakkoli@dpi.nsw.gov.au
Clarence Mercer (Technical Officer)	DPI Tamworth Soil Chemistry	4 Marsden Park Road, Calala, NSW, 2340	Australia	clarence.mercer@dpi.nsw.gov.au
Michael Smirk (Analytical Chemist)	Earth and Environment Analysis Laboratory (UWA)	University of Western Australia, 35 Stirling Highway, Crawley, WA 6009	Australia	Michael.Smirk@uwa.edu.au
Stephanie Cameron (Operations Manager)	East West EnviroAg	82 Plain St, Tamworth, NSW 2340	Australia	Stephanie.c@eastwestonline.com.au
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Appendix 2: Summary examples of homogeneity data and statistical assessments for soil samples used in the ASPAC Soil ILPP in the 2018

Sample name		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
Sub-sample													
1	Rep 1	0.217	0.321	0.109	0.207	0.012	0.038	0.087	0.200	0.192	1.20	0.080	0.120
	Rep 2	0.218	0.328	0.105	0.209	0.012	0.038	0.085	0.205	0.186	1.21	0.081	0.121
2	Rep 1	0.220	0.326	0.101	0.209	0.012	0.038	0.086	0.201	0.194	1.19	0.081	0.113
	Rep 2	0.219	0.328	0.104	0.208	0.012	0.038	0.088	0.203	0.189	1.19	0.082	0.144
3	Rep 1	0.221	0.320	0.103	0.208	0.013	0.038	0.088	0.202	0.185	1.19	0.081	0.133
	Rep 2	0.222	0.326	0.109	0.208	0.012	0.038	0.087	0.200	0.184	1.20	0.081	0.127
4	Rep 1	0.219	0.325	0.104	0.208	0.012	0.038	0.087	0.202	0.183	1.19	0.081	0.107
	Rep 2	0.220	0.327	0.105	0.209	0.012	0.038	0.086	0.200	0.180	1.20	0.082	0.113
5	Rep 1	0.219	0.324	0.104	0.207	0.012	0.038	0.086	0.206	0.194	1.19	0.081	0.131
	Rep 2	0.220	0.327	0.105	0.206	0.012	0.038	0.088	0.201	0.184	1.21	0.082	0.151
6	Rep 1	0.219	0.321	0.105	0.214	0.013	0.038	0.087	0.205	0.196	1.19	0.081	0.134
	Rep 2	0.219	0.327	0.103	0.208	0.012	0.038	0.087	0.201	0.194	1.20	0.082	0.127
7	Rep 1	0.219	0.327	0.104	0.214	0.012	0.038	0.084	0.204	0.182	1.19	0.079	0.121
	Rep 2	0.221	0.332	0.106	0.208	0.012	0.038	0.084	0.208	0.182	1.20	0.082	0.111
8	Rep 1	0.220	0.329	0.100	0.216	0.012	0.038	0.083	0.206	0.195	1.20	0.080	0.142
	Rep 2	0.220	0.329	0.105	0.207	0.013	0.038	0.085	0.204	0.185	1.20	0.081	0.132
9	Rep 1	0.219	0.324	0.104	0.222	0.013	0.038	0.086	0.204	0.203	1.20	0.081	0.121
	Rep 2	0.219	0.327	0.102	0.207	0.013	0.038	0.085	0.202	0.195	1.22	0.081	0.111
10	Rep 1	0.218	0.324	0.103	0.222	0.012	0.038	0.087	0.200	0.186	1.20	0.081	0.125
	Rep 2	0.221	0.325	0.105	0.208	0.013	0.038	0.087	0.205	0.182	1.19	0.082	0.136

Mean	0.220	0.326	0.104	0.21	0.012	0.038	0.086	0.203	0.188	1.20	0.081	0.126
Analytical SD	1E-05	1 E-05	4E-06	0.00003	4E-08	3E-07	1E-06	0.00001	0.00002	0.0001	1E-06	0.0001
Sampling SD	3E-07	0	1E-07	0	2E-08	8E-08	1E-06	0	0.00002	0.00001	0	0.00005
SD proficiency data	0.0067	0.0045	0.0047	0.005	0.0029	0.0074	0.017	0.024	0.026	0.284	0.013	0.021
Status	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**	**H**

* Homogeneity statistics calculated according to *Thompson, M., Ellison, S.L.R. and Wood, R. (2006). "The International Harmonised Protocol For the Proficiency Testing of Analytical Chemistry Laboratories." Pure Appl. Chem. Vol. 78, No. 1, pp. 145-196. IUPAC Technical Report*

Appendix 3: Statistical procedures used by ASPAC for its contemporary soil ILPP

Refer to Table 4 for a description of most statistical terms and their meaning. Of most significance is the "median / MAD" non-parametric, iterative procedure for identifying "outliers" (††) and "stragglers" (†) within datasets for particular tests and samples from multiple (typically 7 or greater) laboratories. See references in the body of the report for more details. Also, the median (μ) is regarded as a good estimate of the true mean, while the MAD; i.e., the median of the absolute deviations from the median, @), is regarded as a good estimate of the standard deviation.

After tabulating the data with a separate column for each sample result and a separate row for each laboratory, calculations were applied iteratively. Each iteration operated at an action level of [(X- μ)/f@] (called the "ASPAC Score" for convenience)> 2, where "X" is the value reported by the laboratory (one replicate assumed), "μ" is the median of the population of values, and "f@" is a code for the Gaussian distribution of the sample size "n", approximated by [0.7722 + 1.604/n * t, with t = the Student's "t" of5% (two tailed), with n-1 degrees of freedom]. Note that for program reports up to and including 2009-10, Student "t's" of 2.5% (two-tailed) were used.

Excluding any case when a laboratory reported no result (or a non-numeric value) [these were automatically excluded], the laboratories at first iteration with an "ASPAC score" >2 were rated as "outliers" (††). Following their removal (if any), the remaining population of laboratory data were subject to a second iteration involving a recalculation of the "ASPAC score". Where this was again >2, relevant laboratories were rated as "stragglers" (†). The revised Student "t" at 5% (two tailed) makes the test slightly stricter than previously.

The other statistics summarized in Table 4 were calculated on the same populations of data. Only the first (i) and second (final; f) values appear in the data summaries in Section 3.

Appendix 4: "Raw" 2018 soil data reported by laboratories for 12 samples across three "rounds"

These tabulations list the "raw" data provided by participating laboratories for each method, with unnecessary precision removed after completion of statistical tests to assist data presentation. Statistical "outliers" and "stragglers" are indicated by †† and †, respectively. The soil method codes are those of Rayment and Lyons (2011), referenced earlier.

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Air-Dry Moisture Content 2A1 (%)											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
8888	2A1	4.49	3.25	2.16 ††	4.06 ††	0.1	0.45	2.83	1.27 †	1.93	10.1	4.55	0.787
10156	2A1	1.02 ††	1.02 ††	1.02 ††	1.02 ††					1.63 ††	4.55 ††	2.81 ††	0.39 ††
10173	2A1	5.27	3.48	3.2	4.82	0.1	0.5	2.9	1.5	2.27	9.53	4.73	0.505 ††
10181	2A1	6.27	4.14	3.94	5.64	0.21 ††	0.64	3.48	2.15	2.89	11.3	5.5	0.983 †
21043	2A1	4.68	3.08	3.1	4.28	0.08	0.44	3.55	1.79	2.42	11.7	5.07	0.81
21088	2A1	1.3 ††	1.07 ††	0.9 ††	0.63 ††	0.03	0.2	2.42 †	1.18 †	2.12	8.51 †	4.06 ††	0.52 ††
21088	2A1					0.18 ††	0.64	3.45	2.05	2.32	8.93	4.52	0.64 †
21100	2A1	5.87	3.79	3.49	5.37	0.0628	0.459	3.26	1.62	2.39	9.72	4.8	0.77
21115	2A1	5.08	3.33	3.16	4.63	0.04	0.32	3.22	1.59	2.44	10.3	5.07	0.78
21138	2A1	6.08	3.77	3.28	5.14	0.084	0.368	3.25	1.53	2.4	10.5	4.76	0.69
21148	2A1					0.03	0.26	2.06 ††	1.21 †				
21182	2A1	5.6	3.7	3.5	4.9	0.005	0.8 ††	3.5	1.8	2.5	9.2	4.9	0.9
21193	2A1	5.6	3.85	3.62	5.48	0.04	0.45	3.27	1.75	2.6	11.2	5	0.86
21230	2A1	6.31	3.74	3.64	5.39	0.078	0.494	3.61	1.81	2.33	10.7	5.22	0.847
50005	2A1	5.98	3.49	3.48	5.3	0.06	0.466	3.27	1.79	2.16	6.97 ††	4.38	0.727
50007	2A1	2.2 ††	2.53 ††	1.63 ††	2.1 ††	0.067	0.6	3.69	1.8	2.72	10.5	5.34	0.846
50011	2A1	5.76	3.68	3.63	5.37	0.15	0.503	3.41	1.73	2.62	10.7	5.21	0.908
50012	2A1	6.3	3.94	3.78	5.31	0.046	0.37	3.37	1.91	2.7	12.3	5.43	0.909
50013	2A1	5.66	3.58	3.61	5.38	0.116	0.541	3.28	1.84	2.48	10.6	5	0.817
50014	2A1	5.63	3.83	3.5	5.45	0.076	0.444	3.21	1.84	2.42	11.6	5.13	0.853
50017	2A1	5.51	3.13	3.29	4.42	0.125	0.537	3.65	1.95	2.93	11.9	5.57	0.904
50018	2A1	4.97	2.87 †	2.89 †	4.83	0.085	0.353	2.93	1.53	2.03	8.61	4.33	0.62 †
50020	2A1	4.8	2.9 †	2.5 ††	4.2 †	0.1	0.4	2.4 †	1.4	2.5	10.6	5	0.73
50023	2A1	6.58	4.12	3.77	5.69	0.13	0.53	3.47	1.84	2.42	11.1	5.3	0.84
50024	2A1	5.68	3.72	3.33	5.17	0.039	0.402	2.89	1.65	2.51	11.9	4.92	0.73
50029	2A1	5.01	3.36	3.44	4.8	0.02	0.336	3.26	1.48	2.24	8.86	4.77	0.74
50030	2A1	5.67	3.96	3.57	5.19	0.11	0.52	3.31	1.99				
50031	2A1	6.4	3.9	3.7	5.1	0.06	0.46	3.9 †	2	2.6	11.5	5.2	0.9
50032	2A1	6.04	3.92	3.73	6.07	0.06	0.46	3.58	1.73	2.69	11	5.27	0.83

50033	2A1	6.17	3.97	3.73	5.83	0.06	0.33	3.15	1.72	3	11.3	5.24	0.77
50036	2A1	4.9	3.6	3.4	4.9			3.3	1.7	2.6	10.4	5.1	0.8
50037	2A1	4.96	2.86 †	2.88 †	4.83	0.086	0.352	2.92	1.53	2.04	8.6	4.32	0.61 †
50039	2A1	6.4	3.85	3.55	5.07	0.05	0.27	2.72	1.35	2.19	10.1	4.74	0.72
50044	2A1	4 †	3	2 ††	4 ††						10	5	
52434	2A1	5.5	3.5	3.3	4.75	0.01	0.24	2.64 †	1.52	2.04	8.4 †	3.96 ††	0.48 ††
52435	2A1	4.98	3.2	3.02	4.57	0.04	0.02 ††	0.14 ††	0.1 ††				
52436	2A1	6.13	3.92	3.74	5.37	0.07	0.85 ††	3.45	0.08 ††	2.3	9.55	4.49	0.76
52437	2A1	5.12	3.1	2.88 †	4.13 †					2.85	11.6	5.1	0.79
52526	2A1	5.5	5 ††	3.7	5			0.8 ††	0.5 ††	2.2	9.4	4.8	0.66
52527	2A1	5.8	3.3	3.2	5			3.6	2.2 †	1.98	9.18	4.52	
52558	2A1	6.1	4.1	3.6	5.5	0.02	0.21	2.74	1.11 †	1.91	10.9	4.69	0.565 †
52565	2A1					0.176 †	0.265	2.05 ††	1.09 ††	2.37	10.2	5.08	0.846
52569	2A1	0.062 ††	0.059 ††	0.038 ††	5.9	0.1	0.4	3.4	1.6				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Electrical conductivity 1:5 soil-water (3A1) dS/m											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	3A1					0.0257 ††	0.138 ††	0.0991 †	0.226	0.0238 ††	0.142 ††	0.102 ††	0.232 ††
10173	3A1	0.249 ††	0.165	0.124	0.201	0.0141	0.147 †	0.0968 †	0.213	0.105	0.219	0.143 †	0.119
10181	3A1	0.158	0.168	0.129	0.223	0.014	0.156	0.108	0.218	0.126	0.21	0.175	0.131
20204	3A1	0.16	0.17	0.13	0.209	0.015	0.16	0.115	0.241	130 ††	210 ††	180 ††	139 ††
21043	3A1	0.196 ††	0.186	0.145	0.258	0.046 ††	0.177 †	0.14 ††	0.245 †	0.125	0.192	0.196 †	0.123
21088	3A1	201 ††	179 ††	148 ††	260 ††	0.016	0.156	0.127 †	0.225	0.125	0.215	0.214 ††	0.121
21100	3A1	0.15	0.165	0.126	0.198	0.017	0.161	0.107	0.229	0.115	0.2	0.165	0.125
21115	3A1	0.151	0.171	0.126	0.199	12.5 ††	0.174 †	0.107	0.229	0.121	0.222	0.177	0.134
21138	3A1	0.143	0.164	0.125	0.197	0.01 †	0.16	0.1	0.21	0.11	0.19	0.16	0.13
21148	3A1					0.0129	0.156	0.112	0.229				
21178	3A1	0.16	0.19	0.13	0.21	0.013	0.16	0.11	0.23	0.117	0.208	0.166	0.132
21182	3A1	0.151	0.165	0.123	0.202	0.015	0.157	0.104	0.221	0.115	0.203	0.161	0.124
21190	3A1	0.193 †	0.198	0.149	0.256	0.0168	0.166	0.117	0.233	0.127	0.232	0.193 †	0.144
21193	3A1	0.161	0.178	0.135	0.219	0.012	0.154	0.107	0.224	0.11	0.188	0.157	0.119
21229	3A1	0.17	0.177	0.147	0.235	0.018	0.169	0.115	0.229	0.121	0.204	0.167	0.141
21230	3A1	0.142	0.156	0.118	0.185	0.012	0.142 †	0.093 †	0.2 ††	0.102 †	0.174 †	0.14 †	0.112 †
21232	3A1	0.15	0.17	0.13	0.21	0.016	0.17 †	0.11	0.223	0.11	0.19	0.16	0.13
21234	3A1									97 ††	174 ††	145 ††	103 ††
50005	3A1	0.167	0.192	0.136	0.22	0.0188 †	0.168	0.115	0.234	0.129	0.221	0.177	0.139
50007	3A1	0.16	0.17	0.13	0.23	0.018	0.154	0.106	0.211	0.115	0.205	0.178	0.127
50011	3A1	0.165	0.176	0.13	0.22	0.027 ††	0.16	0.117	0.214	0.168 ††	0.193	0.17	0.129
50012	3A1	0.188	0.172	0.14	0.241	0.0119	0.157	0.121 †	0.213	0.118	0.192	0.194 †	0.126
50013	3A1	0.183	0.182	0.137	0.238	0.011	0.156	0.112	0.224	0.121	0.212	0.183	0.131
50014	3A1	0.17	0.17	0.127	0.228	0.0146	0.166	0.109	0.231	0.119	0.21	0.168	0.131
50017	3A1	0.149	180 ††	0.134	0.209	0.0134	0.159	0.106	0.219	0.122	0.228	0.169	0.133
50018	3A1	0.151	0.174	0.124	0.202	0.0143	0.161	0.109	0.211	0.111	0.215	0.17	0.121
50019	3A1	0.145	0.191	0.134	0.218								
50020	3A1	0.145	0.165	0.115	0.195	0.02 †	0.15 †	0.11	0.22	0.11	0.18 †	0.16	0.13
50023	3A1	0.16	0.18	0.135	0.215	0.014	0.161	0.109	0.224	0.125	0.219	0.174	0.136
50024	3A1	0.177	0.201	0.147	0.23	0.0128	0.154	0.106	0.219	0.123	0.212	0.174	0.134
50025	3A1	0.148	0.164	0.123	0.205	0.014	0.161	0.109	0.219	0.112	0.2	0.163	0.128
50027	3A1	0.159	0.175	0.131	0.216	0.015	0.158	0.107	0.226	0.118	0.203	0.166	0.129
50029	3A1	0.133	0.131 ††	0.11 ††	0.174	0.0096 †	0.131 ††	0.103	0.199 ††	0.0938 ††	0.176 †	0.138 †	0.106 ††
50030	3A1	0.156	0.172	0.131	0.201	0.013	0.156	0.108	0.217				
50031	3A1	0.171	0.193	0.142	0.235	0.014	0.155	0.106	0.223	0.117	0.205	0.176	0.133
50032	3A1	0.16	0.186	0.132	0.216	0.015	0.163	0.112	0.24	0.131	0.238 †	0.189	0.142

50033	3A1	0.153	0.166	0.127	0.204	0.015	0.158	0.117	0.232	0.103 †	0.171 †	0.141 †	0.122
50036	3A1	0.168	0.189	0.138	0.228	0.011	0.177 †	0.116	0.232	0.114	0.206	0.164	0.126
50037	3A1	0.152	0.173	0.123	0.201	0.0144	0.162	0.108	0.211	0.112	0.214	0.169	0.122
50042	3A1	0.132	0.149 †	0.089 ††	0.167 †	0.014	0.116 ††	0.107	0.216	0.056 ††	0.141 ††	0.112 ††	0.092 ††
50044	3A1	0.21 ††	0.2	0.15	0.23	0.014	0.16	0.1	0.22	0.13	0.23	0.18	0.13
52283	3A1	0.179	0.203 †	0.145	0.241	0.02 †	0.116 ††	0.103	0.161 ††	0.116	0.223	0.178	0.134
52387	3A1	0.19	0.231 ††	0.164 ††	0.27 †								
52434	3A1	0.15	0.18	0.13	0.2	0.01 †	0.16	0.11	0.24	0.12	0.21	0.17	0.13
52435	3A1	0.14	0.16	0.13	0.22	0.02 †	0.16	0.12 †	0.23				
52436	3A1	0.18	0.15	0.1 ††	0.17 †	0.02 †	0.17 †	0.12 †	0.23	0.115	0.217	0.169	0.151 †
52491	3A1	0.146	0.085 ††	0.014 ††	0.208	0.0168	0.062 ††	0.0634 ††	0.244 †	0.125	0.224	0.173	0.14
52494	3A1	0.17	0.184	0.139	0.224	0.017	0.166	0.11	0.228	0.131	0.207	0.199 †	0.138
52526	3A1	0.176	0.188	0.14	0.237	0.0003 ††	0.001 ††	0.00128 ††	0.00236 ††	0.15 ††	0.22	0.23 ††	0.15 †
52527	3A1	0.168	0.174	0.136	0.219	0.057 ††	0.196 ††	0.128 †	0.246 †	0.128	0.234	0.256 ††	0.136
52558	3A1	0.168	0.182	0.152 †		0.027 ††	0.183 ††	0.125 †	0.212	0.121	0.205	0.174	0.138
52565	3A1					0.0177	0.183 ††	0.115	0.257 ††	0.121	0.215	0.159	0.123
52569	3A1	0.56 ††	0.37 ††	0.3 ††	0.58 ††	15 ††	170 ††	120 ††	240 ††				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Soil pH, 1:5 soil-water (4A1 + 4A3)											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	4A1					5.59	7.76 †	7.32	5.14	5.31 ††	7.32 ††	7.03 ††	4.9 ††
10166	4A1	7.1	6.5 †	7.3	8.3					5.8	5.7	8.1	5.8
10173	4A1	7.28	6.73	7.07	8.42	5.79	7.52	7.12	5.13	5.73	5.6	7.92	5.73
10181	4A1	7.21	6.66	7.41	8.41	5.73	7.66	7.36	5.08	5.89	5.85 †	8.32	5.85
20204	4A1	7.2	6.71	7.17	8.32	5.83	7.41	7.1	4.86	5.74	5.69	7.93	5.63
21043	4A1	7.27	6.68	7.32	8.42	5.12 †	7.28 †	7.03	4.84	5.79	5.76	8.3	5.71
21088	4A1	7.15	6.61	7.21	8.28	5.49	7.59	7.13	5.12	5.94	5.87 †	8.27	5.81
21100	4A1	7.27	6.68	7.36	8.43	6.16 ††	7.58	7.16	5.04	5.79	5.77	8.23	5.72
21115	4A1	7.25	6.72	7.35	8.31	5.61	7.47	7.22	4.97	5.83	5.71	8.09	5.73
21138	4A1	7.27	6.75	7.41	8.42	5.6	7.6	7.3	5	5.84	5.71	8.22	5.74
21148	4A1					5.88	7.02 ††	5.91 ††	5.04				
21178	4A1	7.17	6.64	7.34	8.34	5.45	7.65	7.25	4.9	5.75	5.74	8.19	5.67
21182	4A1	7.1	6.7	7.4	8.2	6 †	7.6	7.4	5.1	6 †	5.7	8	5.8
21190	4A1	6.87 ††	6.43 ††	7.13	7.73 ††	8.89 ††	7.35	7.64 ††	5.39 ††	6.24 ††	6.11 ††	8.22	6.16 ††
21193	4A1	7.05	6.47 †	7.14	8.19	5.62	7.65	7.25	4.97	5.89	5.81	8.22	5.83
21229	4A1	7.22	6.62	7.31	8.37	5.68	7.6	7.24	5.05	5.87	5.8	8.23	5.78
21230	4A1	7.18	6.66	7.24	8.34	5.36	7.47	7.24	4.96	5.69	5.73	7.87	5.7
21232	4A1	7.15	6.63	7.24	8.38	5.44	7.33	6.86 ††	5.02	5.79	5.73	7.85 †	5.81
21234	4A1	6.27 ††								5.3 ††	5.28 ††	7.09 ††	5.01 ††
50005	4A1	7.26	6.67	7.34	8.45	5.86	7.39	6.86 ††	4.82 †	5.7	5.68	8.17	5.64
50007	4A1	7.24	6.66	7.4	8.37	5.6	7.6	7.29	4.94	5.75	5.69	7.84 †	5.78
50011	4A1	7.21	6.63	7.44	8.29	5.74	7.54	7.32	5.11	5.75	5.7	8.15	5.73
50012	4A1	7.21	6.7	7.34	8.37	5.58	7.58	7.22	5.03	5.86	5.82	8.16	5.84
50013	4A1	7.06	6.6	7.21	8.28	5.32	7.55	7.17	4.94	5.69	5.64	8	5.63
50014	4A1	7.17	6.63	7.27	8.38	5.2 †	7.49	7.02 †	4.88	5.63	5.63	8.02	5.6
50017	4A1	7.18	6.94 ††	7.44	8.29	5.44	7.31	7.46 †	5.06	5.72	5.63	8.11	5.7
50018	4A1	7.18	6.48 †	7.36	8.44	5.56	7.51	7.17	5	5.78	5.68	8.26	5.71
50019	4A1	7.5 ††	7.2 ††	7.6 †	7.6 ††								
50020	4A1	7.2	6.88 ††	7.15	7.93 ††	6.63 ††	7.43	7.69 ††	5.21 ††	6.05 ††	5.94 ††	8.19	5.96 †
50023	4A1	7.15	6.6	7.3	8.2	5.47	7.56	7.12	4.93	5.47 ††	5.47 ††	7.88	5.42 ††
50024	4A1	7.15	6.25 ††	6.68 ††	6.43 ††	5.54	7.66	7.15	4.95	5.72	5.71	8.14	5.74
50025	4A1	7.33	7 ††	7.43	7.93 ††	7.6 ††	7.45	7.45 †	5	6.4 ††	5.76	7.72 †	6.1 ††
50027	4A1	7.23	6.67	7.35	8.39	5.81	7.52	7.22	5.01	5.85	5.74	8.15	5.77
50029	4A1	7.33	6.75	7.36	8.47	5.51	7.55	7.22	5.02	5.85	6 ††	8.39	5.71
50030	4A1	7.35	6.73	7.48	8.49	5.57	7.71	7.08	5.04				
50031	4A1	7.1	6.6	7.2	8.3	5.6	7.7	7.3	5	5.8	5.7	8.2	5.7

50032	4A1	7.16	6.66	7.27	8.35	5.57	7.49	7.2	5.08	5.66	5.66	7.91	5.64
50033	4A1	7.08	6.55	6.84 ††	8.23	5.67	7.55	7.18	5	5.79	5.77	8.28	5.77
50036	4A1	7	6.6	7 †	8 †	5.5	7.5	7.7 ††	5.1	5.5 ††	5.6	7.8 †	5.6
50037	4A1	7.19	6.49 †	7.35	8.43	5.57	7.5	7.16	4.99	5.79	5.69	8.27	5.72
50042	4A1	7.63 ††	7.17 ††	8.02 ††	8.91 ††	5.43	7.45	7.38	4.91	6.58 ††	5.61	7.93	5.48 †
50044	4A1	7.7 ††	7.1 ††	7.4	8.2	5.4	7.4	7.2	4.9	5.8	5.6	7.9	5.8
52283	4A1	7.1	6.57	7.14	8.25	5.52	7.86 ††	7.33	5.16	5.7	5.63	8.06	5.64
52384	4A3									5.7	5.7	8.1	5.5 †
52387	4A1	7.15	6.6	7.25	8.28								
52434	4A1	7.25	6.76	7.22	8.02 †	5.53	7.38	7.28	4.8 ††	5.57 †	5.53 †	8.08	5.65
52435	4A1	6.72 ††	6.26 ††	7.02 †	7.82 ††	5.44	7.47	7.03	4.91				
52436	4A1	7.12	6.54	7.25	8.18	5.44	7.15 ††	6.68 ††	4.83 †	5.74	5.69	8.06	5.65
52437	4A1	6.41 ††	6.53	7.05	7.15 ††					6.33 ††	5.92 ††	6.75 ††	6.35 ††
52491	4A1	6.51 ††	6.63	7.03 †	7.66 ††	5.32	7.48	7.35	4.95	5.84	5.73	8.35	5.74
52494	4A1	7.14	6.63	7.31	8.36	5.38	7.57	7.28	4.94	5.74	5.65	8.23	5.62
52526	4A1	7	6.6	7.2	8.3	6 †	7.5	7.2	5	5.8	5.7	8.1	5.7
52527	4A1	7.4 †	6.8 †	7.5	8.5 †	5.5	7.5	7.2	5	6.5 ††	6.2 ††	7.4 ††	6.3 ††
52558	4A1	7.3	6.8 †	7.3	8.3	6.8 ††	7.2 ††	7.3	5.3 ††	5.84	5.77	8.29	5.73
52565	4A1					5.78	7.26 †	7.44 †	5.03	5.85	5.86 †	8.46 †	5.89
52569	4A1	7.1	6.7	7.4	8.2	5.6	7.4	7.2	4.9				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: pH CaCl2 - Pooled (4B1 + 4B2 + 4B3 +4B4)											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10166	4B1	6.6	6	6.2	7.4 †					5	4.9	7.1	5
10181	4B2	6.6	5.96	6.27	7.67	5.09	7.2	6.16	4.51	5.08	4.95	7.35	5.1
20204	4B2	6.88 ††	6.28 ††	6.44 †	7.71	5.28 †	7.09	6.24	4.59	5.19 †	4.94	7.27	5.08
21043	4B1	6.68	5.99	6.3	7.75	4.94	6.97	5.97	4.38	4.85 ††	4.8 †	7.22	4.84 †
21088	4B2	6.71	6.02	6.3	7.76	5.03	7.18	6.03	4.56	5.12	5.04 †	7.39	5.07
21100	4B4	6.8 †	6.15 ††	6.45 †	7.82	5.44 ††	7.38	6.27 †	4.65 †	5.12	4.96	7.45 †	5.06
21138	4B3	6.75	6.09 †	6.3	7.67	5	7.2	6.1	4.5	4.92 †	4.82 †	7.2	4.84 †
21178	4B3	6.66	5.98	6.3	7.64	4.85	7.05	6.05	4.4	5.03	4.93	7.23	4.98
21182	4B1	6.5	6	6.2	7.6	5.3 †	7.1	6.1	4.5	5.05	4.88	7.11	5.09
21193	4B2	6.62	6.07	6.28	7.71	5.01	7.11	6.23	4.49	5.16 †	5.01	7.26	5.1
21229	4B2	6.66	5.99	6.33	7.76	5.12	7.11	6.11	4.49	5.09	5	7.3	5.05
21230	4B2	6.7	6.01	6.23	7.73	4.87	6.96	6.07	4.45	4.98	4.89	6.99	4.95
21232	4B2	6.64	6.04	6.32	7.74	5.06	7.12	6.11	4.51	5.11	4.92	7.26	5.08
50005	4B1	6.58	5.9	6.16	7.47	4.96	7.22	6.08	4.41	4.87 ††	4.63 ††	6.96 †	4.81 †
50005	4B2	6.62	5.94	6.19	7.65	4.93	7.24	5.97	4.41	4.96	4.8 †	7.07	4.9
50011	4B2	6.5	5.9	6.23	7.58	5.47 ††	7.17	6.27 †	4.55	5.04	4.91	7.19	4.97
50012	4B4	6.55	5.96	6.21	7.66	4.88	7.1	6.06	4.46	5.01	4.88	7.13	4.97
50013	4B2	6.69	5.98	6.26	7.71	4.81	7.02	6.02	4.44	4.96	4.85	7	4.92
50014	4B1	6.62	5.95	6.27	7.64	4.77	6.94	5.96	4.39	5.03	4.9	7.09	4.99
50017	4B2	6.58	6.14 ††	6.51 ††	7.61	4.86	6.88	6.2	4.47	5.02	4.94	7.25	4.99
50018	4B2	6.67	6.01	6.29	7.78	4.91	7.19	6.08	4.48	5.01	4.93	7.35	5
50019	4B1	6.15 ††	5.9	6.1 †	6.8 ††								
50020	4B4	6.79	6.68 ††	6.71 ††	7.39 †	5.79 ††	6.93	6.64 ††	4.7 ††	5.33 ††	5.04 †	7.27	5.26 ††
50023	4B2	6.8 †	6	6.3	7.7	4.99	7.38	6.19	4.56	5.16 †	5.04 †	7.41	5.17 †
50024	4B1	6.02 ††	5.97	6.09 †	6.29 ††	4.91	7.2	6.14	4.47	5.03	4.86	7.23	5
50025	4B1					7.6 ††	7.45 ††	7.45 ††	5 ††				
50027	4B1	6.59	5.96	6.25	7.58	4.86	6.98	6	4.42	5.04	4.91	7.2	4.99
50027	4B2	6.66	5.98	6.28	7.73	4.91	7.09	6	4.43	5.03	4.91	7.19	4.96
50029	4B3	6.58	5.95	6.24	7.61	4.83	6.86	6.03	4.44	5.03	4.93	7.23	4.97
50030	4B1	6.68	5.98	6.38	7.7	4.79	7.08	6.03	4.46				
50036	4B1									5	4.9	7	5
50037	4B2	6.66	6.02	6.3	7.76	4.92	7.2	6.07	4.49	5.02	4.92	7.36	5.01
50044	4B2	6.8 †	6.3 ††	6.4	7.4 †	4.8	7	6.1	4.5	5.2 ††	5	7.1	5.4 ††
52317	4B3	6.55	6	6.29	7.44	5.04	6.9	6.06	4.42	5.07	4.95	7.19	5.02
52387	4B3	6.53	5.85 ††	6.15	7.42								
52491	4B2	6.05 ††	6.14 ††	6.58 ††	7.04 ††	4.88	7.07	5.93 †	4.29 ††	4.83 ††	4.69 ††	7.08	4.84 †

52494	4B1	6.48	5.86 †	6.14	7.51	4.7	7.13	6.09	4.43	5.04	4.94	7.34	5.01
52526	4B1	6.7	6.1 †	6.4	8 ††	5.5 ††	7.1	6.1	4.5	5.2 ††	5.1 ††	7.2	5.4 ††
52527	4B2	6.6	5.9	6.2	7.6	4.9	7	6.1	4.5	5.1	4.9	7.2	5.1
52558	4B1	6.6	5.9	6.2	7.6	5.1	6.8	6.2	4.6	5.02	5.04 †	6.49 ††	4.94
52565	4B1					4.5 ††	5.94 ††	5.15 ††	4.68 ††	5.08	5.01	6.73 ††	5.27 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Water Ext Cl - Pooled (5A1 + 5A2 + 5A3) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	5A1	16.9	21	41	7.9	10.8 †	25.2	26.6	58.2	67.7	34.4	26.1	46.3
21043	5A1	13.6	6.52	30.4	8.7	4.03	17.5	15.9	40.7	51.2	18	20	24.1
21088	5A1	14	22	40	6.3	2	20.7	22.1	51.2	59	31.7	24.8	30.7
21100	5A3	15.5	22.3	49.4 †	10.4	5.07	28.2	76.5 ††	45.3	61	46	43 ††	35
21115	5A2	11.5	10.4	40.4	6.1	2.7	23.8	29.4	46	55.6	24.5	30.4	29.5
21148	5A1					1.65	17.3	12.4	42.4				
21178	5A3	9	6.6	27	5	2	16	13	41	47	15	17	24
21182	5A1	15	12	47	9	0.5	23	35	51	66.6	38.9	46.2 ††	39.3
21193	5A1	17.5	19	36.4	13.3	18 ††	32 †	39.2 †	49.1	53	44	30	31
21229	5A2	16	14.1	36.7	11.5	5.46	21.3	16.3	45.5	57.1	22.7	23.9	33.9
21230	5A1	3.85 ††	1.77	18.7	2.21	3.33	18.5	16.1	44.4				
21232	5A1	13.9	6.87	31.1	9.2	6.78	23.3	24.4	47.1	51.8	20.8	23.8	26
50005	5A1	30.4 ††	12.9	86.7 ††	24.6 ††	83.7 ††	46.9 ††	48.7 ††	118 ††	54.6	45	31.3	19.2
50011	5A1	11.5	7.22	27.4	7.4	2	14.8	14.3	40.4	44.3	16.4	17.2	21.7
50012	5A2	11	6.5	31	6.3	3.4	17	16	43	50	19	19	25
50013	5A1	17	12.6	37.4	9.14		25.8	24.9	56	59.9	38.8	29	35.3
50014	5A1	15.3	9.07	32	8.94	4.7	19.4	16.3	45.8	58.2	23.6	24.2	28.6
50018	5A2	11.7	5.84	31	5.72	4.52	14.6	10.4	41.4	55.5	17.5	18.8	24.4
50020	5A2	39.4 ††	42.6 ††	71 ††	27.6 ††		97 ††	116 ††	98 ††	80 ††	31	66 ††	52 ††
50023	5A1	11.9	6.3	29.7	7.3	3.2	18	17	43	53.9	21	21.4	27.5
50024	5A3	13.9	6.73	33.9	6.75	3.54	19.7	17.5	46.8	58.2	23.3	27.9	32.9
50025	5A1	14.5	10.3	19.3	12	26 ††	25	32	38	93 ††	46	43 ††	26
50027	5A1	14	6	32	9	4	20	19	47	57	22	23	30
50029	5A2	25.6 ††	19.6	38.6	17.1 ††	7.32	47.3 ††	33	39.6	43.5	48.1	46.3 ††	31.8
50031	5A1	18	12	33	11	6.6	21	19	46	53	24	24	30
50032	5A1	21	19	44	22 ††	8.7 †	34.5 †	28.5	57.5	74.5 ††	48	51 ††	44
50036	5A1						30	30	60 †	60	40	30	40
50037	5A2	11.6	5.81	30.8	5.7	4.51	14.5	10.2	41.6	55.4	17.4	18.9	24.6
50042	5A1	12.2	8.34	20	11	14 ††	65 ††	103 ††	75 ††	108 ††	162 ††	109 ††	80 ††
50044	5A2	16	14	36	9	3	23	23	50	63	32	23	30
52494	5A1	19.7	8.7	27.2	7.7	7.5	17.9	14.7	43.7	53.2	2.86	2.3 ††	27.3
52526	5A1	10	10	40	5.27		20	20	50	70 †	30	30	40
52527	5A1	20	60 ††	40	620 ††		27.6	27.1	51.1	60.5	36.8	27.6	38.2

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Organic Carbon — W&B (6A1) %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	6A1	2.79 ††	4 ††	0.35 ††		0.08	0.58	0.68	2.05	2.65	11.4	1.03 ††	1.81
21043	6A1	2.15	2.71	0.89	0.597	0.379 ††	0.719	0.953 †	2.28	2.62	14.9	0.646	1.49
21100	6A1	1.93	2.68	0.848	0.647	0.353 ††	0.857 †	0.905	2.07	3.01 †	16 †	0.88	1.7
21138	6A1	2.28	3.02	0.96	0.648	0.12	0.66	0.77	2.15	2.81 †	13.6	0.71	1.45
21148	6A1					0.197 ††	0.641	0.729	1.67 ††				
21178	6A1	1.9	2.66	0.86	0.58	0.1	0.69	0.77	2.1	2.4 †	12	0.6	1.32
21190	6A1	1.99	3.33	1.07	0.69	0.189 ††	0.854 †	1.07 ††	2.64 ††	3.64 ††	16.7 ††	0.99 ††	1.94 †
21193	6A1	2.42	3.07	1.09	0.87 †	0.097	0.61	0.72	2.18	2.62	9.31 †	0.66	1.37
21229	6A1	2.05	2.79	0.912	0.627	0.11	0.687	0.716	2.14	2.75	12.4	0.668	1.43
21232	6A1	2.22	2.97	1	0.74	0.038 †	0.59	0.66	2.18	2.6	12.8	0.8	1.57
21234	6A1	1.89	2.65	0.82	0.61					3.14 ††	14.8	0.728	1.83
50005	6A1	2.34	3.26	1.05	0.708	0.121	0.733	0.804	2.41	2.89 †	13.3	0.705	1.62
50007	6A1	4.93 ††	5.66 ††	20.4 ††	1.7 ††	0.14	0.75	0.91	2.57 ††	2.63	13.3	0.86	1.45
50011	6A1	2.24	2.98	1.06	0.78	0.132	0.693	0.83	2.36	2.92 †	5.85 ††	0.666	1.52
50012	6A1	2.21	2.89	1.01	0.706	0.0908	0.715	0.739	2.32	2.76	12.3	0.755	1.5
50013	6A1	2.71 †	3.73 ††	1.33 ††	1 ††								
50014	6A1	2.28	2.99	1.05	0.843 †	0.0807	0.698	0.858	2.12	2.64	13.1	0.719	1.67
50020	6A1	2.58	2.97	1.95 ††	1.93 ††	0.16 †	0.78	0.95 †	2.35	2.99 †	14	1.09 ††	1.95 †
50025	6A1	1.81	2.59	0.845	0.6	0.07	0.691	0.65	2.09	2.24 ††	7.24 ††	0.591	1.23
50027	6A1	2.18	2.75	0.96	0.7	0.09	0.73	0.79	2.26	2.7	12.3	0.73	1.5
50029	6A1	2.04	2.69	0.97	0.61	0.11	0.78	0.78	2.07	2.66	12.2	0.79	1.55
50030	6A1	2.15	2.78	0.95	0.64	0.097	0.706	0.732	2.08				
50031	6A1	2.43	3	1.07	0.88 †	0.1	0.87 †	0.79	2.28	2.64	0.78 ††	1.79 ††	12.2 ††
50032	6A1	2.09	2.64	0.89	0.66	0.09	0.618	0.73	1.98	2.54	12.8	0.66	1.36
52384	6A1									6.31 ††	13.8	1.52 ††	2.89 ††
52434	6A1	2.54	3.65 ††	1.19	0.84 †	0.15 †	0.79	0.82	2.56 ††	3.1 ††	16.3 †	0.79	1.72
52435	6A1	2.33	2.88	1.07	0.69	0.11	0.63	0.73	2.07				
52436	6A1	2.65	3.7 ††	1.12	0.78	0.125	0.832	0.956 †	2.79 ††	2.64	12.2	0.82	1.38
52437	6A1	2.32	3.35	0.995	0.663					3.02 †	14.8	0.77	1.66
52569	6A1	0.0018 ††		0.012 ††	0.05 ††	0.14	1.09 ††	1 ††	2.6 ††				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Carbon — Dumas (6B2) %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	6B2	2.17 ††	3.23	0.917 ††	0.741 ††	0.204 ††	0.71	0.879	2.45	3.08	14.8	0.754	1.49 ††
8888	6B2	2.42	3.39	1.22	1	0.14	0.778	1.08 ††	2.73 †				
8888	6B2									3.03	16.1	0.857	1.62
10156	6B2	2.52	3.28	1.08	0.843	0.101	0.654	0.897	2.51	2.92	15.1	0.766	1.6
10173	6B2	2.16 ††	3.27	0.956 ††	0.789 †	0.14	0.638	0.823	2.58	2.9	14.9	0.617 ††	1.53
10181	6B2	2.64	3.38	1.13	0.85	0.162	0.726	0.961	2.56	3.07	16	0.846	1.6
20204	6B2	2.61	3.36	1.16	0.921	0.15	0.77	0.99	2.78 ††	3.35 ††	15.7	0.89	2.02 ††
21043	6B2	2.66	3.45	1.13	0.91	0.131	0.709	0.979	2.58	2.9	15.9	0.82	1.59
21100	6B2	2.7	3.46	1.21	1.01 †	0.217 ††	0.764	1.04 †	2.55	3.01	16	0.88	1.7
21138	6B2	2.55	3.34	1.13	0.893	0.12	0.69	0.9	2.42 †	2.95	13.6	0.79	1.55
21229	6B2	2.27 ††	3.39	1.11	0.928	0.142	0.77	0.979	2.67	3.03	14	0.861	1.75
21230	6B2	2.65	3.39	1.13	0.902	0.115	0.678	0.931	2.6	2.98	15.7	0.794	1.53
21232	6B2	2.26 ††	3.35	1.15	0.96	0.14	0.74	1.08 ††	2.59	3	11.7 ††	0.89	1.65
50005	6B2	2.44	3.24	1.21	0.908	0.152	0.723	0.949	2.69	3.18	14.9	0.712	1.63
50011	6B2	2.59	3.34	1.09	0.86	0.132	0.693	0.922	2.68	3.21	15.5	0.706	1.65
50012	6B2	2.73	3.56	1.16	0.983	0.135	0.685	0.93	2.63	3.14	16.1	0.786	1.65
50014	6B2	2.73	3.51	1.17	0.927	0.104	0.675	0.933	2.57	3.01	16.6	0.814	1.59
50017	6B2	2.49	3.33	1.08	0.873	0.198 ††	0.689	0.906	2.9 ††	3.11	16.3	0.804	1.75
50024	6B2	2.62	3.47	1.13	0.92	0.122	0.671	0.905	2.51	3	14.2	0.767	1.76 †
50029	6B2	2.59	3.52	0.664 ††	0.353 ††	0.01 ††	0.429 ††	0.704 ††	2.47	2.88	16.4	0.152 ††	1.2 ††
50030	6B2	2.8	3.72 ††	1.18	0.93	0.11	0.77	0.9	2.58				
50032	6B2	2.65	3.5	1.11	0.93	0.198 ††	0.738	0.986	2.56	3.09	16.5	0.848	1.63
50033	6B2	2.66	3.39	1.12	0.89	0.095	0.65	0.9	2.54	2.95	16.1	0.79	1.58
50039	6B2	2.67	3.46	1.14	0.91	0.17 †	0.71	0.96	2.58	3.17	14.5	0.78	1.62
52283	6B2					0.126	0.661	0.869	2.62	2.99	15.5	0.731	1.61
52387	6B2	2.24 ††	2.85 ††	0.98 ††	0.8 †								
52491	6B2	2.51	3.31	1.09	0.851	0.116	0.722	0.961	2.79 ††	3.03	15.3	0.796	1.72
52543	6B2	2.41	3.31	1.05	0.829					3.12	13.7	0.756	1.64
52565	6B2					0.12	0.793	0.969	2.52	3.21	15.5	0.8	1.67

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Organic Carbon - Pooled (6B1 + 6B3 + 6B5) %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
20204	6B3	1.63 ††	2.26 ††	0.77 ††	0.505 ††	0.1	0.63	0.77 ††	2.08 ††	2.97	12.6	0.78	1.63
21088	6B1	2.36	3.05 †	1.15	0.8	0.118	0.839 ††	0.863	2.51	3.16	14.2	0.815	1.6
21100	6B3	2.7	3.53	1.16	0.831	0.148	0.685	1.04 ††	2.69	2.99	16	0.83	1.62
21138	6B3	2.62	3.46	1.17	0.789	0.12	0.69	0.9	2.42	2.91	14.8	0.81	1.53 †
21182	6B1					0.07 ††	0.77	0.9	2.39 †				
21182	6B1	2.36	3.07 †	1.07	0.76					2.93	14.4	0.72	1.5 ††
21230	6B3	2.59	3.37	1.12	0.775	0.116	0.661	0.922	2.59	2.97	15.7	0.783	1.52 ††
50005	6B3	2.04 ††	3.26	0.903 ††	0.632 †	0.147	0.717	0.935	2.6	3.15	14.7	0.693	1.62
50011	6B3	2.4	3.22	1.06	0.8	0.132	0.693	0.88	2.41	2.98	5.85 ††	0.706	1.6
50012	6B3	2.67	3.54	1.21	0.853	0.131	0.684	0.945	2.55	2.99	16.5	0.766	1.59
50013	6B3	1.83 ††	2.39 ††	0.915 ††	0.656 †								
50014	6B3	2.56	3.36	1.1	0.778	0.0921 †	0.642	0.914	2.53	3.07	16.1	0.78	1.57
50018	6B3	2.49	3.41	1.08	0.86	0.121	0.682	0.908	2.49	2.99	14	0.732	1.54 †
50023	6B3	2.7	3.5	1.19	0.87	0.13	0.67	0.93	2.55	3.05	16.1	0.77	1.6
50024	6B1	2.61	3.53	1.15	0.92	0.132	0.738	0.902	2.59				
50030	6B1	2.4	3.09 †	1.1	0.74	0.107	0.719	0.88	2.42				
50032	6B3	2.63	3.49	1.09	0.84	0.198 ††	0.738	0.986	2.56	3.06	15.3	0.768	1.61
50036	6B1						0.9 ††	1 †	2.6	3.2 †	13.7	0.8	1.6
50037	6B3	2.48	3.42	1.09	0.861	0.12	0.681	0.907	2.49	2.98	14	0.734	1.54 †
50039	6B3	2.67	3.46	1.14	0.82	0.17 †	0.71	0.96	2.58	3.17	14.5	7.54 ††	1.62
52526	6B1	2.5	3.5	1.2	0.7		0.8 †	0.8 †	2.3 ††	2.6 ††	13.9	0.6 ††	1.6
52527	6B3	2.5	3.4	1.1	0.788		0.782 †	0.961	2.53	3.37 ††	14.7	0.72	1.73 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total N — Pooled (7A1 + 7A2) %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10181	7A2	0.214	0.298	0.092	0.082	0.006	0.037	0.078	0.195	0.179	1.04	0.0801	0.119
21088	7A2	0.206	0.312	0.089	0.077	0.0036	0.0282	0.0666	0.174	0.166	0.964	0.08	0.118
21138	7A2						0.031	0.077	0.181	0.178	1.27	0.083	0.13
21148	7A1					0.0018	0.0103	0.029 †	0.0642 ††				
21178	7A1	0.21	0.31	0.103	0.077	0.002	0.036	0.084	0.19	0.168	0.37 ††	0.072	0.105
21190	7A1	0.222	0.335	0.102	0.074	0.042 †	0.07 ††	0.13 †	0.242 ††	0.201	1.29	0.104 †	0.141
21229	7A2	0.21	0.31	0.129 †	0.09	0.014 †	0.018	0.079	0.198	0.186	1.06	0.093 †	0.137
21232	7A1	0.18 †	0.31	0.096	0.087	0.023 †	0.058 †	0.101	0.215	0.19	1.09	0.09	0.14
21234	7A1	0.203	0.307	0.096	0.072					0.181	1.08	0.079	0.134
50007	7A1	0.213	0.321	0.095	0.078	0.006	0.036	0.086	0.195	0.18	1.2	0.8 ††	0.131
50012	7A2	0.206	0.309	0.085	0.069					0.177	1.24	0.0782	0.128
50014	7A2	0.231 ††	0.35 ††	0.105	0.078	0.008	0.0251	0.0857	0.212	0.195	1.26	0.084	0.143
50031	7A1					0.006	0.043	0.097	0.209	0.165	1.33	0.082	0.118
50036	7A1									0.157	1.15	0.072	0.112
50044	7A1	0.2	0.31	0.078	0.064	0.0028	0.028	0.07	0.18	0.16	1.3	0.066 †	0.11
52436	7A1	0.21	0.29	0.1	0.08	0.04 †	0.053 †	0.107	0.239 ††				
52437	7A1	0.15 ††	0.26 ††	0.07	0.05 †					0.16	1.05	0.07	0.12
52543	7A1									0.2	1.36	0.076	0.132
52569	7A1	0.012 ††	0.019 ††	0.55 ††	0.41 ††	0.01	0.03	0.05	0.18				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total N – Dumas (7A5) %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	7A5	0.172 ††	0.303	0.073 ††	0.058 ††	0.021 †	0.055 ††	0.101	0.21	0.188	1.22	0.07	0.124
8888	7A5	0.204	0.334	0.096	0.091	0.004	0.038	0.086	0.194	0.203 †			
8888	7A5										1.35	0.092	0.144
10156	7A5	0.214	0.318	0.093	0.077	0.003	0.0316	0.0832	0.2	0.186	1.23	0.087	0.139
10173	7A5	0.172 ††	0.305	0.089	0.067	0.04 ††	0.04	0.103	0.213	0.186	1.25	0.0733	0.137
10181	7A5	0.221	0.324	0.095	0.079	0.02 †	0.05	0.097	0.21	0.199	1.32	0.093	0.136
20204	7A5	0.229	0.333	0.108 †	0.094 †	0.015	0.0462	0.105	0.235	0.209 ††	1.3	0.094	0.153
21043	7A5	0.223	0.332	0.096	0.082	0.006	0.037	0.09	0.199	0.174 †	1.31	0.081	0.126
21088	7A5					0.000	0.0292	0.0799	0.191	0.185	1.21	0.0719	0.121
21100	7A5	0.213	0.342	0.115 ††	0.069	0.017	0.0357	0.0857	0.193	0.177	1.31	0.08	0.127
21138	7A5	0.202	0.3	0.093	0.076								
21182	7A5	0.207	0.295 †	0.094	0.080	0.006	0.0414	0.0956	0.215	0.228 ††	1.31	0.0956	0.152
21229	7A5	0.22	0.319	0.131 ††	0.093 †	0.029 ††	0.0514 †	0.087	0.216	0.185	1.19	0.0842	0.139
21230	7A5	0.226	0.333	0.101	0.084	0.008	0.0414	0.0937	0.212	0.18	1.27	0.0819	0.121
50005	7A5	0.21	0.256 ††	0.030 ††	0.031 ††	0.000	0.0314	0.0887	0.227	0.195	1.26	0.0925	0.133
50011	7A5	0.209	0.313	0.098	0.084	0.016	0.044	0.093	0.22	0.188	1.21	0.079	0.133
50012	7A5	0.22	0.329	0.093	0.081	0.014	0.0322	0.0907	0.216	0.209 ††	1.42	0.113 ††	0.171 ††
50013	7A5	0.206	0.308	0.095	0.080	0.003	0.0349	0.083	0.206	0.185	1.11	0.083	0.144
50014	7A5	0.225	0.333	0.099	0.083	0.019 †	0.0553 ††	0.114 ††	0.222	0.193	1.35	0.092	0.137
50017	7A5	0.219	0.335	0.097	0.079		0.0373	0.0881	0.21	0.194	1.37	0.0794	0.141
50018	7A5	0.214	0.328	0.094	0.082	0.006	0.042	0.095	0.203	0.189	1.19	0.0805	0.126
50019	7A5	0.209	0.33	0.094	0.072								
50020	7A5	0.228	0.348	0.115 ††	0.1 ††	0.06 ††	0.06 ††	0.1	0.22	0.06 ††	0.06 ††	0.1 †	0.22 ††
50023	7A5	0.235	0.34	0.1	0.11 ††	0.01	0.04	0.09	0.21	0.2	1.3	0.09	0.14
50024	7A5	0.233	0.353	0.102 †	0.099 ††	0.009	0.045	0.096	0.224	0.19	0.192 ††	0.093	0.148
50027	7A5	0.203	0.317	0.1	0.09	0.01	0.042	0.103	0.22	0.2	1.21	0.098	0.127
50029	7A5	0.221	0.329	0.089	0.073	0.046 ††	0.0613 ††	0.103	0.2	0.216 ††	1.31	0.0829	0.129
50030	7A5	0.206	0.305	0.093	0.079	0.01	0.038	0.082	0.181				
50032	7A5	0.213	0.316	0.079 ††	0.075	0.003	0.028	0.083	0.182	0.184	1.29	0.083	0.138
50033	7A5	0.222	0.328	0.095	0.079	0.005	0.037	0.088	0.207	0.182	1.32	0.081	0.13
50036	7A5	0.213	0.319	0.094	0.08	0.003	0.032	0.079	0.186				
50037	7A5	0.215	0.326	0.094	0.082	0.006	0.0422	0.0952	0.205	0.188	1.19	0.0806	0.125
50039	7A5	0.219	0.338	0.178 ††	0.078	0.003	0.036	0.178 ††	0.21	0.192	1.21	0.078	0.133
52283	7A5					0.009	0.027	0.088	0.195	0.186	1.17	0.133 ††	0.203 ††
52491	7A5	0.2	0.315	0.083 †	0.067	0.002	0.0352	0.0861	0.214	0.188	1.28	0.08	0.147
52526	7A5	0.178 ††	0.247 ††	0.091	0.069	0.004	0.038	0.088	0.186	0.17 ††	1.2	0.08	0.13

52527	7A5	0.2	0.29 ††	0.094	0.064 †	0.005	0.017 ††	0.053 ††	0.226	0.183	1.24	0.072	0.147
52543	7A5	0.213	0.33	0.108 †	0.091								
52565	7A5					0.002	0.115 ††	0.053 ††	0.136 ††	0.191	1.25	0.074	0.13

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Water Soluble Nitrate N - Pooled (7B1 +7B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
20204	7B1	3.51	0.69	12.8	7.79	11.9 ††	12.8 ††	24 ††	20 ††	7.71	2.5	7.21	20.8 ††
21088	7B1	2 †	0.47	9.3 †	3.8 ††	0.33	7.96	10.3	73.8				
21115	7B1	5.21	1.17 †	15.4	7.96	0.37	8.8	10.1	67.2	8.8	1.84	6.9	34.8
21148	7B1					0.45	5.65 †	13.8	76				
21178	7B1	5.1	0.44	14	7.4	0.3	8.1	8.8	66	8	2	6	33
21182	7B1	5	1	17	8					8.23	1.05	6.12	31.4
21232	7B1					0.89 †	10	13.2	72.2				
50005	7B1	4.16	0.917	14	7.75	0.395	9.87	11.9	79.5	9.46	1.31	6.47	37.7
50013	7B1	4.93	0.607	14.3	7.87	0.387	8.84	10.4	68.8	8.41	1.26	6.74	33.8
50014	7B1	5.89	1.41 †	17.1	9.23	0.455	9.27	12.3	73.6	9.42	1.92	7.19	36.7
50018	7B1	3.03	0.29	17.5 †	9.42	0.364	7.06	12.3	69	9.52	0.402	6.12	30.1
50020	7B1	6.24	5.03 ††	17.7 †	10.5 †	1.23 †	9.17	10.5	79.2	10.2	2.35	8.8	37
50024	7B2	4.33	1.16 †	15.1	7.3	0.446	8.81	11.4	70.5				
50025	7B1	6.17	1.93 ††	16.3	8.67	0.817 †	9.2	11	78	9.8	2.5	8	36.3
50029	7B1	3.24	0.5	14.2	6.93	0.563	7.19	8.22	53.5 †	6.62	1.26	4.28 †	28.6
50032	7B1	11.4 ††	6 ††	27.3 ††	26.3 ††	0.8 †	22.5 ††	17.5 ††	84.5	16 ††	8.3 ††	13 ††	41
50036	7B1	4.9	0.1	12.7	3.4 ††					9.7	0.7	7.7	38.1
50037	7B1	3	0.286	17.6 †	9.4	0.363	7.1	12.2	68	9.5	0.401	6.14	29.4
50042	7B1	2.6	2.1 ††	3.3 ††	4.4 ††	1.4 ††	5.9 †	5.9	9 ††	7	5.9 ††	12 ††	13 ††
50044	7B1	5	0.4	16	7.5	0.32	9	8.8	74	7.7		4.9	39
52526	7B1	4.7	0.6	14.6	8.6	0.5	11.2 †	11.7	75.6	10.2	0.1	6.7	37.6
52527	7B1	1.1 †	0.6	15.2	7	0.6	9	9.7	71.2	10.4	0.5	7.2	38.3
52543	7B1									8.71	1.49	5.9	33.9
52558	7B1	6.84	1.42 †	14.7	10.4 †	1.82 ††	9.18	13.4	65.4	11.7 †	6.18 ††	17.1 ††	32.3

Lab. Code #	Method Codes	Soil sample identification and values for 2018: KCl Extractable Nitrate N — autocolour (7C2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	7C2	4.82	1.02	16.5	8.4	0.347	9.17	11.9	70.9	9.45	1.41	6.61	35.1
8888	7C2	5.23	1.9 †	15.8	8.84	1.3 ††	8.52	10.4	74.3	8.61	1.37	6.18	32.4
10173	7C2	4.32	0.758	19.2 ††	9.48 ††	0.511	9.99	12.9	12.9 ††	9.4	1.6	6.88	32.6
10181	7C2	4.4	0.5	20.4 ††	8.03	0.43	8.01	9.47	66.1	9.08	1.96	6.55	33.4
21043	7C2	4.28	1.25	14.8	8.14	0.512	8.58	10.4	69.9	9.13	1.84	6.6	34
21088	7C2									8.47	1.62	6.05	35.7
21100	7C2	3.61	1.19	12.9	7.1 †	0.68	7.11 ††	9.12	73.3	7.4 ††	1.3	5.8	30.4
21138	7C2	3.1	1.25	15	8.3		9.2	9.3	69.2	8.46	1.63	6.16	32.4
21182	7C2					1 †	9	13	73	11 ††	3 ††	10 ††	39
21193	7C2	4.93	1.06	13.4	7.83	0.27	9.33	11.2	60 ††	7.9 ††	1.64	5.7	31.1
21229	7C2	5.34	2.11 ††	16.8	8.58	0.23	9.49	10.1	70.8	8.61	2.19	5.22 ††	36.6
21230	7C2	2.13	0.812	13.8	6.49 ††	1.92 ††	7.8	8.9	67.4	9.3	1.74	6.46	33.4
21232	7C2	4.67	2.51 ††	16.5	8.13	2.52 ††	11.7 ††	13.7	74.3	10.4 ††	3 ††	8.24 ††	35.6
50005	7C2	4.19	0.946	14.6	7.82	0.531	10.1	12.5	80.3 †	9.59	1.36	6.56	37.7
50011	7C2	4.94	1.19	15	8.06	0.233	8.94	10.4	66.3	8.44	1.52	6.15	32.2
50012	7C2	4.1	0.894	15	7.9	0.268	8.9	10	71	9.4	1.5	7	36
50014	7C2	6.13	1.62	16.8	9.19 ††	0.2	8.89	11.7	73.3	9.53	2.53 ††	7.43	34.4
50017	7C2	5.84	0.897	13.8	8.48	1.34 ††	10.2	11.4	74.9	9.2	1.34	6.72	36.3
50019	7C2									9.5	2	6.5	41 ††
50020	7C2	5.52	1.52	14.4	9.42 ††					8.5	1.4	7.5 †	35
50023	7C2	3.3	1.04	15.8	8.05	0.28	8.8	11	71	9.23	1.78	6.8	33.9
50024	7C2	4.29	0.95	14.7	7.87	0.46	9	12	72.8	9.46	2.07	7.06	34.7
50027	7C2	5.4	1.5	15.2	8.2	0.4	9.3	10.3	78.6	8.6	1.7	6.3	33.6
50030	7C2					0.4	8.5	11.2	69.4				
50031	7C2	3.7	1.45	14.9	8.4	0.5	7.7	8.5	75	8 †	1.9	6.7	36
50033	7C2	5.62	1.11	15.4	8.53	0.5	9.8	11	73.9	9	2.1	6.9	34
52491	7C2	3.7	1.3	16	7.9	0.5	9.2	12	86 ††	9.2	1.7	6.8	37
52494	7C2	5.11	0.84	15.4	7 ††	0.281	8.46	8.1	69.7	8.83	1.8	6.45	34
52543	7C2	1.6 ††	1.5	14	7.5								

Lab. Code #	Method Codes	Soil sample identification and values for 2018: KCl Ext. Ammonium N – autocolour (7C2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	7C2	17.6 †	138	9.15	14.8	1.85	5.15	10.1	12.1	44.6	280	7.6	22.5
8888	7C2	24.1	154	10.9	19.8	3 †	7.5 ††	12.3	14.9	44.7	163 ††	9.1	23
10173	7C2	22.3	145	9.43	16.5	1.8	3.9	10.5	21.5 ††	44.6	284	8.49	22.4
10181	7C2	24.8	185 ††	12.7 †	22 †	2.67	4.44	11.7	13.3	45.9	340	10	22.4
20204	7C2	16.8 ††	208 ††	12.5 †	11.6 ††	3.78 ††	6.39 †	24.1 ††	16.4	15.8 ††	63 ††	3.78 ††	12.7 ††
21043	7C2	24.5	157	10.6	20.1	2	5.1	12.4	15.2	47.4	349	10.2	25.2
21088	7C2	12 ††	83 ††	4.7 ††	13 †	0.05 ††	0.47 ††	5.38 ††	5.71 ††	38.1	302	5.5	19.4 †
21100	7C2	21.5	132	9.19	17.2	1.14	4.74	11.6	14.1	40.5	184 ††	7.7	20
21138	7C2	23	135	9.1	17	1.4	4.8	11.6	12.9	45	320	8.81	22.4
21148	7C2					1.4	2.7 †	11	16				
21178	7C2	21	130	17 ††	9.34 ††	1.2	3.8	9.9	9.2	42	300	11	22
21182	7C2					23.8 ††	26 ††	33.1 ††	34.2 ††	42	410 ††	6	18 ††
21193	7C2	20.1	152	8.08	17.6	1.46	4.07	9.23	10.1	47	291	9.3	24
21229	7C2	19.8	120 †	9.2	17.2	1.6	4.42	10.3	12	43.8	282	7.73	21.9
21230	7C2	25.5	147	12	19.9	2.48	5.89	13.1	14.8	49	345	13.3 ††	26.5 †
21232	7C2	22.5	198 ††	11.1	17.8	4.16 ††	7.57 ††	13.7	16.2	55.3 ††	289	8.69	28.8 ††
50005	7C2	21.4	146	10.1	17.2	3.43 ††	5.87	11.9	14.5	40.4	296	8.45	21.1
50011	7C2	22.1	144	9.88	17.8	1.6	4.72	11.1	14	43.5	286	8.16	22.7
50012	7C2	23	148	10	17	1.6	4.7	12	13	49	360	9.5	24
50014	7C2	22.9	148	9.61	20	1.74	4.68	11.3	13.4	45.8	318	9.01	22.7
50017	7C2	20.7	146	9.33	17.2	1.67	5.36	10.5	13.4	44.5	276	8.22	22.2
50019	7C2									63.9 ††	165 ††	11.8	33 ††
50020	7C2	26.3	201 ††	9.8	22 †	1.3	3.1 †	11.9	15.1	51	293	5.3	21
50023	7C2	23.9	144	10.2	18.7	2	5.3	13	16	48.4	347	10.6	25.1
50024	7C2	23.7	151	9.94	20	2.11	5.07	12	13.7	47.1	335	9.73	23.5
50027	7C2	20.6	133	10.3	17.3	2.2	4.7	10.9	12.4	44.8	307	10.4	23
50029	7C2	1.78 ††	26.7 ††	1.72 ††	1.51 ††	1.18	1.95 ††	1.65 ††	3.25 ††	9.25 ††	48.7 ††	1.3 ††	7.43 ††
50030	7C2					1.4	4.3	10.7	11.7				
50031	7C2	30.4 ††	157	14 ††	23.4 ††	2	5.03	11.7	12.8	48.2	346	10.5	23.7
50032	7C2	21.6	129	10.2	19	1.21	2.96 †	7.33 ††	8.26 ††	40.7	284	11.3	21.7
50033	7C2	145 ††	139	11.5	19.7	0.01 ††	3 †	11.5	11.4	51	395 ††	9.3	26.2 †
52491	7C2	23	147	8.7	17	1.8	4.3	10	12	45	305	4.5 ††	23
52494	7C2	23.1	150	8.4	18.1	2.73	6.12	13.3	14.6	49.4	290	7.53	25.3
52543	7C2	23	150	9	17.5								
52558	7C2	29.2 ††	158	13.4 ††	23.2 ††								

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total P - Pooled %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	Not Specified	0.475 ††	0.888 ††	0.18 ††	0.233 ††	0.0024 ††	0.0145 ††	0.0205	0.0374	0.012	0.193	0.021	0.021
10181	Not Specified	0.050	0.095	0.019	0.025	0.0008	0.0114	0.0193	0.0338	0.012	0.22	0.02	0.0185
20204	Not Specified	0.040	0.067	0.014	0.019	0.0187 ††	0.00916	0.0172					
21043	Not Specified	0.051	0.084	0.019	0.026	0.0005	0.011	0.02	0.035				
21088	Not Specified	0.049	0.086	0.021	0.026	0.0002	0.0116	0.0186	0.0337	0.0146 †	0.189	0.0196	0.0192
21100	Not Specified	0.048	0.083	0.021	0.020	0.0002	0.0117	0.015	0.0293	0.01	0.214	0.016	0.02
21138	Not Specified	0.046	0.091	0.017	0.021		0.0103	0.0173	0.0321	0.012	0.221	0.019	0.019
21148	Not Specified					0.0011 †	0.0095	0.0139	0.0292				
21178	Not Specified	0.037	0.067	0.013	0.017	0.0000	0.01	0.013 †	0.029	0.00076 ††	0.16 †	0.014	0.016 †
21182	Not Specified	0.061 †	0.109	0.022	0.029	0.0002	0.0135 †	0.0226 ††	0.0397 †	0.0185 ††	0.261 ††	0.0266 ††	0.0262 ††
21229	Not Specified	0.047	0.083	0.017	0.023	0.0003	0.0115	0.018	0.0333	0.00907	0.201	0.0173	0.0168
21230	Not Specified	0.049	0.081	0.017	0.023	6.7E-06	0.00959	0.0167	0.0296	0.0113	0.198	0.0203	0.0193
21232	Not Specified	0.054	0.093	0.019	0.025	0.0002	0.012	0.019	0.036	0.009	0.2	0.02	0.02
50005	Not Specified	0.039	0.086	0.015	0.017	0.0005	0.0111	0.0162	0.0364	0.00987	0.193	0.0158	0.0188
50011	Not Specified	0.040	0.073	0.016	0.018	0.0004	0.01	0.0149	0.0304	0.0101	0.159 †	0.0145	0.0166
50012	Not Specified	0.046	0.091	0.017	0.023	0.0003	0.0107	0.0182	0.0337				
50012	Not Specified									0.012	0.235 †	0.0198	0.0198
50013	Not Specified	0.045	0.090	0.018	0.024	0.0003	0.012	0.0207	0.038	0.0122	0.192	0.0206	0.0207
50017	Not Specified	0.039	0.072	0.014	0.018		0.0405 ††	0.0178	0.0329	0.073 ††	1.99 ††	0.165 ††	0.017
50018	Not Specified	0.045	0.092	0.019	0.023	0.0004	0.0113	0.0161	0.0324	0.0098	0.226 †	0.016	0.0197
50020	Not Specified	0.030 †	0.055 ††	0.009 ††	0.011 ††		0.008 ††	0.01 ††	0.025	0.002 ††	0.15 †	0.005 ††	0.01 ††
50024	Not Specified	0.048	0.078	0.016	0.019	0.0001	0.0108	0.015	0.0305	0.00834	0.194	0.0165	0.0185
50027	Not Specified	0.043	0.085	0.016	0.020	0.0004	0.0117	0.0161	0.0317	0.0085	0.183	0.0167	0.0183
50031	Not Specified									0.012	0.216	0.024 †	0.021
50036	Not Specified	0.041	0.076	0.017	0.021	0.0007	0.0104	0.0181	0.0288	0.0106	0.19	0.0156	0.0159 ††
50037	Not Specified	0.046	0.093	0.019	0.023	0.0004	0.0114	0.0163	0.0326	0.00981	0.227 †	0.0161	0.0196
52437	Not Specified									0.02 ††	0.207	0.048 ††	0.05 ††
52491	Not Specified					0.0015 ††	0.00936	0.0147	0.0275	0.00426 †	0.228 †	0.0156	0.02
52526	Not Specified	0.029 ††	0.072	0.014	0.016	0.001 †	0.0122	0.0174	0.0305	0.01	0.2	0.02	0.02
52527	Not Specified	0.024 ††	0.076	0.014	0.015	0.004 ††	0.016 ††	0.017	0.024 †	0.0123	0.189	0.0209	0.0206
52565	Not Specified					0.0014 ††	0.0103	0.0166	0.0305	0.009	0.159 †	0.0166	0.0182

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Colwell Extractable P — Pooled (9B1 + 9B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	9B1	45.7	51.2	32.4 ††	32.9 ††	21.2 ††	52.2 ††	42.8 ††	95 ††	15.1 ††	76.8	23.5	34.4
21043	9B2	48.4	53.3	19.9	22	2.19	24.5	21.1	50.4	9.56 †	67.4	21.9	28.8
21088	9B1	49	50	19	23	0.5	26.6	23.5	47.7	7.4	59.6	24.1	33.4
21100	9B1	38.4	41.3	15.4	17.2	9.45 ††	33.1	24.5	62.1	7.11	67	22	30
21115	9B2	55.1 †	55.5	20.7	22.6	0.17	29.1	23.6	36.2 †	8.35	54.3	24.4	32.1
21138	9B1	41	46	17	19		28	24	64 †	7.2	56	22.2	30.9
21148	9B2						21	19.2	47.6				
21178	9B1	98.8 ††	49.8	18.8	44.2 ††	0.075	26.2	23	51.4	7.44	49.7	22.6	31.6
21182	9B1	49	41	14	18	29 ††	23	20	41	5 †	43	18.5	24
21193	9B1	47.5	49.1	16.3	19.3	3.65 †	32.4	21.5	54.7	7.9	65	19	34
21229	9B2	41.7	44.7	15	15.7	2.41	22.5	19	43.8	6.9	54.8	19.9	25.6
21230	9B1	55.6 †	66.8 ††	21.4	26.6	1.41	33.4	22.7	62.5	14.7 ††	172 ††	30.6 ††	39.7
21232	9B1	47.1	44.7	19.9	24.5	3.09	26.8	22.5	57.5	12.9 ††	64.9	25.3	33.5
50005	9B1	45.5	43.7	28.9 ††	36.1 ††	0.572	11 ††	11.4 ††	43.8	1.38 ††	31.8 ††	9.85 ††	17.6 ††
50011	9B1	44.4	48.2	18.3	20.3	0.63	22.7	19.4	44.1	6.69	61.4	20.5	28.5
50012	9B2	50	48	21	24	0.503	26	24	53	6.6	53	23	28
50013	9B1	49.6	53.3	21.8	25.1	6.4 ††	31.9	23.9	53.3		46.6	21	28.3
50014	9B2	39.9	13.2 ††	16	17.3	1	26.1	22.7	51.9	8.3	63.5	24.1	34.1
50017	9B1	50	50.4	26.8 †	29.4 †	1.13	24.3	22.7	43.9	1.98 ††	36.8 †	32.1 ††	25.2
50018	9B2	44.8	44.2	21.2	22.3	1.76	24.3	22	46.8	7.9	49.2	21.4	29.1
50019	9B1									7.41	61	24.1	32.5
50020	9B1	45.3	46	14.2	16.5	9.67 ††	15.7 ††	30 ††	54	8	64	15 ††	22
50023	9B1	43	46.5	18.5	20.3	0.67	30	29 ††	54	8.95	64	29.9 ††	35.6
50024	9B1	46.9	45.1	18.5	21.1	0.478	39.1 ††	23.6	39.1	6.66	36.3 †	22.3	30.5
50025	9B1	33.5 ††	34 ††	15	16.7	5 †	23.6	21.6	28 ††	7.6	12 ††	21.5	29
50027	9B2	44.5	47.3	17.1	18.5	0.3	23.5	20.1	47.6	4.1 ††	61.2	21.9	29.3
50029	9B1	43.7	45.5	18.1	21.2	3.23	22	18	50.4	9.02	66.4	20	27.9
50030	9B1	45	46	19	23	0.2	26.6	22.6	52				
50031	9B1	49	53.1	22.5	25	0.5	25	21	50	7.5	59	24	32
50032	9B1	43.7	50.6	23.8	21.4	6.1 ††	29.1	24.4	50	11.9 ††	61.4	27	34.8
50037	9B2	44.9	44.1	21.1	22.2	1.75	24.4	21.9	46.7	8	49.1	21.6	29.2
52283	9B1	56.5 †	81.3 ††	23.6	19.4	1.71	18.1	18.5	41.7	7.61	99.7 ††	16.1 †	23.5
52494	9B2	42.2	40.8	18	19.7	2.37	20.5	17.7	33.4 ††	3.92 ††	27.3 ††	17.3	23.7
52543	9B2	53	55	22	24					5.95	51.3	20.7	23.3

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Olsen Extractable P — Pooled (9C1 + 9C2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
8888	9C2	15.6	13.2	6.91	8.91	1.4	11	8.61	20.9	2.53	11.9	9.45	14.8
10173	9C2	17	14	6.8	10	1.12	9.8	8.2	8.2 ††	2.4	16.3 †	8.39	13.7
10181	9C2	19.2	15.2	7.8	9.9	1.9	14 ††	11.1	22.7	4.26 ††	13	11.9 †	17.6 †
21043	9C2	18.7	15.4	8.03	10.6	0.753	9.57	8.12	21.4	3.52	11.7	11.6	15.3
21100	9C1	17.3	13.9	7.19	9.67	0.394	14.2 ††	11.7 †	28.8 ††	3	9.2	9.2	14.1
21115	9C2	18.9	16.2	8.1	7.1 ††	0.17	11.8	8.36	20.2	2.8	12.5	10.2	16.7
21148	9C1						9.9	8.34	19.6				
21178	9C1					0.076	10.3	8.13	17.4	2.4	9.78	10.7	14.7
21190	9C1	15.6	13.7	8.3	10.3	1.9	13.8 ††	8.86	24	2.2	29 ††	10.2	17.3 †
21229	9C2	15.6	12.9	6.9	8.46	0.89	9.25	6.6	17.8	3.03	8.43	7.9	13
21232	9C1	16.7	12.7	12.1 ††	8.92	1.55	10.7	8.71	24.5	5.2 ††	14	10.5	15.5
21234	9C1									4.89 ††	14.2	14.3 ††	18.5 †
50005	9C1	19.2	11.7	7.27	11.2	0.429	9.48	8.68	16.6	1.01 ††	15.7	6.04 ††	9.22 ††
50007	9C1	17.2	15.9	8.7	10.9	0.03	12.7	10.3	22.3	2.42	13.7	9.96	15.2
50011	9C1	17.3	15.6	7.84	9.47	0.02	9.96	7.9	18.9	2.7	13	9.3	14.5
50012	9C2	17	13	7.3	9.9	0.575	8.9	7.2	19	2.6	13	10	14
50013	9C1	17.3	13.7	7.98	10.6		8.29	7.27	16.8	1.54 †	10.4	9.19	12.8
50017	9C2	18.6	15	10.1 ††	12	0.431	14 ††	12.5 †	23	2.75	10.7	14.3 ††	15.9
50018	9C2	16.1	14	9.01	10.5	0.484	10.3	8.96	21.4	2.74	10.4	9.75	14.5
50019	9C1									2.38	12.4	11.2	16.4
50020	9C1	13.8 †	9.83 ††	6 †	7.33 ††		14.3 ††	10.3	35.7 ††		11.3	3.7 ††	11 †
50023	9C1	16.2	13.2	7.6	10.5	0.44	13 †	10	22	3.23	10.8	11.5	15.8
50027	9C2	17.9	14.8	8.1	9.7	0.4	10.2	8.1	19.5	3	13.2	9.5	14
50029	9C1	18.4	17.2 †	8.69	10.5	1.19	9.46	7.56	22.5	3.25	14	8.9	13.4
50033	9C2	17.3	13.2	7.37	9.45	0.38	11.4	8.95	20.4	1.8 †	5.9 ††	5.6 ††	8 ††
50037	9C2	16.1	14.1	9.04	10.5	0.482	10.4	8.98	21.3	2.76	10.4	9.74	14.5
50044	9C2	21 †	16							4.3 ††	11	11	14
52384	9C2									11 ††	21 ††	9	30 ††
52434	9C1	17.8	13.9	9.2 †	10.7	0.96	10.7	9.83	19.6	3.75 †	14.8	12.2 †	17.5 †
52435	9C1	12.8 ††	12.9	5.34 ††	7.22 ††	1.26	8.83	16.2 ††	20.6				
52436	9C1					1.14	9.54	6.85	12.3 ††	4.74 ††	18 ††	54.5 ††	7.7 ††
52437	9C1									1.44 †	6.92 †	3.86 ††	1.65 ††
52491	9C2	18	16	7.6	9.9	2.9 ††	11	11	19	2.8	11	8.8	13
52569	9C1	31 ††	31 ††	16 ††	31 ††	0.6	16.1 ††	14.2 ††	24.7				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Bray-1 Extractable P — Pooled (9E1 + 9E2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	9E1	28.2 ††	45.3 ††	17.8 ††	43.7 ††	11.2 ††	77.6 ††	42.9 ††	84 ††	2.43 †	43.3 ††	22.2 ††	39.8 ††
10166	9E1	23 ††	21.5 ††	9.5	11					3.6	3.5	12.4	29.4
10181	9E2	15.8	13	13.1	12.3								
20204	9E1	14.6	13.3	12.8	10.4	8.53 ††	14.9	9.92	29.4	8.11 ††	25.9 ††	9.97	8.51 ††
21100	9E1	16.8	12.9	11.7	9.52	0.511	22.8	12.4	11.8	3.4	2.8	13.3	27.2
21178	9E1	15.2	13.8	12	44.1 ††	0.357	37	11.4	16.9	3.86	2.91	14.6	28.9
21229	9E2	11.9	12.2	9.28	6.15	0.85	25.5	10.8	18.9	4.41	3.3	15.1	31.3
50005	9E1	14.1	11.9	10.5	15.1	0.764	16.5	6.6 ††	7.93	1.31 ††	1.97	16.4	28.6
50007	9E1	12.4	10.1	13.3	9	1.1	11.8	13.3	11.9	3.14	1.42	14.4	36.5 ††
50012	9E2	15	12	12	10	0.775	15	12	10	3	1.3	14	28
50013	9E1	12.5	11.4	10.7	6.72		19.4	11.6	17.9	3.65	2.48	11.2	27.1
50020	9E1	15.9	14.9	13.5	11.6		22.8	10.6	18.6				27
52436	9E1	18.6	15.6	19.9 ††	13.4	0.5	14.6	14.4	13.9	4.34	3.24	13	48.7 ††
52526	9E1	11.1	16.7	17.6 ††	7.7		21.8	15.2 †	20.6	3.6	2	12.9	32.1
52569	9E1	8 †	7.7 ††	13	6.9	1	1	14	8.6				

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Acid Extractable P — Pooled (9G1 + 9G2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
20204	9G1	48.2	101	30.6	57.5	41.2 ††	67.6 ††	55.3 ††	118 ††	6.17	73.5	24.9	35.7
21100	9G2	48.5	100	31.3	50.7	4.72	63.6 †	50.2 ††	57	2.4	102	35.7	42.8
21148	9G2					11.6 ††	95 ††	139 ††	292 ††				
21178	9G2	42.3	107	26.3	55.1	0.76	44	26.1	46.2	5.74	101	32	41.9
21229	9G2	40.6	99.8	25	51.7	1.7	36	20.4	40.1	6.1	54.5	28.2	39.8
50005	9G2	323 †	92	253 ††	341 †	2.37	36.3	23.1	44.3	1.49	108	27.3	35.3
50014	9G2	43.8	229 ††	27.5	56.2	1.81	45.1	26.4	46.5	7.44	93.1	33.8	43
50020	9G1	28 †	74.3 †	15.2	39.3 †	12.3 ††	34	25	32	53 ††	143	48 ††	45
50025	9G1	46	104	25.7	56	1	46	26	45	6.6	111	32.8	42
50027	9G2	44.8	91	25.2	53.2	3.8	42.8	28.2	56	5.3	87.1	30.6	40.5
50029	9G1	39.6	86	21.5	46.7	4.56	39.3	23.3	44.7	9.02	92.4	31.1	41.2
50031	9G2	39.6	91.8	26.1	51.3	1.6	45	27	52	8.1	116	34	45
50032	9G1	46.6	97.2	39.8 †	60.4	3.5	46.6	31.4	58.9	8.91	151 †	35.2	45
52543	9G2	29 †	69 ††	20	45					8.25	12.3 ††	25.1	33.5 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	9I2a	138	187	81.4 ††	129	63.7 ††	139 †	117 ††	48.6 ††	89.7	868	95.1	37.6 ††
21088	9I2a	132	164	68	110	12.9	80.9	62.8	120	98.6	2530 ††	98.7	28.9
21100	9I2a	146	193 †	70.9	125	22.7 †	124 †	83.5 ††	149 ††	93	1580	98	28
21138	9I2a	133	167	65	109	12.7	65.8	58.1	109	88.5		90.8	22.8
21148	9I2a					15.9	65.6	59.6	106				
21178	9I2a	161 ††	215 ††	72	124	13.7	77.3	47.1 ††	101	89	2530 ††	87 ††	16.4 †
21193	9I2a	148	182	72.7	116	21 †	89 †	71 †	119	94	990	91	15 †
21229	9I2a	146	177	65.3	114	16.4	89.9 †	68.4	124 †	94.8	1070	99.6	21.4
50005	9I2a	143	176	72.3	122	13	60.6	63.5	109	93.7	1370	96.8	26.7
50011	9I2a	135	168	62.9	104	10.3	71.9	60.8	109	88.9	585 ††	93.8	21.9
50012	9I2a	139	172	66.2	116					90.1	1500	94.1	25
50014	9I2b	139	166	65	111	14	65	61	108	101	1520	97	26
50017	9I2a	129	173	54.6	103	16.5	92.9 †	54.1	103	121 ††	1260	104 ††	32.7
50018	9I2a	138	176	70.6	108	15.4	67.7	59.8	113	95.1	1840	96.4	32.6
50019	9I2a									101	2040	101	33.2 †
50020	9I2a	179 ††	225 ††	94.5 ††	147 ††	74 ††	139 †	128 ††	180 ††	94	1190	95	24
50025	9I2a	146	169	62.2	112	18.3	69.7	64.8	109	90	1430	92.9	25
50027	9I2b	144	172	66.9	114	14	70.8	64.2	114	90.4	1390	94.9	23.8
50029	9I2b	143	168	73.4	122	21.5 †	68	65.1	111	90.1	1550	90.4	24
50030	9I2a	150	178	74	134 ††	12	62	57	103				
50032	9I2a	150	173	63.1	110	33.2 ††	105 †	64	131 ††	111 ††	743	109 ††	42.2 ††
50037	9I2a	137	177	70.3	107	15.4	67.9	59.9	112	95.3	1840	96.4	32.6
52494	9I2a	140	184	63.8	114	14.1	57.3	54.6	95 †	89.2	1290	95.3	24.3
52543	9I2a	133	177	62	109					95.5	1610	93	26.5

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Phosphorus buffer index - Unadj (9I4a + 9I4b + 9I4c) L/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
21088	9I4b					12.8	75.9	58.6	110 †	97	2400 ††	94	23
21100	9I4b	135	180 ††	67.4	120	20.9	117 †	78.6 ††	135 ††	92	1290	93	23
21178	9I4c	150	202 ††	68.6	120	16.6	75.7	46.4 ††	99.5	88.1	2490 ††	85.2	14.5
21193	9I4a	144	178 †	73	117	21	83	70 †	109 †	93	931	87	10
21232	9I4a	126	149	32.1 ††	103	10.5	56.3	56.7	92.3 †	83.8	787 †	86.4	16.3
50005	9I4a	133	165	67.2	115	12.9	58.8	61.6	99.1	93.5	1330	94.9	23.9
50011	9I4c	125	157	59.6	99.5	10.2	67.8	57.3	99.7	87.6	550 ††	89.8	17.3
50014	9I4b	130	163	63	108	14	60	57	98	99	1430	93	21
50017	9I4a	116	161	50.1	97.2	16.4	84	49.5	93.7	121 ††	1220	98.2	28.6
50025	9I4a	128	165	59.7	107	17.6	65	61	103	90.5	1350	92	20.2
50027	9I4b	134	162	63.4	111	16.4	69.4	56.6	101	88.8	1180	90.3	23.9
50029	9I4b	133	157	70	118	21	64	61.9	101	88.3	1450	86.5	19.5
50032	9I4a	140	160	58.8	106	80.3 ††	50.8	66.8	43.6 ††	47.1 ††	2.54 ††	48.9 ††	78.3 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Phosphate Extractable S – Pooled (10B1 + 10B2 + 10B3) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10173	10B3	25	45	17	15	6.93	28.5	13.7	32.9	22	84.2	14.4	9.44
21088	10B3	25	49	18	16	9	28	15	43	28	90	13	10
21229	10B1	23.7	48.9	17.7	15.5	8.75	26.7	14.9	44.4	31.3	99.6	14.6	10.4
21232	10B3	17.1	35.3	12.2	11.3 †								
21232	10B1	25.7	49.6	19.2	16.5	7.84	28.4	14.1	39.9	23.5	101	22.2 ††	10.5
50014	10B3	24.8	48.5	18.3	15.4	8.97	26.2	14.5	42.8	29.5	94.8	14.1	10
50020	10B3	15.5	32.2	10.8	11 †					13 ††	36 †	7.7 ††	4.7 ††
50025	10B3	28	55.1	20.9	18.2 †	6.86	31.9 †	18.6	59 †	25	102	14	10
50027	10B3	25.7	51.3	18.4	15.3	8.2	25.5	13.8	41.2	28.1	101	12.5 ††	10
50029	10B3	22.2	42.4	15.9	15.3	8.39	25.8	14.9	39.1	27.8	112	13.2	10.4
50032	10B1	5.92	18.2	15.9	23.4 †	9.06	26.9	24.8 †	39.3	41.9 ††	68.5	25.5 ††	20.4 ††
52283	10B3	14.5	32.6	12.5	11.9 †	8.64	17.5 †	11.1	25.8 †	28.3	87.8	14.4	10.3

Lab. Code #	Method Codes	Soil sample identification and values for 2018: KCl_{40} Extractable S (10D1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	10D1	17.5	33.3	14 †	14.2 †	8.37 ††	31.2	13.4 †	22	18.4	31.7	16.3 ††	13.9 ††
21043	10D1	17.5	36.3	12.7	11.6	5.82	27.1	10.5	24.8	17.5	37.8	10.2	8.76
21088	10D1	19	38	14 †	13	6.5	28.7	11.3	26.4	17.2	39.3	11.4	9.7
21100	10D1	16.2	31.8 †	11.2 †	10.7	5.65	27.2	10.8	28.8	12.7 ††	25.6 †	9.5	7.7 ††
21138	10D1	19	39	13	12	5.4	29.7	11.9	26.4	20.7	44.4	12.3	10.6
21148	10D1					5.47	25.9	11	26.5				
21178	10D1	23.6	48 ††	19.4 ††	15 †	6	32	13 †	30	18	41	12	10
21229	10D1	17	35.6	12.2	11.8	5.92	26.9	10	23.5	20	35	9.73	8.33
21232	10D1					6.24	30.4	11.6	28.1	20	43.1	11.4	10.2
50005	10D1	12.4 ††	19.7 ††	11.5 †	10.8	6.72	29.1	11.3	24	15.2	29.2	9.42	8.37
50011	10D1	16.8	35.3	12.4	11.6	5.92	26.4	10	23.5	14.8 †	28 †	9.42	8.54
50012	10D1	21	42	13	13	5.8	31	11	27	19	44	12	10
50013	10D1	20.8	43.2	15 †	14.4 †	4.6 †	24.1	9.1 †	20.6 †	19	45.3	10	8
50017	10D1	17.5	38.6	12.1	11.4	6.75	12 ††	11.4	26.8	17.8	40.1	11.3	10.1
50018	10D1	18.9	36.3	12.4	12	6.16	25.8	11.3	27.7	20.3	42.1	10.4	10.2
50020	10D1					5	26	7.67 ††	30.7				
50020	10D1	16.8	34.3	14.4 †	11.8	6	26.3		24	12.7 ††	39	8.3	6.7 ††
50024	10D1	18.8	40.8	12.9	12.7	5.77	27.8	10.5	29.7	20	44.5	10.3	9.28
50027	10D1	21	37.6	14.8 †	15.2 ††	5.3	28.4	13.2 †	25.2	18.8	38.5	14.7 †	9.6
50037	10D1	18.8	36.2	12.6	11.9	6.14	25.8	11.3	27.7	20.5	42.1	10.5	10.2
52494	10D1	18.7	38.8	12.7	12.4	6.96 †	28	11.2	27.6	20.3	46.7	11.6	10.2

Lab. Code #	Method Codes	Soil sample identification and values for 2018: DTPA Extractable Fe (12A1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10166	12A1	54 ††	103 ††	35 ††	29 ††					104	119	22.5 ††	27.5
20204	12A1	33.2	74.7	26.5	19.8 †	5.29	51.9	26.6	440	104	114	14.9	48.3 †
21088	12A1	25	65	18	13	6.33	41.8	30.3	399	80.8	104	12.4	29.2
21100	12A1	30.5	97.4 †	22.3	15.7	7.2	39.1	36	799 ††	151 ††	112	12	71 ††
21148	12A1					4.37	54.1	32.2	405				
21178	12A1	21 †	53	13 †	9.5	4.1	39	30	390	78	91	9.6	18
21190	12A1	37.3	73.2	25.3	16.9	7.58	26.8	37.7	604	17.2 ††	15.9 ††	13	58 †
21193	12A1	34.5	66.6	21.1	12.1	5.25	48.5	39.6	505	105	115	14.9	29.3
21229	12A1	31.5	65.9	18.2	11.2	6.37	45.5	31.9	508	109	112	12.9	41.7
21232	12A1	29	74.2	20.6	16.4	4.74	31.3	27.1	425	94.9	108	12.5	38.1
21234	12A1	33.4	34.8 ††	17.8	8.45					135 †	165 ††	6.38 ††	53.7 †
50005	12A1	44.1 ††	109 ††	25.6	18.9	5.89	33.6	36.9	599	90.2	93	12.7	38.7
50007	12A1	34.3	107 ††	23.6	13.4	9.1	45.4	35.8	552	112	128	12.2	47.9
50011	12A1	28.9	78.5	19.8	14	4.56	36.2	33.4	490	110	116	14.5	30.1
50012	12A1	25	56	17	12	4.1	24	28	393	85	101	13	30
50013	12A1	30.2	98 †	20.1	11.8	8.08	32	34.4	616 †	148 ††	145 ††	13	78.2 ††
50014	12A1	29.6	80.8	20.3	12.2	5.64	27.4	36.6	421	108	109	14	24.1
50017	12A1	30.1	72.5	23.3	15.7	5.4	82.4 ††	29.9	365	85.5	98.7	11.4	20.1
50018	12A1	32.3	69.1	21.3	13.7	6.55	60.7	36.3	438	97.4	102	11.9	32.8
50019	12A1					5.59	104 ††	35.1	498				
50020	12A1	35.9	85	20.2	15.1	7.23	32.2	32.4	511	94	108	14	20
50024	12A1	22.6	63.5	16.4	9.77	4.81	30.2	27.8	474	94.1	110	13.2	28.3
50025	12A1	34.5	113 ††	22.1	15	8.03	30	33.5	739 ††	145 ††	182 ††	16.2	111 ††
50027	12A1	32.3	65.7	20.1	13.4	5.9	54.1	29.6	428	95	102	11.2	22.2
50027	12A1									5270 ††	13300 ††	1120 ††	640 ††
50029	12A1	24.5	57.7	15.9	11.2	10.2 †	57.4	25.5	342	78	116	10.3	22.7
50031	12A1					4.43	34.1	23.8	432	108	119	12.6	28.6
50032	12A1	32.7	78.3	22.7	13.1	7.5	51.3	34.8	491	109	112	14.8	42.2
50037	12A1	32.6	68.9	21.5	13.5	6.53	60.5	36.1	440	97.4	101	11.9	32.8
52283	12A1	23	57.4	16.3	9.38	6.84	71.1 †	36.4	374	98.3	155 ††	1.97 ††	97.4 ††
52384	12A1									109	103	10.4	26.4
52387	12A1	36.5	77.8	29.1 ††	19.4 †								
52494	12A1	30.3	61.9	19.1	15.2	4.11	49.1	24.1	362	81.2	95	10.8	20.2
52565	12A1					54.1 ††	4.46 ††	33.1	2.23 ††	97.7	127	14.9	24.2

Lab. Code #	Method Codes	Soil sample identification and values for 2018: DTPA Extractable Cu (12A1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10166	12A1	1.8	1.8	1.6	2					1.6	0.7	1.4 †	0.6 ††
20204	12A1	1.67	1.55	1.49	1.87	0.032	0.42	1.86	0.967	1.36	0.5	1.83	0.474
21088	12A1	1.7	1.5	1.4	1.8	0.01	0.406	1.88	0.76	1.19	0.435	1.82	0.41
21100	12A1	1.93	1.74	1.6	2.14	0.107 ††	0.511 †	2.35	1.08 ††	1.53	0.56	2.01	0.54
21148	12A1						0.441	2.1	0.833				
21178	12A1	1.6	1.4	1.35	1.74	0.009	0.44	2.2	0.84	1.2	0.43	1.8	0.39
21190	12A1	1.77	1.73	1.6	1.97	0.02	0.428	2.22	1.01	1.65	0.632	2.02	0.471
21193	12A1	1.58	1.45	1.31	1.6	0.11 ††	0.5 †	2.03	0.88	1.24	0.39	1.8	0.4
21229	12A1	1.81	1.68	1.54	1.92	0.0162	0.43	2.02	0.894	1.31	0.461	1.81	0.396
21232	12A1	1.87	1.74	1.59	1.99	0.015	0.36 ††	1.77	0.73	1.29	0.42	1.87	0.41
21234	12A1	1.7	1.04 ††	1.35	1.62					1.55	0.546	1.67	0.522
50005	12A1	2.22 ††	2 †	1.83	2.3 ††	0.0343	0.412	2.16	0.947	1.54	0.75 †	1.97	0.446
50007	12A1	1.91	1.92	1.71	2.13	0.01	0.51 †	2.34	0.99	1.5	0.67	2.08	0.51
50011	12A1	1.83	1.74	1.65	1.97	0.177 ††	0.514 †	2.15	0.961	1.53	0.517	1.97	0.528
50012	12A1	1.7	1.5	1.4	1.8	0.011	0.403	2	0.792	1.2	0.445	1.7	0.388
50013	12A1	1.88	1.85	1.62	2.06			2.1	0.906	1.6		2.09	
50014	12A1	2.04	1.79	1.76	2.22	0.0169	0.45	2.35	0.899	1.48	0.503	2.22	0.436
50017	12A1	1.91	1.74	1.69	2.12	0.012	0.474	1.82	0.721	0.508 ††	0.169 ††	1.41	0.146 ††
50018	12A1	1.62	1.58	1.42	1.76	0.0151	0.451	1.89	0.82	1.26	0.38	1.74	0.394
50019	12A1					0.04	0.426	2.02	0.782				
50020	12A1	2.09	1.92	1.64	2.16		0.53 ††	2.03	0.93	1.4	0.7	1.7	0.5
50024	12A1	1.63	1.58	1.4	1.73	0.008	0.378 †	1.86	0.825	1.5	0.5	2.1	0.459
50025	12A1	1.72	1.51	1.46	1.83	0.041	0.433	1.95	0.813	1.32	0.49	1.86	0.443
50027	12A1	1.85	1.59	1.51	1.9	0.02	0.45	1.93	0.91	1.32	0.52	1.79	0.44
50029	12A1	1.32 ††	1.27 †	1.11 ††	1.37 ††	0.0474 †	0.374 †	1.54 ††	0.672	1.31	0.769 †	1.8	0.497
50031	12A1					0.045 †	0.45	2.07	0.838	1.4	0.389	2.11	0.405
50032	12A1	1.77	1.64	1.53	1.89	0.04	0.45	2.02	0.92	1.6	0.65	2.26 †	0.61 ††
50037	12A1	1.63	1.59	1.41	1.77	0.015	0.45	1.9	0.821	1.27	0.379	1.73	0.393
52283	12A1	1.66	1.64	1.5	1.88	0.019	0.467	2.2	0.849	1.24	0.832 ††	1.92	0.441
52384	12A1									1.2	0.43	1.54	0.4
52387	12A1	2.18 ††	2.2 ††	2.1 ††	2.75 ††								
52494	12A1	1.82	1.68	1.5	1.89	0.0099	0.452	1.87	0.776	1.24	0.42	1.76	0.42
52565	12A1					1.74 ††	1.19 ††	2.89 ††	4.41 ††	1.64	0.685	2.4 ††	0.657 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: DTPA Extractable Mn (12A1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10166	12A1	185 †	425 ††	195 ††	82 ††					18.2	69.3	53.8	29.1
20204	12A1	147	238 ††	145 †	61.1	0.115	5.95	167	15.8 ††	26.8 ††	50.3	73.6	35.8 ††
21088	12A1	165	339	157	54	0.05	4.56	144	12.3	16.7	49.6	67	29.4
21100	12A1	166	336	158	59.2	0.132	4.55	161	13.2	18	51	67	29
21148	12A1					0.038	5.18	165	12.9				
21178	12A1	148	327	154	47.3	0.09	4.7	150	13	18	61	64	29
21190	12A1	218 ††	457 ††	226 ††	80.9 ††	0.062	4.02	195 ††	10.9	20.5 †	58.2	73.6	31.7 †
21193	12A1	149	339	155	56.3	0.044	4.74	156	13.1	17	41.3	69.3	27
21229	12A1	159	375	172 †	56.8	0.0623	4.91	165	12.7	18	53	70.3	30.2
21232	12A1	167	341	159	58.6	0.065	3.79	139	11.8	17.9	49.2	68	28.3
21234	12A1	154	235 ††	149	44 ††					17.9	72.8	62.7	30
50005	12A1	159	470 ††	158	65.7	0.0738	4.2	137	13.6	19.4	93 ††	61.7	28.8
50007	12A1	182	374	191 ††	67.9	0.04	5.25	203 ††	14.4	17.4	66.7	77.5	29
50011	12A1	173	366	169 †	54.3	0.048	4.41	161	12.9	18.6	56.3	68.9	28.2
50012	12A1	166	301 †	161	59	0.173 ††	3.8	155	13	18	73	65	28
50013	12A1	148	348	159	58.4		3.11	149	9.81 ††	14.5 ††	68.7	64.1	28.1
50014	12A1	170	360	173 †	58.7	0.0653	4.09	170	14.5	19	64.9	74.5	29.7
50017	12A1	165	317	167	60.7	0.0844	4.84	126	12	22 ††	61.6	79.2 †	36.6 ††
50018	12A1	152	347	157	50.5	0.0974	5.62	148	16.2 ††	17.2	56.9	68.2	29.2
50019	12A1					0.246 ††	6.3 ††	121	13.1				
50020	12A1	141	271 †	131 †	50.4		4.03	183	14.1	16	79	56	24 ††
50024	12A1	157	340	159	54.2	0.039	4.22	146	13.3	18	48.1	65.4	28.8
50025	12A1	128 ††	279 †	126 ††	44 ††	0.069	3.21	131	11.6	15.1 ††	45	54.5	25.4 ††
50027	12A1	159	298 †	165	64.7	0.1	5.1	152	13.5	17.8	66	61.1	28.2
50029	12A1	131 †	348	129 ††	51.1	0.131	5.19	136	12.5	17.1	75.6	59.6	27.5
50031	12A1					0.12	4.15	159	12.1	18.8	47.3	71.9	31
50032	12A1	155	344	167	58	0.001	5.05	180	14.4	18.5	39.8	73.3	30.1
50037	12A1	151	346	156	50.3	0.0972	5.61	147	16.1 ††	17.4	56.9	68.1	29.1
52283	12A1	146	299 †	150	57.5	0.082	4.34	142	10.8 †	17.5	97.6 ††	61.7	24.9 ††
52384	12A1									20	21.9 †	64.5	30
52387	12A1	281 ††	398 †	272 ††	171 ††								
52494	12A1	163	350	156	63.3	0.042	4.94	166	12.3	17	43.3	61.3	27.9
52565	12A1									12.7 ††	45.4	82.4 ††	33.7 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: DTPA Extractable Zn (12A1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10166	12A1	0.88	5.8 ††	10.6 ††	0.46 ††					0.7	3.1 †	1 ††	1.6
20204	12A1	0.84	10.2	0.36	0.395 †	0.06	0.52	0.82	2.78	0.72	2.52	0.5	1.78
21088	12A1	0.805	9.38	0.282	0.345	0.052	0.037 ††	0.054 ††	0.207 ††	0.591	2.46	0.352	1.64
21100	12A1	0.809	9.39	0.311	0.335	0.088 †	0.527	0.849	2.92	0.79 †	2.54	0.46	1.57
21148	12A1						0.89 ††	1.04 ††	2.93				
21178	12A1	0.7	8.3	0.24	0.28 †	0.002	0.41	0.68	2.2	0.53	2.3	0.33	1.6
21190	12A1	0.88	9.65	0.385 †	0.35	0.016	0.514	0.946	3.07 †	0.78 †	3.29 ††	0.399	1.45
21193	12A1	1.05 ††	8.94	0.69 ††	0.76 ††	0.026	0.46	0.72	2.72	0.65	2.12	0.38	1.47
21229	12A1	0.826	10.2	0.273	0.35	0.0422	0.479	0.685	2.57	0.645	2.6	0.367	1.62
21232	12A1	0.81	10.4	0.28	0.34	0.035	0.37	0.66	2.16	0.59	2.24	0.42	1.75
21234	12A1	0.88	6.58 ††	0.19 †	0.19 ††					0.658	2.9	0.4	1.71
50005	12A1	1 †	11.3 †	0.363	0.405 †	0.0382	0.469	0.851	2.68	0.776	3.47 ††	0.37	1.66
50007	12A1	0.93	11.3 †	0.3	0.37	0.02	0.54	0.92	2.7	0.62	2.78	0.42	1.69
50011	12A1	0.891	9.77	0.33	0.353	0.096 †	0.48	0.801	2.54	0.694	2.59	0.513 †	1.52
50012	12A1	0.739	9.6	0.213 †	0.264 ††	0.001	0.424	0.736	2.4	0.573	2.5	0.398	1.5
50013	12A1	0.904	9.98	0.248	0.327				2.41		3.18 †		1.76
50014	12A1	0.905	9.98	0.317	0.377 †	0.0066	0.395	0.815	2.65	0.674	2.62	0.403	1.61
50017	12A1	0.857	11.3 †	0.315	0.352	0.0295	0.669 ††	0.823	2.57	0.544	2.14	0.322	1.31 †
50018	12A1	0.801	10.5	0.302	0.339	0.0324	0.542	0.828	2.6	0.636	2.39	0.363	1.73
50019	12A1					0.056	0.545	0.822	2.59				
50020	12A1	0.641 ††	9.1		0.157 ††		0.97 ††	0.7	2.87	0.7	3.3 ††	0.63 ††	1.7
50024	12A1	0.707	8.92	0.253	0.266 ††	0.041	0.446	0.779	2.46	0.61	2.5	0.416	1.82
50025	12A1	0.772	9.04	0.295	0.339	0.064	0.48	0.738	2.69	0.674	2.61	0.428	1.67
50027	12A1	0.87	9.68	0.39 †	0.35	0.025	0.44	0.71	2.27	0.63	2.36	0.43	1.51
50029	12A1	0.662 †	7.47 ††	0.241	0.288 †	0.0449	0.423	0.662	2.03 †	0.651	3.03 †	0.4	1.58
50031	12A1					0.1 ††	0.388	0.621	2.18	0.647	2.33	0.358	1.64
50032	12A1	0.86	9.88	0.3	0.35	0.03	0.49	0.81	2.54	0.67	2.52	0.5	1.69
50037	12A1	0.803	10.5	0.301	0.341	0.0325	0.541	0.827	2.59	0.635	2.38	0.361	1.72
52283	12A1	0.78	9.61	0.27	0.32	0.028	0.396	0.861	3.63 ††	0.611	3.1 †	0.276 †	1.15 ††
52384	12A1									0.85 ††	2.25	0.52 †	1.71
52387	12A1	1.08 ††	9.25	0.45 †	0.51 ††								
52494	12A1	0.818	9.57	0.274	0.338	0.014	0.486	0.708	2.27	0.56	2.3	0.34	1.6
52565	12A1					0.677 ††	0.502	0.602	7.78 ††	0.522	1.99 †	0.415	1.35

Lab. Code #	Method Codes	Soil sample identification and values for 2018: CaCl2 Extractable B (12C1 + 12C2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10166	12C1	1.77 †	0.02 ††	0.34 ††	0.22 †					0.7	1.6 ††	1.6	1 ††
10173	12C2	0.66	0.88	1.32	0.66	0.001	0.69	1.27	0.61	0.52	0.91	1.89	0.47
20204	12C2	0.63	0.6	1.09	0.63	0.66 ††	0.99	0.49 ††	1.66 ††	1.03 ††	0.66	0.78 †	1.08 ††
21043	12C2	0.858	1.09	1.6	0.98	0.029	0.82	1.62	0.791	0.728	0.985	2.22	0.642
21088	12C2	0.67	0.792	1.2	0.67	0.01	0.694	1.02	0.492	0.56	1.06	1.49	0.61
21100	12C2	0.357 †	0.678	1.06	0.338 †	0.379 ††	0.847	1.66	1.53 ††	0.46	0.585	0.797 †	0.587
21138	12C1	0.25 †	0.59	0.94	0.94		0.39	1.02	0.53	0.45	0.41	0.89 †	0.4
21148	12C2					0.019	0.453	0.701	0.299				
21178	12C2					0.03	0.79	1.7	0.69	0.62	0.82	2.2	0.45
21229	12C2	0.698	0.897	1.49	0.864	0.0536	0.735	1.37	0.645	0.599	0.865	1.89	0.483
21232	12C2	1.05	1.06	1.47	1.08	0.04	0.073 ††	1.51	0.75	0.67	1.19	2.17	0.517
50005	12C2	0.915	1.01	2.42 ††	0.348 †	0.243 ††	0.741	1.32	0.569	0.873	0.629	2.29	0.674
50011	12C2	0.744	0.813	1.32	0.854	0.069	0.699	1.27	0.588	0.488	0.958	1.83	0.428
50012	12C2	0.928	1.1	1.7	0.908	0.206 ††	0.734	1.6	0.798	0.595	0.712	1.7	0.495
50014	12C2	0.694	1.05	1.54	0.818	0.0214	1.32 ††	0.703	0.748	0.608	0.829	1.66	0.543
50017	12C2	0.794	0.928	1.56	0.93	0.0353	0.669	1.29	0.722	0.663	0.484	1.39	0.624
50018	12C2	0.61	0.91	1.54	0.818	0.0526	0.782	1.28	0.661	0.655	1.04	1.73	0.604
50025	12C2	0.941	1.13	1.83	1.07	0.017	0.596	1.48	0.514	0.701	0.991	2.37	0.53
50027	12C2	0.76	0.88	1.44	0.91	0.07	0.47	1.18	0.44	0.39	0.81	1.7	0.31
50029	12C2	0.804	0.919	1.19	0.659	0.0157	0.593	1.01	0.386	0.338	1.11	1.29	0.302
50032	12C1	0.85	1.19	1.7	0.87	0.1 †	0.92	1.48	0.86	0.72	0.97	2.18	0.76
50037	12C2	0.613	0.912	1.56	0.82	0.053	0.781	1.29	0.658	0.656	1.06	1.71	0.601
52494	12C2	0.31 †	0.66	1.04	0.31 †	0.0079	0.578	1.15	0.548	0.48	0.55	1.41	0.39
52526	12C1									0.5	0.5	1.6	0.4
52565	12C2					0.281 ††	0.688	1.35	0.726	0.428	0.53	1.65	0.38

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	15A1	26.4	9.89	7.11	28	0.342 ††	3.93	6.16 ††	3.42 †	5.62	7.79	14.6	3.56
21138	15A1	30	10	7.5	32	0.11	4.2	7.4	3.91	5.07	8.13	15.6	3.2
21148	15A1					0.073 †	3.9	6.91	3.8				
21178	15A1	33 ††	12 ††	8	35	0.1	4.2	7.5	4.1	5.3	8.5	16.3 †	3.7 †
21182	15A1	28.8	10.6	7.7	31.1	0.12	3.57	7.57	3.72	5.38	8.39	15.4	3.2
21193	15A1	30.1	10.2	7.6	36.8 ††	0.078	3.6	6.57 †	3.68	4.9	7.78	13.7 †	3.29
21232	15A1	28.2	10.3	8.28	30.6	0.08	3.55	7.56	3.8	5.46	7.76	15.3	3.54
50005	15A1	25.1	10.2	7.9	29.6	0.114	4.07	7.38	4.05	5.54	8.48	15.4	3.46
50011	15A1	27.3	10.3	7.27	30.7	0.131	3.82	6.85	3.79	5.01	7.29	13.3 ††	3.21
50013	15A1	27	9.85	7.32	29	0.0778	4.11	7.46	3.48	4.9	7.61	14.7	3.57
50014	15A1	29.3	10.4	7.56	31.8	0.193 ††	4.07	7.52	3.9	5.39	8.76	16.5 ††	3.42
50017	15A1	25.5	9.72	7.66	27.4	0.102	3.92	6.99	3.72	5.61	9.33 †	16.8 ††	3.25
50019	15A1					0.112	4.48	8.05	4.13				
50020	15A1	26.9	9.11	7.18	25.4 †	0.22 ††	4.1	7.19	4.51 ††	7.3 ††	10.5 ††	23 ††	3.8 ††
50023	15A1	30.2	10.5	7.75	32.4	0.16 †	4.31	7.69	4.2	4.87	8.2	14.9	3.11
50031	15A1	27.1	9.78	7.13	30.2	0.15 †	4.12	7.64	4.03	4.92	7.92	15.1	2.72 †
50036	15A1	28	10.8	7.6	32	0.11	4.46	7.35	3.96	4.9	5.7 ††	15.2	3.4
50044	15A1	22 ††	8.6 ††	6.5 ††	21 ††					5.1	7.2	12 ††	3.2
52283	15A1	30.6 †	9.92	7.95	30.4	0.115	3.64	7.03	3.83	5.04	7.7	15	3.13
52387	15A1	23.6 †	7.96 ††	5.73 ††	28.5								
52491	15A1									5.38	6.77	15.1	3.6
52494	15A1	26.8	9.64	7.01	30.4	0.131	3.95	7.08	3.95	4.99	7.55	14.7	3.2
52526	15A1	26.5	9.7	7.4	28.4	0.1	4.2	7.3	3.9	5.1	7.5	14.4	3.1
52527	15A1	27.1	9.5	7.5	29.6		3.85	6.31 ††	3.46	5.04	7.81	14.8	3.19
52558	15A1	28.1	9.82	7.4	30.5	0.37 ††	3.43	8.04	3.99	3.92 ††	5.18 ††	13.7 †	2.53 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	15A1	1.33	1.48	1.14	1.14	0.02	0.128	0.997	0.344	0.221 ††	0.736	1.57 ††	0.761 †
21138	15A1	1.27	1.45	1.1	1.3		0.14	1.1	0.43	0.13	0.73	1.3	0.64
21148	15A1					0.026 ††	0.176	1.07	0.44				
21178	15A1	1.63 ††	1.8 ††	1.35 ††	1.6 †	0.01	0.15	1.2	0.49	2.1 ††	1.3 ††	12.6 ††	0.58
21182	15A1	1.3	1.49	1.12	1.27	0.001	0.1	1.03	0.32 ††	0.14	0.69	1.25	0.61
21193	15A1	1.2	1.47	1.06	1.2	0.006	0.134	1.1	0.467	0.2 ††	0.71	1.31	0.67
21232	15A1	1.35	1.61	1.23	1.38	0.015	0.11	1.11	0.425	0.1	0.52 ††	0.95 ††	0.5 ††
50005	15A1	1.25	1.46	1.21	1.4	0.0078	0.14	1.08	0.451	0.146	0.737	1.36	0.66
50011	15A1	1.21	1.41	1.07	1.22	0.017	0.124	0.968	0.382	0.112	0.575	1.03 ††	0.521 †
50013	15A1	1.32	1.56	1.16	1.28		0.148	1.12	0.417	0.131	0.544 †	1.1 †	0.557
50014	15A1	1.38	1.61	1.18	1.37	0.0108	0.146	1.13	0.427	0.141	0.769	1.37	0.682
50017	15A1	0.148 ††	1.48	1.26	1.55	0.0107	0.14	1.21	0.426	0.122	0.689	1.5 †	0.562
50019	15A1					0.023 †	0.132	1.04	0.376				
50020	15A1	1.13	1.41	1.02	1.13		0.18	0.89 ††	0.39		0.9 ††	1.6 ††	0.7
50023	15A1	1.43	1.7	1.26	1.42	0.01	0.16	1.27 †	0.48	0.13	0.69	1.29	0.61
50031	15A1	1.36	1.62	1.2	1.44	0.01	0.119	1.15	0.438	0.123	0.738	1.37	0.657
50036	15A1	1.2	1.5	1.1	1.2		0.18	1.14	0.48	0.1	0.6	1.2	0.6
50044	15A1	1.2	1.4	1.1	1.2					0.13	0.62	1.2	0.59
52283	15A1	1.33	1.41	1.15	1.29	0.01	0.111	0.83 ††	0.28 ††	0.127	0.651	1.35	0.65
52387	15A1	0.67 ††	0.86 ††	0.63 ††	0.72 †								
52491	15A1									0.112	0.691	1.28	0.662
52494	15A1	1.3	1.48	1.14	1.31	0.013	0.141	1.1	0.418	0.135	0.653	1.28	0.627
52526	15A1	1.2	1.5	1.2	1.2		0.1	1.4 ††	0.4	0.1	0.7	1.3	0.7
52527	15A1	1.2	1.4	1.1	1.2		0.179	0.998	0.426	0.14	0.67	1.27	0.65
52558	15A1	1.28	1.56	1.16	1.37	0.14 ††	0.19	1.08	0.45	0.134	0.611	0.896 ††	0.636

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	15A1	7.92	1.14	7.85	7.79	6.15 ††	0.832	6.19	2.18	2.46 †	1.36	12.2	0.792 ††
21138	15A1	8.7	1.1	8.6	8.6	0.03	0.75	7	2.3	2.05	1.27	11.9	0.53
21148	15A1					0.017	0.777	6.64	2.19				
21178	15A1	10.8 ††	1.3 ††	9.4	10.4 ††	0.01	0.77	7	2.3	0.14 ††	0.71 ††	1.4 ††	0.69 †
21182	15A1	8.65	1.1	8.32	8.52	0.002	0.61	6.85	1.98 ††	1.98	1.2	11.2	0.48
21193	15A1	8.08	1.03	7.79	7.64	0.022	0.743	6.85	2.24	2.13	1.31	12.6	0.59
21232	15A1	8.78	1.19	8.99	8.79	0.03	0.655	6.92	2.22	2.16	1.26	11.2	0.67 †
50005	15A1	8.21	1.12	8.86	8.84	0.0334	0.715	6.89	2.49 ††	2.32	1.37	12	0.567
50011	15A1	8.26	1.08	8.14	8.24	0.019	0.681	6.18	2.07	1.85	1.05	9.74 †	0.476
50012	15A1					0.0087	0.133 ††	1.03 ††	0.413 ††				
50013	15A1	8.44	1.05	8.46	8.27		0.661	7.01	2.17	2.16	1.24	11.8	0.837 ††
50014	15A1	9.25	1.17	8.96	9.24	0.0145	0.727	7.04	2.32	2.19	1.37	12.5	0.564
50017	15A1	8.51	1.06	8.74	8.37	0.0187	0.475 ††	6.56	2.17	2.25	1.43	12.9	0.533
50019	15A1					0.016	0.662	7.29	2.37				
50020	15A1	9.15	1.18	9.11	8.93		0.62	6.77	2.72 ††	3.3 ††	1.8 ††	18.6 ††	0.7 ††
50023	15A1	8.56	1.1	8.29	8.33	0.02	0.86	7.5	2.57 ††	2	1.21	11.5	0.52
50031	15A1	8.59	1.08	8.41	8.6	0.01	0.65	7.03	2.24	1.9	1.12	12.2	0.454
50036	15A1	8.7	1.2	9.2	9		0.9	6.65	2.21	1.9	0.8 ††	11.4	0.5
50044	15A1	8	0.97	7.8	7.6					1.9	1.1	12	0.5
52283	15A1	9.04	1.08	9.01	8.78	0.02	0.636	6.64	2.36	2.12	1.2	10.8	0.547
52387	15A1	11.2 ††	1.46 ††	10.9 ††	11.1 ††								
52491	15A1									2.1	1.18	11.3	0.633
52494	15A1	8.12	1.06	8.05	8.09	0.0133	0.72	6.56	2.26	1.96	1.12	11.1	0.512
52526	15A1	8	1	8.5	8		0.8	7.2	2.3	2	1.1	11.1	0.5
52527	15A1	8.2	1	7.9	8		0.905	6.4	2.2	2.02	1.16	12	0.53
52558	15A1	8.37	0.97	8.35	8.37	0.42 ††	0.68	6.47	2.19	1.94	1.18	10.2	0.589

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	15A1	0.181 †	0.163 †	1.49	1.2	0.063 ††	0.098 ††	1.34	0.19 †	0.68 ††	0.348 ††	3.04 ††	0.309 ††
21138	15A1	0.17 †	0.187 †	1.55	1.26		0.05	1.5	0.31	0.32	0.25	2.44	0.07
21148	15A1					0.119 ††	0.206 ††	1.27	0.371 †				
21178	15A1	1 ††	0.6 ††	2.1 ††	2.2 ††	0.07 ††	0.06	1.6	1.6 ††	0.2 ††	0.2	2.2	0.2 ††
21182	15A1	0.09	0.1	1.49	1.12	0.001	0.01	0.95 ††	0.03 ††	0.27	0.15	1.97	0.04
21193	15A1	0.065	0.086	1.52	1.07	0.035 †	0.086	1.45	0.31	0.34	0.26	2.18	0.085
21232	15A1	0.699 ††	0.756 ††	1.85 ††	1.76 ††	0.01	0.045	1.47	0.26	0.37	0.26	2.22	0.12 ††
50005	15A1	0.0729	0.090	1.6	1.19	0.0010	0.046	1.48	0.282	0.328	0.224	2.27	0.0653
50011	15A1	0.084	0.094	1.5	1.08	0.011	0.047	1.37	0.255	0.29	0.182	1.91 †	0.056
50013	15A1	0.0833	0.09	1.52	1.08			1.54	0.288	0.352	0.191	2.1	0.1 †
50014	15A1	0.087	0.097	1.58	1.14	0.0043	0.047	1.53	0.272	0.359	0.242	2.52 †	0.075
50017	15A1	0.136	0.13	1.81 ††	1.46 ††	0.0107	0.052	1.62	0.281	0.343	0.262 †	3.03 ††	0.063
50019	15A1					0.012	0.027	1.49	0.264				
50020	15A1			1.58	1.14			1.32	0.43 ††		0.3 ††	3.5 ††	
50023	15A1	0.1	0.12	1.66	1.22	0.01	0.06	1.62	0.32	0.3	0.21	2.16	0.06
50031	15A1	0.069	1 ††	1.57	1.15	0.01	0.017	1.49	0.253	0.277	0.165	2.22	0.043
50036	15A1	0.1	0.1	1.6	1.2		0.11 ††	1.66	0.36 †	0.3	0.2	2.4	0.01 ††
50044	15A1	0.094	1.11 ††	1.5	1					0.29	0.18	2.1	0.059
52283	15A1	0.128	0.091	1.59	1.12	0.022	0.054	1.39	0.278	0.315	0.188	2.28	0.058
52387	15A1	0.013 †	0.053 †	1.09 ††	0.77 ††								
52491	15A1									0.298	0.184	2.26	0.0495
52494	15A1	0.426 ††	0.445 ††	1.64	1.45 ††	0.0059	0.034	1.46	0.273	0.299	0.191	2.13	0.047
52526	15A1	0.0153 †	0.032 †	1.6	1			1.6	0.2 †	0.3	0.2	2.3	0.06
52527	15A1	0.246 ††	0.241 †	1.6	1.2			1.4	0.291	0.31	0.21	2.24	
52558	15A1	0.074	1 ††	1.51	1.16	0.16 ††	0.09	1.59	0.29	0.255	0.198	1.89 †	0.056

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
8888	15D3	26.3	9.73	7.28	27.1	0.119 †	4	7.24	3.84	5.16	6.36	14.6	3.29
10166	15D3	26.6	8.8 ††	8.07 ††	25.8					4.8	5.8	15.1	3.5
10173	15D3	27.1	10.6 †	7.78 ††	31	0.349 ††	4.16	7.92 ††	4.19 †	5.16	7.11	15.3	3.51
10181	15D3	24.4 †	9.39	7.3	25.8	0.101	3.86	7.06 †	3.64 †	4.92	6.14	14.8	3.23
20204	15D3	28.1	9.95	7.27	31.3	0.108	2.97 ††	6.2 ††	3.19 ††	4.04 ††	5.73	14	2.66 ††
21043	15D3	26.9	9.88	7.21	27.8	0.098	3.96	7.23	3.82	4.86	6.82	15.5	3.14
21088	15D3	27.3	10	7.34	28.8	0.097	3.91	7.3	3.73 †	5.25	6.01	14.2	3.19
21100	15D3	26.6	9.92	7.34	29.6	0.183 ††	4.02	7.18	3.84	4.95	5.9	14.6	3.24
21115	15D3	27	9.59	7.45	29	0.1	3.63 †	6.68 ††	3.41 ††	5.08	5.96	15.6	3.25
21190	15D3	9.76 ††	12.9 ††	9.35 ††	37.8 ††	0.247 ††	4.34 †	7.79 ††	4.59 ††	5.42	8.01 ††	17.4 ††	3.7 ††
21229	15D3	30 ††	10.6 †	7.36	32.2	0.097	4.25 †	7.34	3.94 †	5.02	6.35	15	3.22
21234	15D3	20.8 ††	8.05 ††	6.52 ††	23.5					4.41 ††	5.39	13.6	3
50005	15D3	26	10.3	7.41	27.8	0.106	3.88	7.21	3.88	5.09	6.88	14	3.33
50007	15D3	17.4 ††	9.55	6.91 ††	21.1 ††	0.097	3.63 †	7.08 †	3.84	5.27	6.1	12.5 ††	3.73 ††
50018	15D3	27.9	10.2	7.28	31.1	0.115	3.96	7.26	3.82	5.15	6.36	14.9	3.23
50020	15D3	31.5 ††	10.1	7.59 †	32.7				4.21 †		5.7	13.4 ††	2.5 ††
50024	15D3	25.5	9.81	6.93 †	27.4	0.086	3.85	7.03 †	3.84	5.05	6.68	15.6	3.3
50025	15D3	27.7	10.1	8.41 ††	32	0.19 ††	3.97	7.16	3.78	5.35	6.44	16.1	3.53
50027	15D3	27.7	10	7.46	29.4	0.137 †	4.02	7.26	3.95 †	4.94	6.25	14.2	3.34
50029	15D3	22 ††	8.76 ††	6.18 ††	22.3 †	0.117	3.24 ††	6.08 ††	3.22 ††	4.96	6.91	14.5	3.24
50030	15D3	27.3	9.75	7.37	28.9	0.11	3.73 †	7.27	3.75 †				
50032	15D3	28.6	9.96	7.29	30.4	0.05 ††	4.3 †	8.16 ††	4.13 †	4.64 †	5.82	14.5	3.24
50037	15D3	27.9	10.2	7.26	31.1	0.113	3.97	7.25	3.83	5.17	6.37	14.9	3.24
52434	15D3	33 ††	11.7 ††	7.96 ††	34.9 †	0.11	4.39 †	7.82 ††	3.89	5.1	7.22 †	15.5	3.32
52437	15D3	35 ††	6.32 ††	4.96 ††	2.48 ††					1.79 ††	1.84 ††	6.54 ††	1.39 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
8888	15D3	1.32 †	1.6	1.2	1.28	0.023 ††	0.151	1.07	0.459	0.137	0.662	1.26	0.637
10166	15D3	1.23	1.21 †	1.1	1.21					0.2	0.7 †	1.3	0.7 †
10173	15D3	1.33 †	1.54	1.17	1.34	0.0197 ††	0.126 †	1.13 †	0.479 ††	1.65 ††	0.696 †	1.31	0.65
10181	15D3	1.16 †	1.31	1.03	1.16	0.011	0.142	1.04	0.43	0.129	0.622	1.14	0.606
20204	15D3	1.34 †	1.5	1.18	1.41	0.034 ††	0.123 †	1.24 ††	0.421	0.175	0.646	1.38	0.69 †
21043	15D3	1.29	1.54	1.15	1.3	0.016 †	0.146	1.09	0.441	0.135	0.708 †	1.26	0.618
21088	15D3	1.26	1.35	1.12	1.3	0.01	0.138	1.08	0.417	0.145	0.592	1.33	0.597
21100	15D3	1.23	1.44	1.11	1.23	0.0162 †	0.141	1.06	0.427	0.125	0.609	1.2	0.621
21115	15D3	1.28	1.54	1.19	1.33	0.01	0.15	1.12	0.44	0.15	0.63	1.28	0.65
21190	15D3	1.36 ††	1.4	1.16	1.32	0.012	0.144	1.18 ††	0.47 †	0.501 ††	1.13 ††	1.36	1.01 ††
21229	15D3	1.24	1.55	1.16	1.25	0.0111	0.147	1.12	0.442	0.131	0.637	1.21	0.613
21234	15D3	0.92 ††	1.27	1 †	1 ††					0.142	0.623	1.24	0.64
50005	15D3	1.2	1.35	1.06	1.21	0.0116	0.139	1.08	0.44	0.137	0.663	1.27	0.624
50007	15D3	1.02 ††	1.37	0.996 †	1.11	0.013	0.143	1.15 †	0.446	0.134	0.635	1.15	0.563 †
50018	15D3	1.36 ††	1.41	1.09	1.37	0.0115	0.142	1.07	0.402	0.134	0.602	1.13	0.531 ††
50020	15D3	1.37 ††	1.66 †	1.21 †	1.29	0.07 ††			0.42	0.1	0.6	1.1	0.6
50024	15D3	1.24	1.51	1.09	1.23	0.011	0.131	1.05	0.418	0.122	0.625	1.19	0.601
50025	15D3	1.22	1.49	1.24 †	1.36	0.009	0.132	1.04	0.405	0.14	0.619	1.22	0.636
50027	15D3	1.22	1.41	1.1	1.22	0.016 †	0.137	1.05	0.428	0.127	0.66	1.17	0.636
50029	15D3	1.37 ††	1.31	1.07	1.38	0.0056 †	0.103 ††	1.02	0.347 ††	0.144	0.63	1.44 †	0.567 †
50030	15D3	1.25	1.46	1.13	1.24	0.01	0.13 †	1.07	0.42				
50032	15D3	1.22	1.5	1.1	1.22	0.015 †	0.231 ††	1.8 ††	0.793 ††	0.22	1.09 ††	2.02 ††	1.07 ††
50037	15D3	1.37 ††	1.42	1.1	1.38	0.0116	0.143	1.07	0.401	0.135	0.601	1.12	0.532 ††
52434	15D3	1.48 ††	1.7 †	1.3 ††	1.51 ††	0.02 ††	0.15	1.25 ††	0.43	0.15	0.72 †	1.35	0.66
52435	15D3	1.17	1.58	1.12	1.24	0.02 ††	0.18 ††	1.92 ††	0.57 ††				
52436	15D3	1.09 ††	1.39	1.01 †	1.11	0.046 ††	0.19 ††	1.38 ††	0.56 ††	0.136	0.665	1.3	0.392 ††
52437	15D3	0.788 ††	0.168 ††	0.218 ††	2.09 ††					0.67 ††	0.36 ††	0.35 ††	0.12 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
8888	15D3	8.17	1.08	8.47	7.86	0.014	0.595	6.45	2.1	2.05	1.11	11.4	0.516
10166	15D3	7.87	1.07	8.5	8.48					2.1	1.2 †	12.2	0.6 †
10173	15D3	8.55 †	1.13 ††	8.71	8.77 †	0.0777 ††	0.69	6.5	2.48 †	1.99	1.17 †	11.9	0.58 †
10181	15D3	7.89	1.06	7.97	8.16	0.018	0.626	5.58 ††	2.1	1.9	1.08	11.3	0.506
20204	15D3	8.29	1.2 ††	8.15	8.5	6.29 ††	0.652	6.81	2.23	1.76 ††	1.11	10.3	0.592 †
21043	15D3	8.37	1.1	8.41	8.32	0.017	0.643	6.87	2.29	2	1.24 ††	11.6	0.51
21088	15D3	8.16	1.03 †	8.17	8.16	0.01 †	0.598	6.69	2.1	1.98	0.952 ††	10.2 †	0.476
21100	15D3	8.1	1.07	8.15	8.07	0.0245 †	0.673	6.42	2.22	2.01	1.03 †	10.8	0.51
21115	15D3	8.06	1.02 ††	8.26	8.17	0.02	0.61	6.28	2.05 †	2.06	1.06 †	11.6	0.5
21190	15D3	2.02 ††	1.31 ††	8.12	8.48	0.034 ††	0.955 ††	7.43 ††	2.64 ††	2.02	1.01 †	11.8	0.212 ††
21229	15D3	8.32	1.07	8.58	8.15	0.0163	0.76 †	6.86	2.29	2	1.09	11.1	0.494
21234	15D3	8.13	0.97 ††	8.9	7.23 †					2.43 ††	1.3 ††	15.2 ††	0.65 ††
50005	15D3	8.39	1.1	8.24	8.35	0.0314 ††	0.649	6.73	2.31	2.06	1.17 †	11	0.54
50007	15D3	7.99	0.992 ††	8.58	8.58	0.016	0.599	6.29	2.18	2.31 ††	1.11	10.9	0.531
50018	15D3	8.14	1.07	8.36	8.1	0.0184	0.574	6.72	2.22	2.05	1.11	11.4	0.541
50020	15D3	10.7 ††	1.35 ††	10.7 ††	10.5 ††				2.48 †	2.1	1.2 †	13 ††	0.5
50024	15D3	8.05	1.11	7.99	7.93	0.015	0.575	6.3	2.2	1.92	1.1	10.3	0.507
50025	15D3	7.9	1.08	8.99	8.79 †	0.062 ††	0.668	6.43	2.24	2.02	1.14	10.7	0.565
50027	15D3	8.27	1.08	8.23	8.1	0.02	0.697	6.74	2.38 †	1.95	1.11	10.6	0.551
50029	15D3	7.02 ††	0.913 ††	7.29 ††	6.94 ††	0.0177	0.5	5.75 †	1.83 ††	1.93	1.09	11.2	0.495
50030	15D3	8.49	1.06	8.6	8.59	0.01 †	0.6	6.5	2.2				
50032	15D3	7.68 †	1.09	7.69	7.69	0.001 ††	0.554	6.3	2.13	1.99	1.11	11.7	0.6 †
50037	15D3	8.12	1.08	8.37	8.09	0.0186	0.576	6.71	2.22	2.06	1.12	11.4	0.543
52434	15D3	9.23 ††	1.15 ††	9.05	9.54 ††	0.01 †	0.97 ††	7.18 †	2.34 †	2.14 †	1.22 †	12.5 †	0.59 †
52437	15D3	4.59 ††	4.69 ††	2.7 ††	1.25 ††					0.79 ††	0.33 ††	2.09 ††	0.25 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
8888	15D3	0.104	0.119	1.61	1.11	0.026 ††	0.066	1.44	0.304	0.323	0.198	2.27	0.055
10166	15D3	0.087	0.11	1.3 ††	0.87 ††					0.1 ††	0.2	1.8 ††	0.1 ††
10173	15D3	0.14 ††	0.122	1.53	1.17	0.0303 ††	0.061	1.2 ††	0.34 †	0.315	0.194	2.23	0.0904 ††
10181	15D3	0.086	0.084	1.39 †	0.974 ††	0.01	0.052	1.38 †	0.27	0.289 †	0.186	2.06 †	0.057
20204	15D3	0.2 ††	0.17 ††	1.51	1.26 ††	0.057 ††	0.114 ††	1.36 †	0.304	0.296	0.17	1.97 ††	0.132 ††
21043	15D3	0.089	0.099	1.59	1.15	0.011	0.05	1.49	0.288	0.307	0.214	2.25	0.058
21088	15D3	0.125	0.128	1.64	1.26 ††	0.012	0.046	1.53	0.277	0.317	0.186	2.35	0.058
21100	15D3	0.0937	0.102	1.55	1.11	0.0268 ††	0.065	1.44	0.285	0.302	0.194	2.2	0.06
21115	15D3	0.1	0.11	1.6	1.12	0.04 ††	0.08 †	1.49	0.3	0.33 †	0.2	2.23	0.07 †
21190	15D3	0.196 ††	0.183 ††	1.61	1.16	0.013	0.011 †	1.51	0.332 †	0.369 ††	0.236 ††	2.3	0.055
21229	15D3	0.0875	0.11	1.66	1.13	0.011	0.053	1.53	0.284	0.31	0.195	2.2	0.0576
21234	15D3	0.059	0.065 ††	1.33 ††	0.82 ††					0.23 ††	0.168	1.72 ††	0.062
50005	15D3	0.104	0.116	1.51	1.14	0.02 †	0.055	1.52	0.285	0.31	0.211	2.13	0.0714 †
50007	15D3	0.112	0.139 †	1.24 ††	1.01 †	0.012	0.061	1.58 †	0.294	0.336 †	0.255 ††	2.5 ††	0.083 ††
50018	15D3	0.1	0.099	1.28 ††	1.04	0.0143	0.050	1.45	0.278	0.313	0.185	2.08	0.0564
50020	15D3			1.82 ††	1.25 ††				0.27		0.2	2.2	
50024	15D3	0.109	0.089	1.55	1.11	0.01	0.041	1.42	0.273	0.296	0.188	2.17	0.054
50025	15D3	0.125	0.128	1.57	1.25 ††	0.052 ††	0.089 †	1.45	0.307	0.362 ††	0.245 ††	2.25	0.115 ††
50027	15D3	0.085	0.099	1.56	1.14	0.017 †	0.05	1.46	0.294	0.31	0.202	2.22	0.071 †
50029	15D3	0.159 ††	0.107	1.38 †	1.08	0.0026 †	0.030	1.24 ††	0.205 ††	0.266 †	0.173	2.16	0.0502
50030	15D3	0.07	0.07 †	1.57	1.1	0.01	0.03	1.46	0.21 ††				
50032	15D3	0.085	0.107	1.52	1.1	0.007	0.026	0.855 ††	0.175 ††	0.16 ††	0.11 ††	1.21 ††	0.038 ††
50037	15D3	0.101	0.098	1.29 ††	1.03 †	0.0142	0.050	1.45	0.28	0.314	0.186	2.09	0.0563
52434	15D3	0.18 ††	0.23 ††	1.6	1.15	0.05 ††	0.16 ††	1.8 ††	0.33 †	0.32	0.28 ††	2.03 †	0.13 ††
52437	15D3	1.18 ††	2.32 ††	1.32 ††	0.261 ††					0.21 ††	0.77 ††	0.9 ††	0.8 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Exchangeable Al — 1M KCl (15G1) cmol+/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
20204	15G1	0.007	0.008	0.005	0.007	0.029	0.001	0.001	0.106	0.018	0.14 ††	0.008	0.014
21043	15G1	0.001	0.001	0.001	0.001	0.086	0.001	0.001	0.325	0.026	0.809	0.001	0.012
21088	15G1	0.005	0.005	0.005	0.005	0.08	0.005	0.005	0.28	0.02	0.61	0.005	0.01
21100	15G1	0.0208 †	0.030 ††	0.017 †	0.0134 †	0.0382	0.026 †	0.00442	0.298	0.028	0.802	0.012	0.028
21148	15G1					0.008	0.004	0.003	0.012				
21178	15G1	0.01	0.005	0.005	0.006	0.021	0.001	0.001	0.0975	0.001 ††	0.71	0.001	0.001
21229	15G1	0.0091	0.007	0.010	0.0018	0.121	0.038 †	0.0433 ††	0.41	0.0236	0.801	0.00403	0.00971
21232	15G1	0.057 ††	0.065 ††	0.048 ††	0.044 †	0.132	0.139 ††	0.069 ††	0.47	0.075 ††	0.66	0.04 ††	0.07 ††
50005	15G1	0.0124	0.014	0.008	0.0075	0.046	0.010	0.00361	0.123	0.0306	0.658	0.0395 ††	0.0132
50011	15G1	0.002	0.002	0.002	0.002	0.107	0.002	0.002	0.303	0.013	0.698	0.005	0.005
50013	15G1								0.165	0.163 ††	0.659		
50014	15G1	0.001	0.001	0.001	0.001	0.14	0.020	0.0103 †	0.0204	0.041	0.714	0.0011	0.0202
50017	15G1	0.007	0.008	0.003	0.006	0.122	0.003	0.00363	0.404	0.0334	0.938	0.006	0.0132
50018	15G1	0.0053	0.009	0.005	0.0055	0.136	0.006	0.0054	0.306	0.0311	0.792	0.0083	0.021
50027	15G1	0.005	0.005	0.005	0.005	0.15	0.005	0.005	0.37	0.028	0.91	0.0025	0.005
50029	15G1	0.0483 ††	0.056 ††	0.026 ††	0.0527 †	0.0758	0.048 ††	0.01 †	0.133	0.0359	0.604	0.0318 ††	0.0604 ††
50030	15G1	0.01	0.01	0.01	0.01	0.13	0.01	0.01 †	0.55				
50032	15G1	0.021 †	0.05 ††	0.023 ††	0.03 †	0.158	0.028 †	0.023 ††	0.362	0.018	0.879	0.008	0.022
50037	15G1	0.0051	0.009	0.005	0.0053	0.135	0.006	0.0052	0.302	0.031	0.793	0.0084	0.02
52494	15G1	0.0261 †	0.078 ††	0.026 ††	0.0261 †	0.235	0.052 ††	0.052 ††	0.339	0.035	0.747	0.03 ††	0.03
52526	15G1	0.01			0.001	0.2			0.4	0.03	0.7	0.1 ††	0.01
52527	15G1					0.2	0.011	0.096 ††	0.311		0.5		

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Al – Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
22	18F1	799	907	640	648	361	1170	553	629	834	2250	848	466
8888	18F1	781	843 †	638	622	343	1100	566	618	831	2030	836	477
10156	18F1	728	782 ††	603 ††	604	326	1240	609	609	275 ††	1120 ††	495 ††	483
21100	18F1	752	850 †	629	636	370	1180	597	697	757 †	1950	807	411
21178	18F1	930	990	750 ††	760	336	1210	655	710	820	2200	910	440
21229	18F1	875	954	666	708	379	1270	635	705	824	2120	891	496
21232	18F1	828	946	657	646	318	1210	600	674	753 †	1860	800	433
50005	18F1	1000	997	651	787	391	1160	633	657	1160 ††	1900	312 ††	755 ††
50014	18F1	905	960	666	732	335	1160	628	671	857	2040	872	478
50018	18F1	792	965	660	671	354	1150	552	631	831	2320	852	475
50020	18F1	861	960	650	670	501 ††	1560 ††	796 ††	922 ††	1110 ††	3210 ††	1130 ††	679 ††
50024	18F1	827	944	653	664	363	1200	614	682	864 †	2190	872	468
50037	18F1	793	967	662	670	356	1150	550	630	831	2320	852	475
50042	18F1	966	998	820 ††	825 †	416	1520 ††	675	765	729 †	1940	692 †	369 †
52283	18F1	856	907	735 ††	723	373	1280	662	673	817	2130	898	394 †
52491	18F1									905 †	2400	951	536 †
52565	18F1					282 †	152 ††	341 ††	401 ††	612 ††	2050	756	292 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable B – Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
22	18F1	0.633	0.656	1.04	0.94 †	0.042	0.61	0.835	0.171	0.314	0.606	2.11	0.216
8888	18F1	0.832	0.673	1.17	1.33	0.064	0.696	1.08	0.442	0.293	0.497	1.87	0.253
10156	18F1	3.2 ††	3.67 ††	3.12 ††	3.27 ††	0.173 †	0.699	0.839	0.335	0.073	1.83 ††	2.16	0.432 †
21100	18F1	1.2	1.03	1.49	1.63 †	0.135	0.738	1.04	0.257	0.415	0.517	2.24	0.328
21178	18F1	0.96	0.85	1.3	1.4	0.065	0.96 †	1.4	0.46	0.57	0.48	2.4	0.65 ††
21229	18F1	0.877	0.791	1.16	1.25	0.024	0.889 †	1.15	0.267	0.305	0.433	2.21	0.192
21232	18F1	0.9	0.87	1.11	1.26	0.1	0.081 ††	1.08	0.255	0.72 †	0.47	1.98	0.5 †
50005	18F1	0.944	0.785	1.14	1.24	0.157	2.48 ††	1.21	0.583 †	0.198	0.199	0.756 ††	0.238
50014	18F1	0.878	0.686	1.09	1.27	0.0179	0.697	1.06	0.201	0.232	0.369	2.09	0.189
50018	18F1	0.75	0.62	1.03	1.09	0.0362	0.71	0.942	0.322	0.333	0.386	1.89	0.238
50020	18F1	1.07	0.987	1.5	1.39	0.59 ††	1.09 †	1.53	0.69 ††	0.62	0.7	1.65	0.55 †
50024	18F1	1.07	0.95	1.32	1.32	0.073	0.207 †	0.787	0.028	0.2	0.31	1.77	0.14
50037	18F1	0.77	0.61	1.02	1.08	0.0364	0.72	0.941	0.323	0.334	0.384	1.9	0.241
50042	18F1	0.63	0.33	0.96	1.1	0.01	0.76	0.9	0.21	0.13	0.22	1.5 †	0.09
52283	18F1	1.06	0.62	1.07	1.18	0.043	1.14 †	1.3	0.403	0.38	0.563	2.53	0.244
52491	18F1									0.695 †	0.841 †	2.1	1.1 ††
52565	18F1									1.45 ††	0.55	2.15	0.108

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Ca – Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
22	18F1	5040 †	1980	1360	5410	29.7	750 †	1240	674	1000 †	1390	2790	702 †
10156	18F1	2130 ††	1370 ††	559 ††	3640 ††	45.6 ††	883	1540	818	28 ††	759 ††	1150 ††	594 ††
21100	18F1	5120	1990	1430	5680	39.8 †	916	1550	856	1100	1390	3260 †	762
21178	18F1	5450	2160	1460	6070	19	839	1390	770	1080	1400	3100	750
21229	18F1	5500	2030	1400	5850	22.2	861	1470	782	1080	1290 †	3040	752
21232	18F1	5400	2200	1530	5930	24.3	942	1530	844	1050	1320	2850	754
50005	18F1	5990 †	2320	1600 ††	6440	54.8 ††	859	1400	803	1850 ††	1680 ††	2830	1370 ††
50014	18F1	5360	2120	1450	5800	28	862	1510	797	1120	1340	2930	759
50018	18F1	5360	2020	1420	6000	24.8	810	1390	748	1080	1390	2860	766
50020	18F1	5300	2070	1430	5580		1100 ††	1750 ††	948 ††		1820 ††	4100 ††	1150 ††
50024	18F1	4180 ††	1970	1370	5090 †	20.4	866	1440	800	1120	1350	2910	781
50037	18F1	5360	2020	1420	6000	24.8	811	1390	750	1090	1390	2850	768
50042	18F1	1940 ††	1180 ††	566 ††	2730 ††	51 ††	822	1120 ††	666	943 †	1080 ††	2300 ††	562 ††
52283	18F1	5170	2190	1400	6170	22.8	843	1450	784	1060	1310	2920	732
52384	18F1									1180 †	1520 †	3160	863 ††
52491	18F1									1060	1400	2980	753
52565	18F1					18.9	814	1360	698	1180 †	1590 †	3260 †	780

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Cu - Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	18F1	2.77	2.78	2.11	3.28	0.143	1.2	2.18	0.349	2.33	0.475	3.2	0.911
8888	18F1	3.04	2.72	2.2	4.03	0.11	0.955	2.49	0.373	2.39	0.396	3.56	0.984
10156	18F1	3.57	2.8	2.97 ††	3.6	0.381 ††	1.23	2.62	0.55	0.0506 ††	0.967 ††	2 †	0.205 ††
21100	18F1	3.46	3.31 ††	2.54	4.07	1.1 ††	1.58 †	3.64 ††	1.13 ††	2.19	0.547	3.08	0.797
21178	18F1	3.4	3.1 †	2.3	4.1	0.036	0.79	2.1	0.24	2.5	0.56	3.6	0.96
21229	18F1	2.97	2.67	1.79	3.54	0.0425	0.814	2.13	0.272	2.3	0.482	3.52	0.908
21232	18F1	2.92	2.72	2.05	3.51	0.06	0.89	2.32	0.17	1.97	0.39	2.97	0.79
50005	18F1	2.81	2.42 †	1.84	3.47	0.575 ††	1.07	3.29 ††	0.602	2.16	0.835 ††	1.55 ††	1.03
50014	18F1	3.26	3.04 †	2.09	3.93	0.0943	1.11	2.53	0.263	2.48	0.52	3.51	0.94
50018	18F1	2.91	2.73	2.06	3.45	0.0549	0.761	2.3	0.416	2.35	0.452	3.03	0.792
50020	18F1	2.68	2.84	1.77	3.22		0.2	1.43 ††		2.93 †	0.67	3.87	1.3
50024	18F1	2.1 †	2.13 ††	1.5	2.64 ††	0.126	0.64	2.24	0.386	2.04	0.37	2.86	0.79
50037	18F1	2.92	2.75	2.08	3.47	0.0548	0.758	2.28	0.412	2.36	0.456	3.03	0.792
50042	18F1	2.7	2.3 ††	1.9	3.3	0.02	0.18	1.5 †	0.1	1.3 ††	0.27	2 †	0.1 ††
52283	18F1	3.19	2.64	2.24	3.34	0.048	0.816	2.47	0.444	2.36	0.486	3.43	0.833
52384	18F1									2.66	0.56	3.66	1.23
52491	18F1									2.2	0.364	3.5	0.976
52565	18F1					0.119	0.597	1.49 †	0.422	1.82	0.27	2.86	0.441 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Fe – Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	18F1	134	157	97.1	80.1	46.7	2250	127	582	277	110	106	106
8888	18F1	169	170	103	79.7	55	2720	142	570	289	106	110	151
10156	18F1	211 †	189	168 ††	103 †	44.7	2840	216 ††	739 †	36.7 ††	42500 ††	154 †	8310 ††
21100	18F1	131	145	93.1	69	55.6	2070	159	638	208	95.4	81.6 †	86.1
21178	18F1	180	200	125 †	98 †	45	2180	158	600	250	110	100	110
21229	18F1	156	161	112	85.3	56.1	2140	154	625	260	109	105	118
21232	18F1	127	134	86.5	62.2 †	47.1	2320	155	506	220	94.2	87.5	113
50005	18F1	113	102	78.3 †	53.6 †	103 ††	3050	195	574	305	203 ††	87.9	233 ††
50014	18F1	159	177	105	83.2	50.4	2380	145	516	297	107	109	137
50018	18F1	136	150	106	83	52.6	2290	125	578	275	135 †	108	133
50020	18F1	153	172	101	78.7	66.4 †	3000	215 ††	715	318	143 ††	123	158
50024	18F1	120	131	84.2	65.3	47.7	1830	141	555	259	100	101	112
50037	18F1	138	151	105	82	52.6	2290	126	580	274	137 †	107	132
50042	18F1	144	127	97	79	52	2490	156	683	221	102	79 †	84
52283	18F1	162	208	127 †	95.8	54.9	2730	173	710	276	114	101	97.2
52384	18F1									340	114	128 †	131
52491	18F1									314	116	132 †	171
52565	18F1					36.5	6890 ††	62.6 ††	322 ††	171 †	88.2	74 †	69.4

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable K – Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
22	18F1	436	561	406	429	5.23	59.7	378	153	50.5	245	448	249
10156	18F1	167 ††	336 ††	178 ††	193 ††	104 ††	147 ††	443	237 ††	6.31 ††	61.7 ††	365 ††	148 ††
21100	18F1	406 †	516	396	424	7.49	67.8	419	174	51.2	252	457	249
21178	18F1	447	542	418	460	4.7	68	420	175	57	250	460	250
21229	18F1	440	546	398	445	5.41	62.7	397	163	51.8	242	461	243
21232	18F1	457	579	441	473	6.48	64.7	406	165	53.5	233	427	231
50005	18F1	558 ††	586	456	560 ††	4.65	49.2 †	367	129 †	61.9	267	569 ††	259
50014	18F1	459	581	420	464	4.87	62.3	433	168	50.7	238	436	241
50018	18F1	445	524	415	453	5.93	59.8	402	162	48.4	236	411 †	216 ††
50020	18F1	427	550	391	419	13.7 ††	66.5	382	160	64	202 ††	359 ††	205 ††
50024	18F1	382 †	538	396	427	5.43	64.3	414	169	53.3	246	463	249
50037	18F1	446	525	417	456	5.91	59.6	401	161	48.4	235	410 †	215 ††
50042	18F1	245 ††	436 ††	275 ††	275 ††	2 ††	18 ††	142 ††	46 ††	38 †	214 †	448	163 ††
52283	18F1	532 ††	518	433	497	5.9	58.7	383	130 †	48.2	243	474	243
52384	18F1									53.3	264	499	254
52491	18F1									67 †	245	470	247
52565	18F1					2.07 ††	53	358	141	88.7 ††	433 ††	784 ††	422 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Mg – Mehlich3 (18F1) mg/k											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	18F1	945	134	1020	965	2.95	91.9	785	252 †	242 †	131	1480	66.9
10156	18F1	433 ††	106 ††	402 ††	568 ††	4.3 †	112	773	259	2.12 ††	83.8 ††	511 ††	169 ††
21100	18F1	955	128 †	967	1020	3.73	107	861	305 †	256	124	1390	69
21178	18F1	1030	135	1000	1070	2.1 †	108	785	275	260	130	1450	72
21229	18F1	1040	139	1020	1060	3.02	103	853	278	245	131	1430	70.7
21232	18F1	1030	147 †	1080	1060	3.29	109	846	286	253	124	1390	75.7 †
50005	18F1	1120	135	1080	1130	10.5 ††	144 †	896	361 ††	270 †	133	1150 ††	86.7 ††
50014	18F1	990	143	960	1030	3.56	104	827	279	265	131	1460	71
50018	18F1	941	132	961	951	3.35	95.3	867	278	256	125	1520	67
50020	18F1	1030	137	1020	1040		126 †	974 †	322 †		167 ††	2150 ††	108 ††
50024	18F1	796 ††	137	963	954	2 †	104	818	277	256	123	1400	68.9
50037	18F1	942	131	963	950	3.34	95.2	864	276	258	126	1520	67.2
50042	18F1	416 ††	85 ††	419 ††	485 ††	6.6 ††	65 †	508 ††	164 ††	174 ††	70 ††	945 ††	30 ††
52283	18F1	1030	137	1040	1100	3.13	105	841	289	255	129	1400	69
52384	18F1									280 †	141	16400 ††	75.9 †
52491	18F1									249	136	1430	70
52565	18F1					2.36	92.1	756	251 †	191 ††	117	1310	49.2 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Mn – Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
22	18F1	296	570	330	396	0.342	25.1	331	12.8	18.1	82.4	243	32.1
8888	18F1	416 ††	760 ††	364 †	397	0.47	28	360	14.9	19.2	85.8	260	32.8
10156	18F1	248	577	330	367	0.243	27.6	351	16.2	0.28 ††	31.7 ††	5410 ††	13.6 ††
21100	18F1	311	551	338 †	408	0.605	24.9	353	16.2	19	78	237	33
21178	18F1	330	610 †	360 †	440	0.18	27	375	15	19	78	250	32
21229	18F1	309	572	330	397	0.287	25.1	383 †	14	19	76.3	231	32.3
21232	18F1	272	511 †	302 †	314	0.72	30.2	328	15.8	18.7	77	206	32.9
50005	18F1	212	591	330	212 ††	0.478	29.8	512 ††	18.3 ††	39.4 ††	176 ††	142 ††	68.8 ††
50014	18F1	335	625 †	350 †	440	0.331	29.1	363	15.8	21 †	83	265	36.3
50018	18F1	287	571	330	394	0.294	25.9	349	14.3	18.6	81.2	254	34.9
50020	18F1	299	584	313 †	373		36.6 ††	432 ††	19.6 ††	23 ††	97 ††	270	45 ††
50024	18F1	241	489 ††	284 †	318	0.142	25.9	352	14.7	19.7	77.2	240	34.3
50037	18F1	289	572	331	396	0.292	25.8	348	14.3	18.8	81.4	256	34.9
50042	18F1	228	463 ††	235 ††	313	0.6	12 ††	373	4.3 ††	0.12 ††	50 ††	195	12 ††
52283	18F1	283	585	331	435	0.318	27.1	345	14.1	18.4	74.2	220	30.9
52384	18F1									10.1 ††	80.8	275	28.9
52491	18F1									18	80	248	31
52565	18F1					0.119	19.7 ††	0.0831 ††	11.9	14.9 ††	76.5	190 †	23.6 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Na - Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
22	18F1	16.4	22.2	335	224	2.9	15.7	302 †	57.5	69	48.8	497	17.1
10156	18F1	1.21 †	1.72 ††	14 ††	10.8 ††	4.3	21	206 ††	47.9 †	7.2 ††	16.4 ††	214 ††	43 ††
21100	18F1	10.5	16	361	263	6.79 †	18	323	67	61.6 †	39.5	444 ††	11.9
21178	18F1	21	23	346	273	2.2	16	325	64	71	48	510	14
21229	18F1	20.5	23.8	340	256	0.247 †	25.1 †	383 †	14 ††	73.7	45.1	515	13.2
21232	18F1	155 ††	277 ††	326	285	2.71	16.5	338 †	64.2	76	52.9	510	22.6
50005	18F1	30.8	35.1 †	371	275	7.55 †	19	325	60.7	84.1 †	56.3	508	23.4
50014	18F1	21.7	24.3	348	261	7.21 †	19.6	357 †	68.8	71	44.4	503	15
50018	18F1	23.6	25.4	311	235	2.34	17.5	325	61.3	70.6	48.5	501	16.4
50020	18F1	13.7	17.6	328	231	10.2 ††	30.8 ††	533 ††	112 ††	87 ††	54	674 ††	16.4
50024	18F1	13.2	17.6	267 ††	182	3.4	16.2	338 †	65.7	70.7	43.5	491	13.6
50037	18F1	23.8	25.6	310	237	2.32	17.5	324	61.3	70.2	48.5	502	16.3
50042	18F1	31	32	369	290	11 ††	30 ††	405 ††	75	63 †	55	606 ††	20
52283	18F1	23.4	17.8	356	240	2.54	14.6	322	62.5	72.2	40.9	520	16
52491	18F1									67	41	510	11
52565	18F1							395 †	38 ††	3.55 ††	7.82 ††	14.8 ††	24

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable P - ICP — Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	18F1	25.9	23	18.7	17.6	2.32	39.6	17.1	29	8.18 †	8.47	22.4	48
8888	18F1	25.5	21.9	19.9	17.5	4 †	42.7	19.7	30.8	6.42	8.62	22.8	49.1
10156	18F1	32.4	26.5 †	26.1 ††	25.9 ††	5.1 ††	67.5	29.2 ††	42.6 ††	5.11 †	140 ††	52 ††	84.6 ††
21100	18F1	30.6	24.1	21.4	20.5	1.31	7.34	21.7	31.1	5.67	7.69 †	23.8	44.1
21178	18F1	26.7	22.1	19.1	20.9	1.4	13	20	31	6.5	8.5	25	45
21229	18F1	28	24.8	19.9	19.8	1.83	41.8	19	30.9	7.04	9.52	24.3	47.9
21232	18F1	30.1	23.9	20.6	20.3	1.25	45.6	18.2	26.3	6.52	8.81	22.7	45.2
50005	18F1	28.2	24.4	19.1	19.2	3.28 †	39.3	19.2	23.5	8.92 ††	15.2 ††	9.91 ††	135 ††
50014	18F1	29.2	25.5	19.3	19.5	1.35	13.8	19.1	26.9	6.78	9.03	24.3	50.9
50018	18F1	25.4	23.6	19.2	18.6	2.33	39.7	16.6	29	6.42	8.54	22.8	48.8
50020	18F1	41.3 ††	37.1 ††	32.9 ††	34.9 ††		18.1	13.1 ††	16.9 ††		5.1 ††	27.4 ††	61 ††
50024	18F1	25.9	23.4	18.2	18.3	1.45	8.39	18.9	31.1	6.98	9.64 †	24.1	48.9
50037	18F1	25.5	23.6	19.3	18.6	2.32	39.8	16.4	28.9	6.41	8.54	22.8	48.7
50042	18F1	8.2 ††	8.2 ††	6 ††	2.9 ††	7 ††	8.4	6.4 ††	4.4 ††	3 ††	2.8 ††	3.2 ††	1.2 ††
52283	18F1	24.8	30.3 ††	18.5	32.2 ††	2.26	11	18.6	28.1	6.38	8.91	23.4	41.6 †
52384	18F1									6.09	7.2 †	21.1	47.6
52491	18F1									8.4 †	12 †	27 †	53 †
52565	18F1					1.35	32.3	12.2 ††	17.7 ††	3.46 ††	5.01 ††	18.9 ††	31.3 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable S - Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	18F1	21.6	40.2	16.4	18.2	20.1	29.5	13.7	34.2	25.6	54.7	14.5	13.2
10156	18F1	5.24 ††	8.04 ††	4.18 ††	7.15 ††	83.8 ††	81.6 †	85.1 ††	86.5 ††				
21100	18F1	101 ††	85.6 ††	44.2 ††	111 ††	103 ††	66 †	86.8 ††	100 ††	163 ††	177 ††	151 ††	74.2 ††
21178	18F1	23	44	17	22	15	31	15	36	19 ††	42	13	10
21229	18F1	24	47.8	17.8	20.7	19	31.5	14	38.7	24.4	52.9	12.9	12
21232	18F1	23.1	44.2	17.4	23	19.5	35.2 †	15.6	37.3	21.9 †	46.1	14	12.3
50005	18F1	23.1	44.1	17.7	20.4	15.1	24.4 †	11.6	26.7	25.3	55.2	12.6	13.9
50014	18F1	22.9	44.2	17.7	20.6	22.7 †	34.6	18.7 †	40.5	27	54	15.2	14.4
50018	18F1	20.1	46.1	17	19.7	18.3	30.2	12.6	33.7	26.4	49.2	13.4	11.2
50020	18F1	15.9 †	42.1	12.1 ††	14.4 †	19.7	37.1 †	13.7	41.2	28	64	15	18
50024	18F1	16.3 †	39.4	14.8 †	16	17.5	30.2	14.1	36	29.2	55.4	24.2 ††	17
50037	18F1	20.2	46	17.1	19.8	18.2	30.1	12.6	33.7	26.4	49.4	13.4	11.3
50042	18F1	6.6 ††	16 ††	4.9 ††	5.6 ††	4 ††	11 †	2.2 ††	17 ††	4.3 ††	17 ††	0.03 ††	0.35 ††
52283	18F1	21.7	36.7	17.7	24.9	18.3	26.7	14.3	32.1	26.4	44.8	13.5	10.6
52491	18F1									30 †	66	19 ††	15
52565	18F1									25.6	0.201 ††	7.7 ††	26.3 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable Zn — Mehlich3 (18F1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
22	18F1	1.58	12.2	0.501	0.695	0.346 †	0.99	1.19	2.4	0.904	2.44	0.761	2.17
8888	18F1	1.6	12.4	0.632	1.02		1.2	1.24	2.63	0.933	2.41	0.921	2.52
10156	18F1	2.46 ††	16.6 ††	1.34 ††	1.2	0.945 ††	1.86	1.96 ††	3.72	0.325 ††	1.39 ††	1.05 †	2.27
21100	18F1	2.02 ††	13.3	0.736 †	1.09	0.0938	1.18	1.46	2.92	1.15 †	2.85 †	0.865	2.46
21178	18F1	1.51	12.6	0.5	0.79	0.12	1	1.25	2.73	0.85	2.4	0.64	2.35
21229	18F1	1.55	13.6	0.382	1.89 ††	0.0354	1.27	1.28	2.96	0.891	2.49	0.759	2.27
21232	18F1	1.69	12.9	0.679	0.994	0.18	1.54	1.52	3.23	1.1 †	2.35	0.75	2.37
50005	18F1	1.49	11.3	0.544	0.779	0.17	1.32	1.34	3.13	1.01 †	5.23 ††	0.515	3.72 ††
50014	18F1	1.63	13.7	0.553	0.934	0.087	1.41	1.43	2.94	0.92	2.46	0.64	2.51
50018	18F1	1.4	13.1	0.521	0.771	0.0454	1.04	1.2	2.57	0.933	2.98 ††	0.722	2.56
50020	18F1	1.11 ††	14.1				1.47	1.4	3.73		3.13 ††		3 ††
50024	18F1	1.21 †	11	0.41	0.65	0.042	1	1.19	2.48	0.84 †	2.29	0.68	2.15
50037	18F1	1.41	13.1	0.52	0.77	0.0453	1.05	1.21	2.58	0.932	2.96 ††	0.724	2.54
50042	18F1	0.5 ††	6.2 ††	0.37 †	0.2 ††	0.22	0.47	0.2 ††	1.6 ††	0.31 ††	1.1 ††	0.01 ††	0.88 ††
52283	18F1	1.55	11.5	0.58	1.03	0.052	1.42	1.52	2.84	0.936	2.35	0.73	2.33
52384	18F1									1.4 ††	2.6	1.3 ††	2.8
52491	18F1									0.902	2.3	0.671	2.4
52565	18F1					0.891 ††	1.13	1.58	4.13 ††	0.775 †	2.21	1.06 †	1.94

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Extractable K — Bicarbonate (18A1) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
20204	18A1	449	659	419	408	117 ††	112 †	263 ††	122 ††	97.8 ††	341 ††	364	355 ††
21088	18A1	312 †	391	271 †	262 ††	10.3	74.2	411	201	42.5	219	378	246
21100	18A1	508	674	456	471	25.7 ††	74.8	458	313 ††	43.8	225	381	245
21138	18A1					11.3	65	408	208	47.7	219	372	247
21178	18A1	460	650	400	410	10	70	375	210	42	205	380	267 ††
21193	18A1	355	505	323	318 †	1 †	116 †	732 ††	534 ††	56.1	335 ††	419 †	317 ††
21229	18A1					10.2	68	422	221	46.3	236	418 †	286 ††
21232	18A1	400	509	367	380	8.14	79	390	288 ††	48.3	263	437 ††	265 ††
50011	18A1	448	576	431	406	14.5	55	380	200	43.5	235	367	243
50017	18A1	478	519	413	403	11	66.8	392	205	44.9	224	387	245
50020	18A1	589 †	705	584 †	573 ††	481 ††	762 †	1470 ††	1220 ††	8 ††	64 ††	15 ††	22 ††
50024	18A1	458	626	446	424	4.37	67	425	206	59.4	275 †	399	280 ††
50025	18A1									55.1	242	478 ††	249
50027	18A1	418	550	414	385	8	62	384	235 †	51	240	368	237 †
52437	18A1	311 †	366	360	371					16.4 ††	60.4 ††	70.2 ††	62.5 ††
52494	18A1	354	554	341	314 †	3.29	61.1	338	180 †	51	225	308 ††	246

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Organic Matter (6G1) %											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
21088	6G1	4.06	5.25	1.97	1.37	0.203	1.44	1.48	4.33	5.44	24.4	2.54	2.76
21115	6G1	9.16	10.2	4.15 ††	4.4 ††	0.3	2.61 ††	3.49	6.22	7.19	34.5	4.17	4.21 ††
21182	6G1	4.1	5.3	1.8	1.3					5.04	24.8	1.23	2.57
50005	6G1	4.68	6.51	2.1	1.42	0.242	1.47	1.61	4.82	6.36	29.8	1.42	3.26 †
50020	6G1	9.9	10.5	4.6 ††	5.5 ††		3 ††	5.6 ††	6.5		3	5.6	6.5 ††
50029	6G1	5.78	8.17	2.58	2.2 †	0.185	1.26	2.17	4.91	5.56	34.2	2.63	2.67
50030	6G1					0.27	2.56 ††	3.73 †	6.29				
50036	6G1	4.3	7.1	2.2	1.5		1.6	1.7	4.4	5.5	23.6	1.4	2.8
52494	6G1	6.29	8.67	2.56	2.13 †	0.26	1.47	2.25	5.02	6.31	32.9	2.24	3.12
52526	6G1						1.3	1.4	4	4.6	24	1.1	2.7

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Aluminium (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	66	44.4	40.5	53.3	1340	21200	34400	25100	26600	56300	49300	18800
21148	17B1					792	6460	15400	9660				
21229	17B1	48300	38600	32700	46900	1490	14000	30700	18000	19600	55800	45300	13300
21230	17B2	66000	39800	36300	53300	1290	18500	33800	24300	23200	55600	48500	17900
50005	17B2	50000	42100	34200	43200	1470	9030	35400	22500	21500	60900	48400	15100
50017	17B2	47300	31700	28600	38900	1550	8640	32300	25000	27000	56700	53500	20000
50020	17B1	35400	43100	17800	31700	781	5420	11800	7420	9930	68800	23700	6180
50036	17B1	14200		7530	13200	670	4070	8000	5640	8070	47900	19900	5310
50044	17B1	28000	30000	16000	26000					7500	43000	23000	5400
52491	17B1					1430	27400 ††	46300	35700	27200	56300	53800	21800
52526	17B1	24200	24500	12400	22200	1860	5320	10200	7460				
52527	17B1	23300	24000	12100	22500	920	6060	11200	8800	7560	50000	22300	5430
52565	17B2					3260 ††	12700	24700	18600	16000	43200	37500	12000

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Calcium (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	7.67 ††	3.3 ††	1.85 ††	8.59 †	94.4 ††	1150	1930 ††	1190	1380	3320	3660	1050
21148	17B1					34.6	886	1580	945				
21229	17B1	6670	2960	1600	8130	26.9	945	1580	1010	1270	3180	3260	825
21230	17B2	6020	2510	1370	6870	15.6	797	1350	817	1000	2650	3030	766
50005	17B2	8000	3290	1670	9310	37.9	969	1530	1040	1170	2680	2890	903
50017	17B2	6220	2900	1430	7100	22.9	969	1640	1000	1300	3460	3500	919
50019	17B1					47.3	1060	1580	1150				
50020	17B1	7170	3200	1570	8010	34	840	1300 ††	809	727 ††	3320	2970	802
50027	17B2	5730	2990	1470	6160	36	880	1230 ††	800	1090	2880	2790	826
50036	17B1	6640	2790	1580	7580		1040	1640	1020	1310	3410	3640	1070 ††
50044	17B1	7700	3300	1800	8700					1300	3100	3200	840
52491	17B1					27	891	1470	951	1560	4000	4200	1140 ††
52526	17B1	7400	3120	1660	8420								
52527	17B1	8500	3460	1680	8380		982	1590	1020	1340	3460	3390	900
52565	17B2					384 ††	897	1490	912	1190	2850	3360	848

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Chromium (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	0.0723 †	0.020 ††	0.038 ††	0.050	6.78	53.5	72.4	57.7	66.5	15.7	40.9	71.7
21148	17B1					5.69	30.2	34.5	15.3				
21229	17B1	56.2	16.6	30.3	44.4	10.1 †	39.8	58.1	36.7	67.4	14.2	37.5	75.5
21230	17B2	71	19.6	36.5	51.1	8.19	44.7	61	48.8	85.9	21.1 ††	50.2	94
50005	17B2	48.6	15.3	20	32.1	5.85	24.8	19.4	21.6	42.2	13.7	21.2	32.6 ††
50019	17B1					8.35	39.2	50.8	40				
50020	17B1					5.84	33.2	40	24.5	62	17.5	31	77
50036	17B1	32	13	17	20	6	31	39	24	55.2	16.6	29.4	71.6
50044	17B1	46	15	24	35					43	12	28	68
52491	17B1					8.2	39	45	49	86	18	50	103 ††
52526	17B1	48	16	24	34	4	29	44	24	46.7	13.5	25.9	63.1
52526	17B1									50	15	27	65
52527	17B1	43	14	20	30	6.27	29.8	45.1	24.8	52.9	14.5	29.2	62.5
52565	17B2					110 ††	43.2	57.2	43.9	67.2	14.6	36.5	78

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Copper (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	17B2	0.0369 ††	0.022 ††	0.020 ††	0.029 ††	0.609 †	4.6	15.6	6.59	17.1	16.7	22.1	8.41
21148	17B1						3.57	12.7	4.95				
21229	17B1	27.7	16.8	14.7	23.2	0.328	4.07	15.7	6.62	12.9	14.7	17.8	6.47
21230	17B2	26.2	14.1	12.4	18.2	0.23	3.81	15.4	6.03	13.5	16.1	19.4	6.24
50005	17B2	26.3	15.5	14.1	18.9	0.292	3.97	17.2	7.47	15	15.9	20.5	7.82
50017	17B2	24.6	17.8	14.8	20.8	0.314	3.44	15.7	5.09	16.8	17.5	21.9	7.52
50020	17B1	24.6	14.1	10.2	15.8		2.74	9.32	4.02	11.9	12.7	16.3	6.4
50027	17B2	20.4	13.2	10.6	13.7	0.2	3.5	12.6	4	14	14.5	17.2	6.6
50036	17B1	19	11	11	12	0.2	4.1	11.4	5	11.5	13.9	16.5	5.4
50044	17B1	20	11	10	15					9	10	14	5
52491	17B1					1.3 ††	5.6 ††	18	6.5	15	12	19	8.8
52526	17B1	25	13	11	17			12	5	10.8	13.2	16.2	5.2
52526	17B1									11	13	16	4.48
52527	17B1	24	13	10	17	0.19	3.46	13.1	5.52	11.5	14	18.1	5.37
52565	17B2					3.87 ††	5.94 ††	17.1	7.46	16.9	19.6	21.2	8.99

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Iron (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	17B2	31.4 †	16.4 ††	13.9	19.8 †	113	7750	18700	24600	30700	25400	26100	13900
21148	17B1					88	6240	14900	22500				
21229	17B1	45600	26300	21000	31600	170	7620	20700	28200	31000	26000	26500	13300
21230	17B2	42500	22700	21900	27600	162	8630	21500	29200	36100 †	33900	31600	16500
50005	17B2	47300	25700	22700	31500	131	6700	23700	32200	34300	31700	31200	16300
50017	17B2	47000	29400	20900	31700	161	7370	19800	24500	35400	31600	30100	15600
50020	17B1	46100	29200	16900	26300	98.3	7020	15900	27200	37800 ††	38900	29500	16700
50036	17B1	24100	16100	8440	11000	100	6930	12700	25900	30700	32100	22000	15800
50044	17B1	33000	20000	13000	21000					20000 ††	22000	19000	12000
52491	17B1					198	26500 †	45800 ††	35500	32000	28600	28200	16100
52526	17B1	38600	22600	14400	22500	80	6550	12100	23400				
52527	17B1	36600	24200	13600	21800	110	6400	15800	28100	31600	31200	23700	14700
52565	17B2					966 ††	6890	20100	26800	30300	27200	26800	14200

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Potassium (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	17B2	5.45	1.93 ††	4.64	6.27					745 ††	928 †	6070	1240
21148	17B1					21.8	131	2500	788				
21229	17B1	3850	1160	3870	5960	12.2	177	3710	1760	175	427	5020	624
21230	17B2	5050	1360	3910	6070	7.08	164	3800	3190	241	590	5870	815
50005	17B2	4630	1540	4220	5880	11.9	147	4380	2350	243	1930 ††	157	188
50017	17B2	5380	1820	4160	6390	2.32	144	3970	3180	283	661	7120	891
50020	17B1	2470	912	1970	3650		135	2240	663	77	268	2780	374
50027	17B2	3770	1260	3200	4370	14	228 ††	3570	3470	275	535	5820	912
50036	17B1	1670	750	1370	2480		130	1560	550	130	460	2890	650
50044	17B1	3000	970	2400	4300					120	350	3100	400
52491	17B1					23	205	3910	3880	289	621	7880	1010
52526	17B1	2210	760	1790	3190		120	1950	640				
52527	17B1	3390	930	2270	4010		152	2100	864	150	490	3470	510
52565	17B2					72 ††	207	3170	2170	324	579	3480	753

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Magnesium (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	17B2	5.17 †	1.1 ††	3.64 ††	6.04 †	9.15	249	3080	1390	696	813	5170	267
21148	17B1					3.3	177	1210	636				
21229	17B1	4750	1030	3610	6130	7.29	223	3010	1040	560	673	4990	180
21230	17B2	4550	995	3250	5520	4.66	210	2770	1210	601	876	5050	196
50005	17B2	4950	915	3540	6160	5.38	210	3350	1130	606	790	5900	221
50017	17B2	4360	1040	2930	4970	6.26	141	3100	1390	756	921	5520	238
50019	17B1					9.25	224	2550	1070				
50020	17B1	4060	801	2570	5000		156	1920	524		500	4540	147
50027	17B2	3880	1230	3040	4340	7	252	2510	1340	757	819	4490	249
50036	17B1	3020	640	1940	3630		180	1820	530	380	590	4310	370
50044	17B1	4400	840	2700	5300					430	640	4300	140
52491	17B1					9.6	232	2840	1380	834	1010	6570	290
52526	17B1	3890	740	2440	4870		180	2030	600				
52527	17B1	4700	800	2480	4640		180	2230	670	440	640	4900	160
52565	17B2					28.9 ††	217	0.289 ††	0.118	633	817	5140	216

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Manganese (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	1.22 †	3.01 ††	0.767 ††	1.7 ††	0.897	43.1 †	820	52.7	79.9	237	538	64
21148	17B1					0.42	38	798	49				
21229	17B1	1220	3210	816	1760	1.63	36.8	923	45.7	69.3	231	555	54.7
21230	17B2	1180	2930	733	1730	1.04	36.8	776	45	130	312 ††	603	80.5
50005	17B2	985	3860 ††	660	2040	0.535	39.2	797	52.6	69.3	240	515	63.9
50017	17B2	1200	3090	738	1700	1.89	36.6	763	50.4	139	272 †	583	76.7
50020	17B1	1340	3400	812	1890		30.3 ††	1010 ††	32.5 ††	46	220	467	48
50027	17B2	1060	3450	660	1560	1.5	41.7	724	54.8	161 ††	246	484	79.1
50036	17B1	1050	2700	626	1430	0.4	33.5	831	39.1	60	243	557	57.3
50044	17B1	1100	3100	670	1500					45	200 †	440 †	48
52491	17B1					1.8	44 ††	924 †	60	92	261	572	70
52526	17B1	1260	3090	714	1600	0.3	38.6	869	38.8	47.4	227	528	49.6
52526	17B1									53	235	528	52
52527	17B1	1200	3010	655	1590	0.531	35.6	801	35.9	52.5	233	543	47.2
52565	17B2					9.3 ††	38.7	3.56 ††	50.2	93.1	225	497	60.9

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Sodium (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	0.472	0.641	0.724 ††	0.637 ††	71.1 ††	113 †	1080 ††	255	149	267	795	104
21148	17B1					16.8	41.2	499	136				
21229	17B1	125	285	513	469	5.39	35.3	446	213	93	150	704	116
21230	17B2	168	439	469	444	12	46.7	425	168	125	403	922	94
50005	17B2	168	583	567	510	6.94	43.9	583	198	118	1090 ††	1400 ††	78.1
50017	17B2	167	1780 ††	658 ††	652	4.37	54.3	581	228	118	396	947	68.2
50020	17B1			379	309			329				587	
50036	17B1	50	90	410	350			440	120	90	120	790	60
50044	17B1	83	140	440	380					89	100	620	
52491	17B1					35	85 †	472	249	135	308	937	81
52526	17B1	15.7	80	400	300			360	90				
52527	17B1	180	240	420	450			391	109	100	110	700	
52565	17B2					20.3	38.3	360	127	106	199	675	65.9

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Lead (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	0.0112 ††	0.018 ††	0.014 ††	0.019					7.99 †	7.01	6.63 ††	7.83 †
21148	17B1						2.8	9.8	15.6				
21229	17B1	11.4	18.8	14.8	19.8	0.503	3.63 ††	12.6	20.7	13.6	10.7	10	11.2
21230	17B2	0.0239 ††	0.099 ††	0.039 ††	0.016	0.732	2.87	9.58	15	12.5	11.7	10	12.9
50005	17B2	9.53	15.9	12.4	15.4	0.394	3.08 †	11.3	17.5	13.5	10.2	10.4	13.1
50020	17B1		12.7	9.43 †	11.4			7.48	13.3	8.03 †			8.17 †
50036	17B1	9	16	12	15	0.3	2.8	10.5	16	13.7	13.9	10.5	11.5
50044	17B1	11	19	13	19					11	11	10	11
52526	17B1	11	18	13	18	0.2	3.1 †	10.9	17.3	12.1	12.3	9.8	10.4
52526	17B1									12	13	10	11
52527	17B1	10	17	12	17	0.321	2.8	11.1	17.9	12.8	12.6	10.2	10.9
52565	17B2									4.73 ††	1.25 ††	0.873 ††	6.54 †

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Sulphur (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	**ASS 1803-2**	**ASS 1803-3**	**ASS 1803-4**	**ASS 1806-1**	**ASS 1806-2**	**ASS 1806-3**	**ASS 1806-4**	**ASS 1809-1**	**ASS 1809-2**	**ASS 1809-3**	**ASS 1809-4**
10156	17B2	0.521 ††	0.721 ††	0.445 ††	0.399 ††	817 ††	803 †	830 ††	883 ††				
21229	17B1	221	463	111	122	37.4	70.5	93.5	286	287	1440	94.3	96.7
21230	17B2	230	444	104	123	10.4 ††	39.8 †	72.7	226	261	1410	123	98.5
50005	17B2	190 †	485	104	98.5	32.4	55.6	95.9	274	242	1410	113	90.3
50017	17B2	226	436	118	125	40	70.5	113	296	295	1480	133	108
50020	17B1	202	461	90.2	89.1	36.4	62.3	63.8	245	229	1330	59	89
50036	17B1						70	80	24 ††				
50044	17B1	250	510	120	140					290	1500	73	110
52491	17B1									394	1940 ††	162	145
52526	17B1	230	430	100	100		60	80	260				
52565	17B2									1660 ††	8400 ††	727 ††	775 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2018: Total Zinc (17B1 + 17B2) mg/kg											
		March 2018 (Round 3)				*June 2018 (Round 6)*				*September 2018 (Round 9)*			
		ASS 1803-1	ASS 1803-2	ASS 1803-3	ASS 1803-4	ASS 1806-1	ASS 1806-2	ASS 1806-3	ASS 1806-4	ASS 1809-1	ASS 1809-2	ASS 1809-3	ASS 1809-4
10156	17B2	0.0836 ††	0.114 ††	0.021	0.0648 †	0.804	4.9	35.5	21.4	13.5	35.6	40.4	6.77
21148	17B1					1.6	4.71	21.9	19.6				
21229	17B1	58.9	96.8	28.5	47.4	0.27	3.8	31	18.2	11.9	36.9	42.2	5.04
21230	17B2	67.8	96.9	28.1	51.3	0.864	3.54	28.3	17.3	15.1	41.1	41.9	6.77
50005	17B2	66.5	96.1	31.7	49.1	1.38	3.6	33.5	24.4	14.4	38.4	43.3	8.19
50017	17B2	68.3	97	24.7	52.1	0.104	4.63	38	22.8	18.2	41.4	44.6	7.47
50020	17B1	45.4	78.5	14.1	32.4			12.7	9.73		25	22	
50027	17B2	56.6	87.2	25.2	40	0.2	4.4	27.8	18.9	17	36.4	38.8	7.5
50036	17B1	32	59	11	23		2.3	14.4	12.6	7	31	26	6
50044	17B1	49	71	17	39					7	29	31	
52491	17B1					1.5	7.2 ††	38	23	16	42	45	7
52526	17B1	51	73	16	37		2.6	15.5	12.6	6.4	31	26.4	4.1
52526	17B1									4.4	30.6	26	1.95 ††
52527	17B1	46	69	14	34		2.57	20.4	15.4	6.66	34	31.4	4.62
52565	17B2					3.76 ††	7.13 ††	30	19	14.6	42.2	38.3	8.52

[i] Unless otherwise indicated, soil method codes are as defined by Rayment, G.E. and Lyons, D.J. (2011). *Soil Chemical Methods - Australasia*. CSIRO Publishing, Collingwood, Victoria, Australia.