Australasian Soil and Plant Analysis Council Inc.

ASPAC Soil Proficiency Testing Program Report

2009-10

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Foreword

This is the latest of ASPAC's many inter-laboratory proficiency program reports (ILPP) for soils since 1993. It is the fifth annual program report since 2004-05 (see Rayment *et al*. 2007)[1]for common soil chemical tests that incorporate three "rounds" each of four carefully prepared 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, the Pacific Region and in parts of South-east Asia.

The Service Provider for ASPAC is now called 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, these 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 Executive appreciates the efforts and commitments made by participating laboratories and by those already mentioned. By participating, laboratories share a commitment to and responsibility for measurement quality.

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

Dr Roger Hill
ASPAC LPC Convenor

[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.

Acknowledgements

LandCare Research (New Zealand) is thanked for sample preparation and chemical homogeneity testing undertaken for Global Proficiency Ltd (GPL). Hill Laboratories (New Zealand) also assisted with chemical homogeneity testing. In addition, operational staff of GPL are thanked for their inputs.

Memberships

Membership of ASPAC Laboratory Proficiency Committee (LPC) 2009-10

Names	*Locations*	*Current Emails*
R.J. Hill (Convenor)	Hamilton, NZ	roger@hill-labs.co.nz
G.E. Rayment	Queensland	raymeng@optusnet.com.au
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Key Service Provider Details[A]

Name, Street and Postal Address	*Key Personnel & Current Emails.*
Global Proficiency Ltd. Ruakura Research Campus, Hamilton 3214, NZ; PO Box 20474, Hamilton 3241, NZ P. +64 7 850 4483	*Business Manager:* Gordana.Aleksic@global-proficiency.com *Technical / Operational:* Dr Julie Marsh <jules.marsh@global-proficiency.com> Nicky Rusk <Nicky.Rusk@global-proficiency.com>

[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 recognised by NATA (National Association of Testing Authorities of Australia) as a proficiency provider.

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YOUR NOTES

1. Introduction

This not-for-profit, annual ASPAC Soil Proficiency Testing Program Report for 2009-10 consolidates (for ASPAC members and the public record) 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.

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 included in this annual program were documented at the time on ASPAC's public web site.

2. Program Details

2.1 Responsibilities

What is now GPL-see page iv -under its "SoilChek" arrangements, was contracted by ASPAC as the soil ILPP provider for 2009-10. 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 statistical 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 a unique, confidential laboratory number, subsequently used to identify the origin of each result presented in program reports and lists of results. Typically, this identification number carries forward from one annual program to the next.

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

2.2 Soil program participation

Over 50 laboratories expressed interest in participating in the ASPAC soil ILPP in 2009-10 while those that reported results varied by "round" and soil test (see Table 1). Contact details for the 51 laboratories that submitted results for at least one soil test are provided in Appendix 1. There were 33 from Australia (NSW=12; QLD=8; VIC=5; WA=3; SA=2; TAS=2; ACT=1), 6 from New Zealand, 3 each from Fiji and Vietnam, 2 each from The Philippines and Papua New Guinea, and 1 (one) each from Samoa and Noumea.

Most results, averaged across the three "rounds", were submitted for method 4A1 (pH, 1:5 soil-water), with method 3A1 (Electrical conductivity, 1:5 soil-water) the next most common. Their averages across three "rounds"

Table 1. Test methods, corresponding method codes and the arithmetic average number of results per round submitted by participating laboratories in the ASPAC 2009-10 soil ILPP

2009-10 Soil Tests	Method Codes†	Number of participants		
		Nov 09	Mar 10	May 10
Electrical conductivity 1:5 soil-water	3A1	38	39	38
Soil pH, 1:5 soil-water	4A1	44	41	43
Soil pH, 1:5 0.01 M $CaCl_2$ — direct	4B1	17	10	12
Soil pH, 1:5 0.01 M $CaCl_2$ — indirect	4B2	24	26	26
Water soluble Cl — potentiometric	5A1	21	16	18
Water soluble Cl — autocolour	5A2	8	8	8
Organic Carbon —W&B	6A1	27	29	32
Total Organic C — Heanes	6B1	4	6	4
Total Organic C — HF Induction, Vol & IR	6B2 + 6B3	14	17	13
Total N — Kjeldahl, steam distillation	7A1	26	25	24
Total N — Kjeldahl, autocolour	7A2	2	2	4
Total N – Dumas	7A5	12	15	13
Water Soluble Nitrate N — autocolour	7B1	15	14	15
KCl Extractable Nitrate N — autocolour	7C2	18	20	19
KCl Ext. Ammonium N — autocolour	7C2	22	25	22
Total P – all methods	9A1 and others	22	20	16
Colwell Extractable P — manual, autocolour	9B1 + 9B2	24	24	25
Olsen Extractable P — manual, autocolour	9C1 + 9C2	25	25	25
Bray-1 Extractable P — manual, autocolour	9E1 + 9E2	10	11	14
Acid Extractable P — manual, autocolour	9G1 + 9G2	2	3	7
Phosphorus buffer index (with Colwell P)	9I2a + 9I2b + 9I2c[i]	16	18	16
Phosphorus buffer index (with Olsen P)	9I3a + 9I3b + 9I3c[ii]	2	1	2
Phosphate Extractable S	10B3	8	7	7
KCl 40 Extractable S	10D1	14	14	13
DTPA Extractable Fe	12A1	34	29	30
DTPA Extractable Cu	12A1	33	28	30
DTPA Extractable Mn	12A1	33	28	29
DTPA Extractable Zn	12A1	33	28	30
Hot $CaCl_2$ Extractable B — manual colour	12C1	2	1	3
Hot $CaCl_2$ Extractable B — ICPAES	12C2	19	18	18
Exchangeable Ca — 1M NH_4Cl extract	15A1	17	16	19
Exchangeable Mg — 1M NH_4Cl extract	15A1	17	16	19
Exchangeable Na — 1M NH_4Cl extract	15A1	17	16	19
Exchangeable K — 1M NH_4Cl extract	15A1	18	16	19
Exchangeable Ca — 1M NH_4OAc extract	15D3	24	20	22
Exchangeable Mg — 1M NH_4OAc extract	15D3	24	20	22
Exchangeable Na — 1M NH_4OAc extract	15D3	23	19	21
Exchangeable K — 1M NH_4OAc extract	15D3	25	20	23

2009-10 Soil Tests	Method Codes†	Number of participants		
		Nov 09	Mar 10	May 10
Exchangeable Al — 1M KCl extract	15G1	14	12	14
Mehlich 3 Extractable Al	18F1	8	6	7
Mehlich 3 Extractable B	18F1	7	7	7
Mehlich 3 Extractable Ca	18F1	7	7	7
Mehlich 3 Extractable Cu	18F1	8	7	7
Mehlich 3 Extractable Fe	18F1	7	7	7
Mehlich 3 Extractable S	18F1	6	6	6
Mehlich 3 Extractable Mg	18F1	7	7	7
Mehlich 3 Extractable Mn	18F1	8	8	7
Mehlich 3 Extractable P – Colour finish	18F2	7	7	7
Mehlich 3 Extractable P– ICP finish	18F1	1	1	1
Mehlich 3 Extractable K	18F1	7	7	7
Mehlich 3 Extractable Na	18F1	6	7	7
Mehlich 3 Extractable Zn	18F1	8	7	7

† These soil method codes are mostly as defined by Rayment, G.E. and Higginson, F.R. (1992)[3], which is referenced earlier in this report. That text, however, does not cover all tests and/or all soil method codes listed in Table 1. See Rayment and Lyons (2011)[4] for additional and new details on methods, method codes and references. The authors believe there is mix up of codes for 7A1 and 7A2, as dominant use of steam distillation as the analytical finish is unlikely.

were 49 and 38, respectively. The next four most commonly performed soil tests across all "rounds" were, in decreasing order, DTPA Extractable Fe, Cu, Zn, and Mn, followed by Organic Carbon —W&B. The six least commonly performed tests, commencing with the least performed, were Mehlich 3 Extractable P – Colour finish, Hot $CaCl_2$ Extractable B — manual colour, P buffer index (with Olsen P), Total N (Kjeldahl-autocolour), Acid Extractable P and Total Organic C – Heanes. For these, the average number of participating laboratories across the three "rounds" ranged from 1 to 4. The median participation rate for all of the listed tests was 15.

2.3 Tests and methods

The three proficiency "rounds" for soils – each comprised of four samples – were offered in November 2009, March 2010 and May 2010. Participants were invited to analyse each sample by the methods listed and/or coded in Table 1. Participants were not required to submit results for all soil tests, 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 mainly in statistical summaries in Section 3.

Note that participating laboratories were asked by ASPAC to report all tests on an air dry (40ºC) soil-weight basis, which at times differed from the reporting guidelines published by Rayment and Higginson (1992). Moreover, routine soil fertility tests in Australia are mostly reported on an air-dry (40ºC) soil-weight basis.

[3] Rayment, G.E. and Higginson, F.R. (1992). Australian Laboratory Handbook of Soil and Water Chemical Methods. Reed International Books Australia P/L, trading as Inkata Press, Port Melbourne. 330 pp.

[4] Rayment, G.E. and Lyons, D.J. (2011). "Soil Chemical Methods – Australasia". 495+20 pp. CSIRO Publishing, Melbourne.

2.4 Sample preparation and identification

Potential samples were assessed for homogeneity by laboratories accredited to ISO 17025. Specifically, 10 containers of each sample were selected at random and batched according to the principles described by Thompson and Wood (1993)[5].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. Variations between samples were such that all sample batches were deemed to be homogeneous and therefore suitable for use in proficiency testing. Examples of the homogeneity data and statistical assessments on the data are summarised 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[6].

Ultimately, the samples used in the three "rounds" of the 2009-10 program were distributed and coded as follows: November 2009 (Round 209) — ASS 111-114; March 2010 (Round 409) — ASS 31-34; and May 2010 (Round 609) — ASS 51-54. The association between sample code and origin of the various soils are provided in Table 2.

Table 2. Sample identification and the origin of the samples included in the ASPAC 2009-10 soil ILPP

Sample ID	*Sample origin*	*Sample ID*	*Sample origin*
ASS 111	Belmond, North America	ASS 33	Alderdale, North America
ASS 112	Molong, NSW	ASS 34	Barratta Creek, QLD
ASS 113	Tamworth, NSW	ASS 51	TAS
ASS 114	TAS	ASS 52	Maricopa, North America
ASS 31	Ballarat, VIC	ASS 53	Ballarat, VIC
ASS 32	Bathurst, NSW	ASS 54	Werribee, VIC

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 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 WEPAL interlaboratory proficiency programs of Wageningen University. This procedure[7,8,9,10] is suited to datasets of as few as six

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

6 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*. **27**, 2107-2117.

7 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.

8 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.

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 3. In addition to medians and MADs, other statistical parameters (also described in Table 3) 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 Higginson (1992). 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 expected option.

Interim "round" reports, summarising 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, a Newsletter from the Service Provider went to all participating laboratories. Its main purpose was to assist in the interpretation of interim reports. Also included in the Newsletter was information about upcoming events and operational administration of the program.

Laboratories that participated in the 2009-10 soil ILPP each received from the Service Provider (on behalf of ASPAC) a laboratory specific, confidential, Annual Certification 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.

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 <u>four</u> 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.

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[9] 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.

[10] 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.)

Table 3. 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 1	The highest of a range of values, based on the initial data set.
Minimum 1	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[11]. In summary, IQR = Q_3-Q_1.
Normalised IQR	This equates to IQR x 0.7413, where the latter is a normalising factor.
Robust % CV[12]	The robust coefficient of variation (Robust % CV) = (100 x normalised 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 "1" 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.

11 SAS Procedure Guide.

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

For any single “round” of four samples, three (3) was set as the maximum number of demerit points for a specific test. 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.

The same procedure applied to “pooled” methods but there was a caveat. When both “unpooled” and “pooled” data for a test such as soil C could be assessed statistically and both subsequently qualified for certification, only the “unpooled” method was recorded on the Certificate rather than both.

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 less than six (6) laboratories 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 provided details of certified laboratories by test on its public web site. Those certifications remain / remained valid until superseded by corresponding findings from the next annual soil program. Only financial Corporate Members of ASPAC qualify for ASPAC Certification.

3. Summary Statistics

This section provides summary data and associated statistics (values sometimes rounded only for table formatting purposes) on all tests (plus key “pooled” combinations) for each of the 12 samples used across three soil “rounds” in 2009-10. The tabulations include initial and subsequent values for the iterative “median / MAD” procedure plus other parametric and robust statistics. Table 3 and Appendix 3 have the meaning or derivation of the terms and statistics used in the tabulated summaries.

2009-10: Electrical conductivity 1:5 soil-water (3A1) dS/m

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	38	38	38	38	39	39	39	39	38	38	38	38
Minimum	0.075	0.05	0.015	0.13	0.1	0.06	0.066	0.05	0.1	0.028	0.09	0.081
Maximum	114	75.1	116	194	450	370	860	310	220	320	190	920
Median i	0.121	0.086	0.13	0.196	0.118	0.082	0.162	0.069	0.195	0.273	0.15	0.8
Mean i	3.17	2.12	3.24	5.36	11.7	9.57	22.2	8.02	5.98	8.68	5.14	25
MAD i	0.005	0.006	0.007	0.007	0.004	0.003	0.01	0.002	0.005	0.013	0.006	0.024
IQR i	0.007	0.011	0.02	0.013	0.007	0.007	0.016	0.004	0.009	0.021	0.010	0.037
Robust CV % i	5.5	13	15	6.5	5.7	8.1	9.6	5.4	4.6	7.7	6.9	4.7
Median f	0.121	0.083	0.13	0.194	0.118	0.082	0.161	0.069	0.194	0.273	0.15	0.8
Mean f	0.122	0.086	0.129	0.194	0.118	0.083	0.161	0.069	0.194	0.274	0.151	0.805
MAD f	0.002	0.003	0.002	0.005	0.002	0.003	0.010	0.001	0.006	0.011	0.006	0.022
IQR f	0.004	0.007	0.004	0.008	0.002	0.004	0.014	0.001	0.008	0.017	0.0088	0.0336
Robust CV % f	3.1	8.9	3.4	3.9	1.9	5.4	8.5	2.1	4.3	6.2	5.2	4.1
Outliers	6	7	10	8	8	9	4	12	6	5	4	5
Stragglers	5	2	3	0	7	0	1	5	0	0	0	0

2009-10: Soil pH, 1:5 soil-water (4A1)

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	44	44	44	44	41	41	41	41	43	43	43	43
Minimum	5.7	5.29	4.95	5.11	5.1	5.4	6.21	5.2	5.16	6.75	5.8	6.2
Maximum	7.3	6.75	7.95	6.84	6.8	6.3	8.52	8.46	6.34	9.1	6.72	7.1
Median i	6.88	5.76	7.46	6.36	5.57	5.81	8.11	6.11	5.75	8.63	6.39	6.62
Mean i	6.78	5.78	7.39	6.35	5.6	5.83	7.93	6.16	5.73	8.54	6.36	6.62
MAD i	0.168	0.135	0.17	0.11	0.09	0.11	0.19	0.12	0.08	0.17	0.09	0.08
IQR i	0.261	0.202	0.251	0.178	0.137	0.156	0.471	0.189	0.126	0.252	0.119	0.119
Robust CV % i	3.8	3.5	3.4	2.8	2.5	2.7	5.8	3.1	2.2	2.9	1.9	1.8
Median f	6.9	5.76	7.48	6.36	5.57	5.8	8.16	6.09	5.75	8.69	6.4	6.65
Mean f	6.87	5.75	7.45	6.37	5.55	5.8	8.16	6.06	5.75	8.68	6.39	6.65
MAD f	0.145	0.13	0.17	0.098	0.07	0.1	0.14	0.09	0.07	0.11	0.1	0.08
IQR f	0.224	0.185	0.252	0.147	0.089	0.145	0.196	0.133	0.111	0.148	0.115	0.115
Robust CV % f	3.2	3.2	3.4	2.3	1.6	2.5	2.4	2.2	1.9	1.7	1.8	1.7
Outliers	3	1	1	3	7	3	7	4	4	4	3	5
Stragglers	1	0	0	1	3	1	2	4	0	2	0	0

2009-10: Soil pH, 1:5 0.01 M $CaCl_2$ — direct (4B1)

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	10	10	10	10	12	12	12	12
Minimum	5.68	5	6.33	5.3	4.9	4.84	6.21	5.1	4.69	5.89	4.89	5.52
Maximum	6.87	5.4	7.14	6.15	5.04	5.03	7.54	5.37	5.1	7.94	5.83	6.2
Median i	6.3	5.07	6.73	5.473	5	4.96	7.24	5.16	5.00	7.50	5.68	5.92
Mean i	6.24	5.1	6.72	5.54	5	4.95	7.15	5.19	4.98	7.34	5.62	5.9
MAD i	0.11	0.05	0.11	0.073	0.015	0.04	0.18	0.055	0.065	0.39	0.085	0.065
IQR i	0.172	0.078	0.193	0.178	0.028	0.065	0.319	0.126	0.1	0.562	0.128	0.117
Robust CV % i	2.7	1.5	2.9	3.3	0.56	1.3	4.4	2.4	2	7.5	2.3	2
Median f	6.3	5.07	6.73	5.42	5	4.96	7.27	5.16	5.01	7.51	5.7	5.92
Mean f	6.27	5.08	6.72	5.43	5.01	4.95	7.25	5.19	5.01	7.34	5.69	5.91
MAD f	0.085	0.045	0.11	0.015	0.01	0.04	0.13	0.055	0.05	0.39	0.07	0.045
IQR f	0.125	0.072	0.193	0.058	0.030	0.065	0.226	0.126	0.096	0.562	0.104	0.083
Robust CV % f	2	1.4	2.9	1.1	0.59	1.3	3.1	2.4	1.9	7.5	1.8	1.4
Outliers	3	1	0	2	1	0	1	0	1	0	1	1
Stragglers	0	0	0	3	0	0	0	0	0	0	0	1

2009-10: Soil pH, 1:5 0.01 M $CaCl_2$ — indirect (4B2)

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	24	24	24	24	26	26	26	26	26	26	26	26
Minimum	5.17	4.81	5.97	5.22	4.88	4.76	5.15	4.97	4.67	6.07	5	5.58
Maximum	6.8	5.49	6.91	5.7	5.55	5.46	7.91	7.78	5.2	8.28	5.92	6.2
Median i	6.32	5.06	6.72	5.5	5.05	5.01	7.53	5.21	5	7.98	5.68	5.95
Mean i	6.18	5.09	6.67	5.5	5.08	5.03	7.36	5.34	4.99	7.78	5.63	5.94
MAD i	0.095	0.055	0.16	0.08	0.05	0.02	0.18	0.04	0.085	0.255	0.065	0.07
IQR i	0.285	0.084	0.274	0.128	0.080	0.035	0.278	0.094	0.132	0.373	0.083	0.106
Robust CV % i	4.5	1.7	4.1	2.3	1.6	0.7	3.7	1.8	2.6	4.7	1.5	1.8
Median f	6.34	5.05	6.74	5.5	5.03	5.01	7.59	5.2	5	8	5.69	5.97
Mean f	6.3	5.06	6.7	5.5	5.03	5.01	7.59	5.21	4.99	7.85	5.67	5.98
MAD f	0.065	0.05	0.15	0.08	0.04	0.01	0.135	0.03	0.085	0.23	0.07	0.07
IQR f	0.135	0.052	0.237	0.128	0.052	0.015	0.234	0.054	0.132	0.367	0.079	0.096
Robust CV % f	2.1	1	3.5	2.3	1	0.3	3.1	1	2.6	4.6	1.4	1.6
Outliers	5	5	1	0	2	9	3	6	0	1	2	3
Stragglers	1	0	0	0	1	3	1	0	0	0	0	0

2009-10: Water soluble Cl — potentiometric (5A1) mg Cl/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	21	21	20	21	16	16	16	16	18	19	18	19
Minimum	0.66	1.4	4.97	15	60.3	0.97	12	5.7	17	14	10	328
Maximum	80	50	40	190	300	160	120	180	260	53.4	160	1260
Median i	4.9	10	12	36	91	7.15	22.6	12	67.2	31	29.9	901
Mean i	9.8	12.1	14.3	42.3	105	19.6	33.9	25.2	75.4	32.9	37.5	908
MAD i	2.7	3	2.32	8	13	3.3	7.75	4.41	7.5	8.5	6.7	79
IQR i	5.43	5.5	4.8	11.3	26.9	6.46	16.1	7.99	12.6	13	11.5	124
Robust CV % i	110	55	40	31	30	90	71	67	19	42	39	14
Median f	4.7	9.7	11.6	35.9	89.6	6.12	21	12	67.3	31	29.6	901
Mean f	5.51	9.27	12.1	35	88.8	6.88	23.6	12.2	67.5	32.9	28.6	906
MAD f	2.4	2.9	2.27	6.2	9.5	2.12	5	3.26	7.25	8.5	5.9	46
IQR f	4.11	5.63	3.32	9.67	15.7	4.54	9.9	5.49	11.1	13	8.4	84.5
Robust CV % f	87	58	29	27	18	74	47	46	17	42	28	9.4
Outliers	2	2	2	1	1	2	2	2	2	0	1	2
Stragglers	0	0	0	0	1	1	1	0	0	0	1	1

2009-10: Water soluble Cl — autocolour (5A2) mg/kg air dry

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	8	8	8	8	8	8	8	8
Minimum	1.8	5.46	1.46	30	67	2.03	20.1	9.35	58	12.1	29	22.7
Maximum	17.7	38.8	44.4	78	98	27	32	39	89.6	45	41	1010
Median i	7.84	12.24	19	36	87	6.25	24.5	16.4	65.2	31.5	30.0	904
Mean i	9.03	16.4	21.8	45.7	86.2	11.8	25.1	18.6	69.4	31.8	33.2	805
MAD i	2.9	4.4	9.74	3	4.85	2.73	2.6	5.5	5	4.85	1.02	38.5
IQR i	7.89	13.2	22.8	24.6	10.5	12.5	5.21	8.58	13.9	7.62	7.88	59.1
Robust CV % i	100	110	120	68	12	200	21	52	21	24	26	6.5
Median f	7.85	10.5	19	35.5	87	5.6	24.5	16.5	65.3	31.5	29.5	915
Mean f	9.03	13.2	21.8	35.2	86.2	5.03	25.1	18.6	69.4	31.8	29.5	917
MAD f	2.9	3.52	9.74	1	4.85	0.6	2.6	5.5	5	4.85	0.5	40
IQR f	7.89	6.52	22.8	2.96	10.5	2.02	5.21	8.58	13.9	7.62	0.76	66
Robust CV % f	100	62	120	8.3	12	36	21	52	21	24	2.6	7.2
Outliers	0	1	0	2	0	2	0	0	0	0	3	1
Stragglers	0	0	0	0	0	1	0	0	0	0	0	0

2009-10: Organic Carbon — W&B (6A1) %C

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	27	27	27	27	29	29	29	29	32	32	32	32
Minimum	1.45	2.7	0.71	1.34	0.70	0.84	0.17	0.53	1.95	0.13	2.29	0.87
Maximum	2.61	4.22	2.4	2.4	4.7	6.7	3.2	8.1	3.77	2.73	4.11	2.64
Median i	1.62	3.19	0.87	1.79	0.96	1.31	0.51	1.5	2.68	0.38	3.08	1.10
Mean i	1.77	3.32	1.0	1.84	1.14	1.51	0.73	1.7	2.76	0.53	3.14	1.19
MAD i	0.11	0.23	0.06	0.13	0.08	0.1	0.05	0.12	0.135	0.071	0.23	0.065
IQR i	0.17	0.43	0.141	0.178	0.111	0.174	0.125	0.192	0.254	0.221	0.35	0.1
Robust CV % i	11	13	16	9.9	12	13	25	13	9.5	58	11	9.1
Median f	1.62	3.13	0.86	1.78	0.96	1.31	0.50	1.5	2.66	0.37	3.07	1.1
Mean f	1.63	3.22	0.859	1.8	0.97	1.34	0.51	1.49	2.67	0.38	3.07	1.09
MAD f	0.075	0.18	0.048	0.098	0.074	0.1	0.042	0.095	0.1	0.046	0.22	0.06
IQR f	0.137	0.308	0.074	0.156	0.107	0.156	0.056	0.142	0.152	0.073	0.33	0.089
Robust CV % f	8.5	9.8	8.6	8.7	11	12	11	9.4	5.7	20	11	8.1
Outliers	5	2	4	2	2	2	7	4	7	5	2	5
Stragglers	0	1	1	2	2	0	1	1	0	5	0	0

2009-10: Total Organic Carbon — Dumas (6B2+6B3) %C

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	16	17	17	17	17	17	17	17
Minimum	0.14	0.17	0.07	0.12	0.70	0.85	0.19	0.51	2.83	0.25	2.8	0.86
Maximum	2.1	4.73	1.06	2.14	1.23	1.7	1.6	1.87	3.78	0.69	3.87	1.33
Median i	1.84	3.79	0.97	1.92	1.1	1.37	0.63	1.64	3.3	0.49	3.41	1.25
Mean i	1.63	3.36	0.85	1.69	1.07	1.34	0.64	1.54	3.27	0.51	3.38	1.21
MAD i	0.06	0.165	0.06	0.17	0.035	0.04	0.028	0.02	0.15	0.151	0.18	0.02
IQR i	0.135	0.389	0.162	0.326	0.070	0.048	0.05	0.059	0.274	0.203	0.319	0.052
Robust CV % i	7.3	10	17	17	6.4	3.5	8	3.6	8.3	41	9.3	4.2
Median f	1.86	3.84	0.99	1.94	1.1	1.38	0.63	1.64	3.3	0.49	3.41	1.26
Mean f	1.85	3.8	0.99	1.93	1.1	1.38	0.63	1.65	3.27	0.51	3.38	1.26
MAD f	0.014	0.113	0.037	0.126	0.03	0.02	0.028	0.02	0.15	0.151	0.18	0.025
IQR f	0.026	0.208	0.054	0.193	0.052	0.037	0.040	0.030	0.274	0.203	0.319	0.046
Robust CV % f	1.4	5.4	5.5	9.9	4.7	2.7	6.4	1.8	8.3	41	9.3	3.7
Outliers	4	4	2	2	1	3	3	4	0	0	0	3
Stragglers	4	1	3	1	0	1	0	0	0	0	0	0

2009-10: Total Organic Carbon — pooled (6B1 + 6B2 + 6B3 + Other) %C

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	22	22	22	22	22	23	23	23	21	21	21	21
Minimum	0.14	0.17	0.07	0.12	0.70	0.85	0.19	0.51	2.77	0.25	2.8	0.86
Maximum	2.1	4.73	1.09	2.14	1.23	2.42	1.6	1.87	3.78	0.69	3.87	1.33
Median i	1.84	3.73	0.97	1.91	1.10	1.38	0.6	1.64	3.29	0.47	3.43	1.25
Mean i	1.66	3.4	0.87	1.71	1.07	1.41	0.63	1.56	3.23	0.49	3.41	1.21
MAD i	0.085	0.21	0.062	0.17	0.04	0.05	0.041	0.04	0.16	0.097	0.16	0.02
IQR i	0.135	0.324	0.177	0.285	0.076	0.060	0.064	0.089	0.319	0.192	0.271	0.044
Robust CV % i	7.3	8.7	18	15	6.9	4.3	11	5.4	9.7	41	7.9	3.6
Median f	1.85	3.78	0.98	1.92	1.1	1.38	0.6	1.65	3.29	0.47	3.43	1.25
Mean f	1.83	3.71	0.96	1.9	1.09	1.38	0.61	1.65	3.23	0.49	3.41	1.26
MAD f	0.031	0.155	0.05	0.12	0.04	0.03	0.039	0.02	0.16	0.097	0.16	0.02
IQR f	0.085	0.246	0.061	0.2	0.070	0.048	0.059	0.037	0.319	0.192	0.271	0.041
Robust CV % f	4.6	6.5	6.2	10	6.4	3.5	9.9	2.2	9.7	41	7.9	3.3
Outliers	3	4	2	2	1	5	4	5	0	0	0	4
Stragglers	2	0	1	1	0	0	0	1	0	0	0	0

2009-10: Total N — Kjeldahl, steam distillation (7A1) %N

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	26	26	26	26	25	25	24	25	24	24	24	24
Minimum	0.049	0.067	0.018	0.058	0.014	0.044	0.013	0.022	0.291	0.034	0.193	0.09
Maximum	0.2	0.3	0.74	0.193	0.111	0.141	0.119	0.132	0.422	0.373	0.625	0.747
Median i	0.159	0.264	0.081	0.160	0.084	0.119	0.066	0.114	0.32	0.044	0.238	0.104
Mean i	0.155	0.253	0.12	0.151	0.084	0.116	0.065	0.11	0.327	0.061	0.256	0.135
MAD i	0.008	0.014	0.008	0.01	0.007	0.006	0.006	0.006	0.020	0.004	0.012	0.008
IQR i	0.012	0.023	0.014	0.017	0.011	0.010	0.007	0.009	0.031	0.010	0.019	0.014
Robust CV % i	7.5	8.6	17	11	13	8.1	11	7.8	9.7	22	7.9	13
Median f	0.159	0.268	0.081	0.16	0.084	0.119	0.066	0.117	0.32	0.042	0.236	0.102
Mean f	0.157	0.263	0.082	0.158	0.086	0.117	0.066	0.116	0.323	0.043	0.233	0.104
MAD f	0.006	0.012	0.004	0.01	0.007	0.004	0.005	0.006	0.02	0.002	0.012	0.006
IQR f	0.010	0.020	0.006	0.014	0.010	0.009	0.007	0.008	0.030	0.005	0.017	0.010
Robust CV % f	6.2	7.6	7.3	8.8	11	7.5	11	7.2	9.5	12	7.2	9.4
Outliers	2	2	3	2	1	1	3	3	1	3	3	3
Stragglers	2	0	3	0	1	2	0	0	0	1	0	0

2009-10: Total N — part-pool (7A1 + 7A2) %N

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	28	28	28	28	27	27	26	27	28	28	28	28
Minimum	0.049	0.067	0.018	0.058	0.014	0.044	0.013	0.022	0.272	0.034	0.193	0.09
Maximum	0.2	0.3	0.74	0.193	0.111	0.141	0.119	0.132	0.422	0.373	0.625	0.747
Median i	0.159	0.264	0.081	0.160	0.084	0.118	0.066	0.113	0.32	0.044	0.238	0.104
Mean i	0.155	0.254	0.117	0.152	0.084	0.115	0.0646	0.11	0.324	0.058	0.253	0.13
MAD i	0.008	0.014	0.006	0.010	0.007	0.007	0.005	0.007	0.02	0.004	0.014	0.008
IQR i	0.010	0.022	0.011	0.015	0.010	0.009	0.007	0.008	0.03	0.007	0.020	0.014
Robust CV % i	6.5	8.4	14	9.2	11	7.5	11	7.2	9.4	17	8.2	13
Median f	0.159	0.267	0.080	0.16	0.084	0.119	0.066	0.115	0.32	0.042	0.236	0.103
Mean f	0.157	0.263	0.080	0.159	0.086	0.118	0.065	0.116	0.32	0.043	0.233	0.104
MAD f	0.005	0.012	0.003	0.007	0.006	0.006	0.004	0.005	0.02	0.002	0.012	0.007
IQR f	0.009	0.021	0.005	0.011	0.009	0.009	0.007	0.008	0.029	0.005	0.018	0.010
Robust CV % f	5.8	7.9	6	7.1	11	7.8	11	7.1	9	12	7.9	9.4
Outliers	4	2	6	3	1	1	4	2	1	3	3	3
Stragglers	2	0	2	1	1	0	0	1	0	1	0	0

2009-10: Total N – Dumas (7A5) %N

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	12	12	12	12	15	15	15	15	13	13	13	13
Minimum	0.115	0.203	0.038	0.13	0.03	0.083	0.03	0.08	0.3	0.02	0.2	0.08
Maximum	3.88	1.85	1.01	1.95	0.15	0.155	0.1	0.15	0.367	0.09	0.558	0.589
Median i	0.16	0.272	0.08	0.176	0.083	0.12	0.064	0.12	0.343	0.041	0.257	0.113
Mean i	0.465	0.395	0.152	0.321	0.090	0.12	0.061	0.117	0.338	0.044	0.28	0.146
MAD i	0.01	0.018	0.008	0.01	0.016	0.01	0.008	0.012	0.018	0.005	0.016	0.015
IQR i	0.020	0.034	0.022	0.018	0.015	0.02	0.021	0.022	0.024	0.014	0.029	0.025
Robust CV % i	13	12	27	11	18	17	32	19	7.1	34	11	22
Median f	0.16	0.27	0.08	0.171	0.083	0.12	0.062	0.12	0.343	0.041	0.249	0.112
Mean f	0.154	0.262	0.080	0.173	0.090	0.12	0.059	0.117	0.338	0.040	0.251	0.109
MAD f	0.01	0.02		0.009	0.016	0.01	0.008	0.012	0.018	0.005	0.009	0.014
IQR f	0.022	0.037	0.001	0.012	0.0158	0.02	0.021	0.022	0.025	0.011	0.021	0.022
Robust CV % f	14	14	0.79	6.9	18	17	33	19	7.1	27	8.3	20
Outliers	1	1	3	1	0	0	1	0	0	1	1	1
Stragglers	0	0	4	0	0	0	0	0	0	0	1	0

2009-10: Water Soluble Nitrate N— autocolour (7B1) mg N/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results		15	15	15	14	14	14	14	15	15	15	15
Minimum	29	0.03	5.58	9	15	8.48	24.8	1.98	15	7.85	1	2.8
Maximum	59.5	4.62	11	16	32	14	38.8	8.3	46.5	12	24.9	52.8
Median i	38	1.2	7.26	11	19	9	28	3.58	39	9.85	3.44	42
Mean i	39.8	1.58	7.5	11.8	20.6	9.97	28.9	4.02	37.1	9.87	5.16	39.1
MAD i	2.3	0.72	0.76	1.48	1.1	0.44	1	0.72	3.6	1.15	0.96	3
IQR i	5.26	1.28	1.19	3.19	3.11	1.74	1.82	1.39	6.38	1.63	1.42	4.97
Robust CV % i	14	110	16	29	16	19	6.5	39	16	17	41	12
Median f	38	1.2	7.07	11	18.7	9	27.9	3.56	39.1	9.85	3.4	42.1
Mean f	38.4	1.36	7.25	11.8	18.5	9.2	27.5	3.69	39.7	9.87	3.29	41.7
MAD f	2.2	0.71	0.65	1.48	0.9	0.4	0.9	0.69	2.1	1.15	0.9	2.75
IQR f	4.36	1.13	1.09	3.19	1.41	0.59	1.76	1.19	3.82	1.63	1.52	4.58
Robust CV % f	11	94	15	29	7.5	6.6	6.3	34	9.8	17	45	11
Outliers	1	1	1	0	3	3	2	1	2	0	2	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: KCl Extractable Nitrate N — autocolour (7C2) mg N/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	20	20	20	20	19	19	19	19
Minimum	32	0.45	3	4	10	7	2.92	0.16	19.2	2.33	0.1	16.7
Maximum	40	4	11.4	15	24	27	28	26.1	49	17	24	45
Median i	37.7	0.91	6.73	10	19	8.84	25.75	3.13	37.1	10.3	2.96	38.3
Mean i	37.1	1.37	6.9	10.1	18.7	9.84	23.5	4.15	37.3	10.3	4.3	38.1
MAD i	1.35	0.24	0.45	0.67	0.5	0.6	0.85	0.32	1.5	0.85	0.46	1.3
IQR i	2.39	0.69	0.78	1.12	1	0.85	1.32	0.49	2.22	1.21	0.74	3.04
Robust CV % i	6.3	76	12	11	5.3	9.6	5.1	16	6	12	25	7.9
Median f	37.7	0.87	6.7	10	19	8.83	26	3.16	37.1	10.3	2.8	38.3
Mean f	37.1	0.81	6.59	9.89	19.1	8.94	25.8	3.23	37.6	10.4	2.89	39
MAD f	1.35	0.12	0.4	0.4	0.5	0.57	0.9	0.22	1.1	0.7	0.3	1.2
IQR f	2.39	0.24	0.70	0.62	0.59	0.88	1.37	0.37	1.96	1.18	0.52	2.67
Robust CV % f	6.3	28	10	6.2	3.1	9.9	5.3	12	5.3	11	19	7
Outliers	0	4	3	3	3	1	2	4	2	2	4	2
Stragglers	0	0	0	0	0	0	0	2	0	0	0	0

2009-10: KCl Ext. Ammonium N — autocolour (7C2) mg N/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	22	22	22	22	6	6	6	6	22	22	22	22
Minimum	5.8	7.1	0.901	28	1049	269	140	360	9.1	0.1	65.7	0.1
Maximum	31	50	17	78	1706	369	346	551	125	20	140	22
Median i	24.2	43.8	12.95	60	1350	327	233	465	101	6	104	10.8
Mean i	22.8	40.5	11.8	58.6	1340	318	244	452	96.4	6.3	103	10.5
MAD i	1.8	1.8	0.4	4.15	110	26.3	47	51.5	3.5	0.42	5	0.92
IQR i	2.56	2.63	0.96	8.71	244	51.6	90.4	92.7	6.19	0.66	8.43	1.22
Robust CV % i	11	6	7.4	15	18	16	39	20	6.1	11	8.1	11
Median f	25	44.1	13	60	1350	328	233	465	102	6	104	10.8
Mean f	24.4	44.7	13	59.1	1340	318	244	452	101	5.97	104	10.7
MAD f	1	1.8	0.2	3.5	110	26.3	47	51.5	3.5	0.4	5	0.4
IQR f	1.82	3.09	0.26	7.04	244	51.6	90.4	92.7	5.34	0.60	6.67	0.74
Robust CV % f	7.3	7	2	12	18	16	39	20	5.3	10	6.4	6.9
Outliers	3	4	5	2	0	0	0	0	4	4	3	5
Stragglers	2	0	4	0	0	0	0	0	0	0	0	2

2009-10: Total P – all methods; %P

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	22	22	22	22	20	20	20	20	16	16	16	16
Minimum	0.010	0.009	0.025	0.024	0.0013	0.006	0.012	0.002	0.095	0.041	0.03	0.014
Maximum	0.047	0.051	0.1	0.078	0.038	0.027	0.111	0.090	0.17	0.072	0.056	0.046
Median i	0.038	0.042	0.079	0.071	0.027	0.018	0.088	0.025	0.126	0.053	0.046	0.021
Mean i	0.037	0.040	0.075	0.068	0.026	0.018	0.080	0.028	0.129	0.054	0.044	0.024
MAD i	0.002	0.002	0.008	0.003	0.003	0.002	0.007	0.002	0.014	0.004	0.004	0.002
IQR i	0.003	0.003	0.015	0.005	0.004	0.002	0.012	0.003	0.025	0.007	0.007	0.004
Robust CV % i	7	6.8	19	6.8	16	14	13	13	20	13	15	21
Median f	0.038	0.042	0.080	0.072	0.0273	0.018	0.088	0.024	0.126	0.052	0.046	0.021
Mean f	0.040	0.042	0.078	0.072	0.027	0.017	0.086	0.025	0.129	0.053	0.044	0.021
MAD f	0.002	0.002	0.008	0.003	0.003	0.002	0.005	0.001	0.014	0.004	0.004	0.001
IQR f	0.002	0.002	0.014	0.004	0.004	0.002	0.009	0.003	0.025	0.006	0.007	0.002
Robust CV % f	6.5	6	18	6.3	15	14	10	11	20	12	15	12
Outliers	2	3	1	2	1	3	2	2	0	1	0	2
Stragglers	0	0	0	1	0	0	2	2	0	0	0	2

2009-10: Colwell Extractable P — pooled (9B1 + 9B2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	24	24	24	24	23	24	24	24	25	25	25	25
Minimum	29	31	50	96	1.8	15.7	18	16.2	40.3	19.6	9.2	3.51
Maximum	59	109	270	207	18	52	116	86	233	69	161	22
Median i	31.9	42	92	128	6.4	19.1	80.2	21	64.6	24.2	100	7.26
Mean i	34.7	44.9	97.6	135	7.13	22.2	80.1	25.2	74.6	27.4	100	8.7
MAD i	1.55	3.25	5.6	8.05	1.13	1.3	3.8	2.1	2.4	2.3	4	1.54
IQR i	4.37	5.34	8.93	15.6	1.79	2.22	6.78	3.09	4.6	3.15	7.56	2.2
Robust CV % i	14	13	9.7	12	28	12	8.5	15	7.1	13	7.6	30
Median f	31.4	42	92	128	6	18.7	80.2	19.2	64	23.8	99.8	7.08
Mean f	32.2	41.4	92	127	5.94	18.4	81.3	20	64.1	23.9	99.5	7.3
MAD f	1.25	2	5.25	6	0.66	1.2	3.1	1.45	1	1.6	2.7	1.13
IQR f	1.69	3.56	8.27	7.41	1.12	1.93	5.23	2.52	1.96	2.78	4.26	1.73
Robust CV % f	5.4	8.5	9	5.8	19	10	6.5	13	3.1	12	4.3	24
Outliers	3	2	2	3	5	4	2	4	5	3	4	3
Stragglers	1	1	0	2	2	1	0	0	3	0	1	0

2009-10: Olsen Extractable P — Pooled (9C1 + 9C2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	25	25	25	25	25	25	25	25	24	25	25	25
Minimum	10	11	32	31.8	0.3	5.5	6	0.11	12.4	5.45	34.9	0.41
Maximum	41	36	66	65	13	75	296	63	42.5	29	93	19
Median i	14.4	15	40.1	43.5	1.9	12.9	49.7	7.96	17	7.2	46	2
Mean i	15.5	16.7	41.6	44.4	2.49	14.7	57	9.93	19.8	9.24	47.7	3.11
MAD i	1.6	2	3.13	4.6	0.78	1.6	3.6	1.06	2.35	0.9	3.6	0.6
IQR i	2.34	3.74	5.19	7.23	1.12	1.96	5.86	1.87	5.6	1.89	5.46	1.01
Robust CV % i	16	25	13	17	59	15	12	24	33	26	12	50
Median f	14	15	40	43.3	1.9	12.5	49.7	7.96	16.4	6.95	43	2
Mean f	14.1	15.5	39.9	43.5	2.05	12.2	49.3	8.18	15.9	7.02	43.6	2.06
MAD f	1.3	2	3	4.55	0.77	1.3	3.3	0.94	1.25	0.8	3	0.5
IQR f	2	3.41	5.19	6.75	1.05	1.74	4.82	1.3	2.28	1.28	3.97	0.81
Robust CV % f	14	23	13	16	55	14	9.7	16	14	18	9.2	40
Outliers	2	2	2	1	1	2	4	5	3	5	2	3
Stragglers	0	0	0	0	0	1	0	1	3	0	2	0

2009-10: Bray-1 Extractable P — pooled (9E1 + 9E2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	10	10	10	10	11	11	11	11	14	14	14	14
Minimum	1	0.6	9.04	2.9	0.09	0.04	5.4	0.31	5.8	1.94	17.4	0.01
Maximum	25.6	19	36.4	105	0.96	20.2	82.3	8.51	30	75.8	175	3.8
Median i	21.1	15.4	26.3	81.7	0.32	17.1	65	6.01	14.7	11.15	66.5	1
Mean i	19.2	13.2	26.3	73.9	0.411	15.8	56.5	5.59	16.5	19	71.4	1.16
MAD i	2.75	3.26	5.95	8.89	0.18	2	9	0.99	1.9	6	16.1	0.54
IQR i	5.17	4.47	8.62	17.7	0.30	3.11	23.9	1.74	3.8	11.6	24.2	0.85
Robust CV % i	25	29	33	22	95	18	37	29	26	100	36	85
Median f	21.3	15.4	26.3	87.1	0.32	17.9	69	6.15	14.4	8.6	66	1
Mean f	21.2	13.2	26.3	81.8	0.41	17.4	64.8	6.11	15.2	10.9	63.5	0.95
MAD f	2.5	3.26	5.95	10.9	0.18	2	5	0.72	1.26	4.8	15.1	0.5
IQR f	3.56	4.47	8.62	13.9	0.30	3.09	14.4	1.11	3.01	9.1	22.2	0.76
Robust CV % f	17	29	33	16	95	17	21	18	21	110	34	75
Outliers	1	0	0	1	0	1	1	1	3	2	1	1
Stragglers	0	0	0	0	0	0	1	0	0	0	0	0

2009-10: Acid Extractable P — pooled (9G1 + 9G2) mgP/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	2	2	2	2	3	3	3	3	7	7	7	7
Minimum	54	31	284	155	2	20	10	16	44	390	186	0.8
Maximum	67	37	358	214	10	27	717	715	56.3	530	240	26
Median i	60.5	34	321	184	9	20	508	23	52	472	215	4
Mean i	60.5	34	321	185	7	22.3	412	251	50.7	478	213	8.29
MAD i	6.5	3	37	29.5	1		209	7	3	38	15	3
IQR i					5.93	5.19	524	518	8.15	55.6	25.2	11.1
Robust CV % i					66	26	100	2300	16	12	12	280
Median f	60.5	34	321	185	9	20	508	19.5	52	472	215	3.95
Mean f	60.5	34	321	185	7	22.3	412	19.5	50.7	478	213	5.33
MAD f	6.5	3	37	29.5	1		209	3.5	3	38	15	2.65
IQR f					5.93	5.19	524		8.15	55.6	25.2	5.76
Robust CV % f					66	26	100		16	12	12	150
Outliers												
Stragglers												

2009-10: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	16	16	16	16	18	18	18	18	16	16	16	16
Minimum	36.4	85	141	67	682	21.3	34.5	38.8	223	37.2	55.2	356
Maximum	63	134	169	114	1098	30.6	65.7	81	272	51	81	559
Median i	41	111	150	91.4	914	24.6	40	63.4	256	43.2	63	485
Mean i	43.6	109	151	91.2	904	24.8	42.2	63.3	254	44	64.7	478
MAD i	2.3	4.45	5.57	2.4	42	2.14	2.81	2.37	6	2.1	4	30.5
IQR i	5.62	8.04	8.86	3.52	81.2	3.32	4.66	4.5	10.2	4.58	7.52	44.3
Robust CV % i	14	7.2	5.9	3.9	8.9	14	12	7.1	4	11	12	9.1
Median f	40.1	112	150	91.4	914	24.6	39.6	63.4	258	43.3	62.7	485
Mean f	41.1	111	151	91	905	24.8	40.2	63.7	257	44	63.6	478
MAD f	1.1	3	5.57	1.9	39.5	2.14	2.51	2.25	5	2.1	2.6	30.5
IQR f	3.82	5.29	8.86	3.06	62.1	3.32	3.8	3.89	7.97	4.58	7.34	44.3
Robust CV % f	9.5	4.7	5.9	3.3	6.8	14	9.6	6.1	3.1	11	12	9.1
Outliers	2	2	0	3	2	0	2	2	1	0	1	0
Stragglers	1	1	0	1	0	0	0	0	1	0	0	0

2009-10: Phosphorus buffer index - Olsen (9I3a + 9I3b + 9I3c) L/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	2	2	2	2	1	1	1	1	2	2	2	2
Minimum	45.7	111	162	100	993	29	64	69.8	238	44	83.4	416
Maximum	51.6	119	177	103	993	29	64	69.8	263	45.7	93	492
Median i	48.6	115	170	102	993	29	64	69.8	250	44.8	88.2	454
Mean i	48.7	115	170	102	993	29	64	69.8	251	44.9	88.2	454
MAD i	2.95	4	7.5	1.5					12.5	0.85	4.8	38
IQR i												
Robust CV % i												
Median f	48.7	115	170	102	993	29	64	69.8	251	44.9	88.2	454
Mean f	48.7	115	170	102	993	29	64	69.8	251	44.9	88.2	454
MAD f	2.95	4	7.5	1.5					12.5	0.85	4.8	38
IQR f												
Robust CV % f												
Outliers												
Stragglers												

2009-10: Phosphate Extractable S (10B3) mg S/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	7	7	7	7	7	7	7	7
Minimum	11	11	17	28	39	8.7	13	7.6	20	82	22	56
Maximum	29.9	41.8	37.2	72.4	168	27.5	33	34	66.9	90.3	50.7	162
Median i	12.7	23	21.8	47.3	136	10.6	15	12.8	46	87	33	153
Mean i	14.5	23.6	23.3	47.3	128	13.3	17.3	15.4	45.7	85.9	33.9	141
MAD i	0.475	2.05	1	3	7	1.87	1	1.84	5.05	3	3.31	5.58
IQR i	0.73	2.91	1.87	5.54	12.6	5.39	1.73	5.22	7.52	3.75	5.12	8.15
Robust CV % i	5.8	13	8.6	12	9.3	51	12	41	16	4.3	16	5.3
Median f	12.6	23	21.3	47.3	139	10.3	15	11.9	46	87	33	156
Mean f	12.4	22.6	21.3	46.4	143	10.9	14.7	12.3	45.7	85.9	33.9	156
MAD f	0.4	1.05	0.96	1.85	5.24	1.39	0.65	1.17	5.05	3	3.31	4.5
IQR f	0.74	2.01	1.48	3.97	13	2.89	1.46	3.23	7.52	3.75	5.12	7.41
Robust CV % f	5.9	8.7	6.9	8.4	9.4	28	9.7	27	16	4.3	16	4.7
Outliers	1	2	1	2	1	1	1	1	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: KCl_{40} Extractable S (10D1) mg S/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	14	14	14	14	14	14	14	14	13	13	13	13
Minimum	9.95	11.1	15.9	30	13.6	2.38	2.61	1	16	51.3	17.3	39.7
Maximum	65	86	127	118	69	15	19.6	13	27	98	32	77
Median i	11	13.8	18.3	41	28.6	9.06	13.6	7.91	23.6	82.5	26.3	69.2
Mean i	18	23.3	29	51.7	31.7	9.04	13.2	8.24	22.7	78.9	25.2	64.3
MAD i	0.65	1.5	1.6	4.3	3.95	1	1.31	0.82	2.3	8	3.3	4.2
IQR i	5.52	8.19	3.35	7.25	5.3	1.91	1.95	2.54	3.52	11.1	5.56	9.27
Robust CV % i	50	60	18	18	19	21	14	32	15	13	21	13
Median f	11	13	18.1	40.5	28.2	9.06	13.6	7.6	23.6	82.5	26.3	70
Mean f	10.8	13.3	18.3	40.9	28.8	9.1	13.6	7.93	22.7	78.9	25.2	67.7
MAD f	0.5	0.8	1.1	3.55	4	0.84	1.06	0.68	2.3	8	3.3	1.1
IQR f	0.61	1.46	1.74	5.89	5.19	1.37	1.69	0.90	3.52	11.1	5.56	4.89
Robust CV % f	5.6	11	9.7	15	18	15	12	12	15	13	21	7
Outliers	4	3	2	2	1	2	2	2	0	0	0	1
Stragglers	0	1	0	0	0	0	0	2	0	0	0	1

2009-10: DTPA Extractable Fe (12A1) mg Fe/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	34	34	34	34	29	29	29	29	29	30	30	30
Minimum	6.15	33	3.5	41	2.9	46	1.5	71.3	87	0.3	2.56	4.98
Maximum	67	416	96	412	57.4	142	23	220	304	14.5	264	73.9
Median i	19.3	107	31.2	181	7.7	75.3	6.8	126	169	2.48	168	13.7
Mean i	21.6	113	33.5	191	11.7	77.1	8.21	129	177	3.28	160	17.4
MAD i	2.2	12.4	5.2	98.8	3.06	6.7	1.4	8	29	0.8	19	2.45
IQR i	3.47	20.7	7.75	149	5.22	10.1	2.56	12.2	43	1.64	30.4	5.45
Robust CV % i	18	19	25	82	68	13	38	9.7	25	66	18	40
Median f	19	109	31.1	181	7.15	75.3	6.55	126	167	2.2	171	12.9
Mean f	19.2	107	30.5	191	7.95	75.3	6.81	126	173	2.44	171	12.9
MAD f	1.5	8.7	5	98.8	2.25	5.3	1.34	4	27.5	0.59	19	1.2
IQR f	2.59	12.8	6.45	149	4.14	6.3	1.96	6.86	41.5	1.21	26.5	1.96
Robust CV % f	14	12	21	82	58	8.4	30	5.4	25	55	16	15
Outliers	6	6	4	0	4	4	4	6	1	4	4	3
Stragglers	1	2	0	0	0	4	0	2	0	0	0	5

2009-10: DTPA Extractable Cu (12A1) mg Cu/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	33	33	33	33	28	28	28	28	29	30	30	30
Minimum	0.38	0.7	1.45	0.46	0.01	0.71	0.92	1.2	0.62	0.62	1.2	0.01
Maximum	1.65	7.9	3.5	1.66	1.4	3	3.9	4.7	3.52	2.29	4.03	1.64
Median i	0.61	1.85	2.13	0.98	0.06	1	1.02	1.88	1.57	1.4	2.3	0.40
Mean i	0.66	2.08	2.21	1.04	0.17	1.14	1.18	1.99	1.62	1.47	2.42	0.50
MAD i	0.03	0.19	0.17	0.12	0.02	0.08	0.08	0.08	0.13	0.10	0.18	0.06
IQR i	0.06	0.31	0.27	0.24	0.07	0.19	0.11	0.12	0.23	0.17	0.29	0.11
Robust CV % i	10	17	13	24	120	19	11	6.6	15	12	12	26
Median f	0.6	1.8	2.12	0.96	0.06	1	1	1.83	1.57	1.4	2.3	0.39
Mean f	0.6	1.77	2.11	1.01	0.06	1	1.02	1.84	1.58	1.39	2.33	0.39
MAD f	0.03	0.11	0.12	0.06	0.01	0.05	0.06	0.07	0.07	0.08	0.16	0.03
IQR f	0.04	0.2	0.15	0.15	0.01	0.08	0.10	0.08	0.10	0.13	0.22	0.05
Robust CV % f	7.4	11	7	15	13	8.2	10	4.5	6.6	9.5	9.4	14
Outliers	8	5	5	5	7	5	3	4	4	7	9	6
Stragglers	0	2	1	3	6	2	1	1	4	0	0	2

2009-10: DTPA Extractable Mn (12A1) mg Mn/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	33	33	33	33	28	28	28	28	28	29	29	29
Minimum	58	38	41	50	0.61	38	14.6	28.3	69	11.7	11	13
Maximum	159	300	163	220	5.45	160	40	340	255	36	61.1	44
Median i	130	136	68	140	1.88	89.6	17.8	162	1705	21.5	43.9	25.6
Mean i	123	140	73.4	142	2.24	92	18.9	163	169	23.4	43.6	28.1
MAD i	10	17	11	18	0.64	7.6	1.3	17.5	20.7	2.38	2.1	4
IQR i	17.4	32.2	15.3	30	1.04	11	1.96	25.2	30.9	4.34	3.6	7.96
Robust CV % i	13	24	23	21	55	12	11	16	18	20	8.2	31
Median f	131	136	68	137	1.6	89.6	17.8	164	170	21	42.8	25.6
Mean f	130	139	70.6	140	1.67	91.4	17.8	168	170	21.5	43.5	27
MAD f	8	16	10.5	18.5	0.37	7.05	1.25	15	17	1.55	2	3.8
IQR f	12.6	31.1	15	26.5	0.56	10.8	1.89	21.9	26.5	2.59	2.93	6.06
Robust CV % f	9.6	23	22	19	35	12	11	13	16	12	6.8	24
Outliers	3	2	1	3	4	2	2	3	3	4	3	2
Stragglers	1	0	0	0	1	0	0	1	1	3	1	0

2009-10: DTPA Extractable Zn (12A1) mg Zn/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	33	33	33	33	28	28	28	28	28	30	30	30
Minimum	2.38	0.69	0.54	1.22	0.04	1.8	1.32	1.4	0.04	0.27	6	0.13
Maximum	4.2	2.09	5.6	2.88	0.71	3.22	3.1	2.12	0.71	1.2	14.7	1.9
Median i	3.38	1.32	1	2	0.11	2.54	1.96	1.9	0.11	0.56	10.1	0.24
Mean i	3.36	1.38	1.17	2.07	0.14	2.54	1.99	1.87	0.14	0.60	10.1	0.39
MAD i	0.2	0.14	0.1	0.28	0.04	0.07	0.14	0.09	0.04	0.08	0.43	0.07
IQR i	0.33	0.22	0.18	0.37	0.05	0.12	0.18	0.13	0.05	0.14	0.72	0.18
Robust CV % i	9.8	17	18	19	48	4.5	9.2	7	48	26	7.1	77
Median f	3.38	1.3	1	2	0.10	2.56	1.92	1.9	0.10	0.56	10	0.22
Mean f	3.36	1.33	1.03	2.07	0.10	2.57	1.88	1.89	0.10	0.57	9.97	0.23
MAD f	0.2	0.11	0.09	0.28	0.03	0.06	0.1	0.09	0.03	0.05	0.38	0.05
IQR f	0.33	0.18	0.12	0.37	0.05	0.09	0.16	0.13	0.05	0.10	0.61	0.09
Robust CV % f	9.7	14	12	19	49	3.5	8.1	7	49	17	6.1	41
Outliers	2	3	5	0	3	3	5	1	3	3	6	5
Stragglers	0	2	2	0	0	3	0	0	0	5	0	2

2009-10: Hot $CaCl_2$Extractable B — ICPAES (12C2) mg B/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	19	19	19	19	18	18	18	18	18	18	18	18
Minimum	0.2	0.29	0.22	0.52	0.15	0.5	0.3	0.3	0.60	1.03	0.4	4.28
Maximum	0.89	0.94	1.4	1.65	0.96	2.35	1.1	0.90	3.1	2.6	2.32	15.1
Median i	0.63	0.57	0.9	1.07	0.70	0.95	0.66	0.61	1.38	1.84	0.79	7.25
Mean i	0.62	0.58	0.88	1.01	0.64	1.05	0.66	0.59	1.41	1.8	0.88	7.35
MAD i	0.12	0.07	0.12	0.11	0.15	0.24	0.07	0.06	0.29	0.21	0.08	1.67
IQR i	0.18	0.13	0.16	0.21	0.27	0.39	0.11	0.07	0.46	0.31	0.14	2.62
Robust CV % i	28	23	18	20	39	41	17	12	33	17	18	36
Median f	0.63	0.56	0.9	1.1	0.70	0.9	0.65	0.62	1.23	1.85	0.78	7.2
Mean f	0.62	0.56	0.89	1.07	0.64	0.97	0.63	0.62	1.22	1.8	0.80	6.9
MAD f	0.12	0.08	0.09	0.04	0.15	0.20	0.06	0.04	0.26	0.21	0.08	1.53
IQR f	0.18	0.14	0.16	0.10	0.27	0.36	0.08	0.06	0.41	0.31	0.12	2.51
Robust CV % f	28	24	18	9.4	39	40	12	9.2	33	17	15	35
Outliers	0	1	1	3	0	1	3	2	1	0	3	1
Stragglers	0	0	1	2	0	0	0	2	1	0	0	0

2009-10: Hot $CaCl_2$Extractable B — pooled (12C1 + 12C2) mg B/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	21	21	21	21	19	19	19	19	21	21	21	21
Minimum	0.2	0.29	0.22	0.52	0.15	0.5	0.3	0.3	0.61	1.03	0.4	4.28
Maximum	1	1.1	1.4	2.7	0.96	2.35	1.1	0.9	3.1	2.64	4.8	15.1
Median i	0.64	0.61	0.9	1.1	0.68	0.95	0.65	0.6	1.35	1.85	0.85	7.2
Mean i	0.64	0.61	0.88	1.13	0.64	1.04	0.66	0.58	1.4	1.82	1.26	7.17
MAD i	0.13	0.11	0.1	0.14	0.16	0.22	0.07	0.05	0.27	0.25	0.14	1.8
IQR i	0.21	0.18	0.16	0.23	0.26	0.38	0.1	0.07	0.44	0.34	0.31	2.7
Robust CV % i	32	29	18	21	38	40	15	11	32	18	36	37
Median f	0.64	0.59	0.9	1.09	0.68	0.92	0.65	0.62	1.2	1.85	0.78	6.88
Mean f	0.64	0.59	0.89	1.03	0.64	0.97	0.65	0.62	1.25	1.82	0.8	6.77
MAD f	0.132	0.1	0.09	0.06	0.16	0.21	0.04	0.04	0.27	0.25	0.08	1.74
IQR f	0.21	0.16	0.16	0.17	0.26	0.34	0.08	0.06	0.42	0.34	0.12	2.63
Robust CV % f	32	27	18	16	38	37	12	9.2	35	18	15	38
Outliers	0	1	2	2	0	1	3	3	2	0	4	1
Stragglers	0	0	0	3	0	0	1	2	0	0	2	0

2009-10: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	16	16	16	16	19	19	19	19
Minimum	9.87	12.4	21.7	3.2	1.7	1.2	9.89	2.4	0.45	0.73	0.62	4.38
Maximum	21	26.7	45.5	9.5	32	26	32	33	21.4	34.1	35.4	26.4
Median i	10.6	13.4	23.6	3.78	3.36	2.19	19.4	4.92	13.4	23.8	7.42	4.75
Mean i	12.1	14.4	24.7	4.28	5.01	3.58	18.6	6.72	13.1	21.8	9.36	6.66
MAD i	0.3	0.4	1	0.38	0.12	0.07	0.8	0.22	0.4	1.4	0.42	0.31
IQR i	0.63	0.67	1.45	0.64	0.25	0.11	1.21	0.4	0.59	2.97	0.96	0.75
Robust CV % i	5.9	5	6.1	17	7.5	5	6.3	8.1	4.4	12	13	16
Median f	10.6	13.3	23.3	3.73	3.41	2.2	19.7	4.93	13.4	24	7.31	4.74
Mean f	10.6	13.4	23.4	3.78	3.4	2.17	19.5	4.92	13.5	24	7.3	4.79
MAD f	0.25	0.4	0.8	0.3	0.08	0.05	0.45	0.14	0.3	0.54	0.11	0.19
IQR f	0.39	0.44	1.26	0.56	0.13	0.08	0.72	0.20	0.47	0.98	0.18	0.38
Robust CV % f	3.7	3.3	5.4	15	3.7	3.7	3.7	4.1	3.5	4.1	2.5	8
Outliers	3	2	1	2	4	2	4	3	6	5	4	3
Stragglers	0	0	0	0	0	1	0	1	1	2	3	1

2009-10: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	16	16	16	16	19	19	19	19
Minimum	3.1	4.87	11.9	0.52	2.75	0.45	1.11	2.49	1.8	0.35	0.35	4.7
Maximum	8.87	12.3	49.9	5.3	53	8.2	19	34	18.7	7.74	6.31	38
Median i	3.6	5.46	23.5	0.68	5.02	0.51	1.3	3.12	16.3	2.19	1.64	9.95
Mean i	4.18	6.05	24.3	1.03	7.91	0.98	2.38	5.11	14.8	2.46	1.88	11.1
MAD i	0.17	0.21	1.5	0.1	0.2	0.02	0.03	0.1	1	0.19	0.16	0.45
IQR i	0.33	0.61	2.3	0.23	0.3	0.04	0.05	0.13	2.3	0.38	0.24	0.70
Robust CV % i	9.2	11	9.8	33	5.9	7.9	3.7	4.3	14	17	15	7.1
Median f	3.54	5.4	23.7	0.66	5.02	0.51	1.31	3.12	16.9	2.18	1.62	9.95
Mean f	3.53	5.42	24.1	0.66	5.04	0.50	1.31	3.09	16.8	2.2	1.66	10
MAD f	0.18	0.15	0.95	0.05	0.10	0.01	0.02	0.06	0.8	0.18	0.1	0.45
IQR f	0.28	0.26	1.65	0.08	0.21	0.03	0.03	0.124	0.96	0.29	0.2	0.59
Robust CV % f	7.9	4.8	7	12	4.2	5.9	2.6	4	5.7	13	12	6
Outliers	3	3	5	3	4	1	3	3	3	3	3	3
Stragglers	0	1	0	1	0	0	1	1	1	0	0	1

2009-10: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	17	17	17	17	16	16	16	16	19	19	19	19
Minimum	0.02	0.04	0.14	0.03	0.23	0.01	0.04	0.07	0.02	0.08	0.03	0.04
Maximum	6.1	4.3	1.88	0.41	0.99	0.41	0.51	0.59	2.19	1.4	0.42	8.96
Median i	0.07	0.18	0.94	0.12	0.47	0.03	0.1	0.16	1.57	1.14	0.2	7.28
Mean i	0.44	0.44	1	0.16	0.5	0.08	0.14	0.21	1.38	0.99	0.19	6.95
MAD i	0.02	0.05	0.06	0.02	0.03	0.01	0.03	0.04	0.13	0.13	0.02	0.44
IQR i	0.03	0.09	0.18	0.05	0.06	0.05	0.05	0.09	0.35	0.24	0.05	0.85
Robust CV % i	48	51	20	43	13	190	48	57	22	21	25	12
Median f	0.06	0.16	0.92	0.12	0.47	0.02	0.09	0.15	1.58	1.18	0.2	7.29
Mean f	0.06	0.18	0.93	0.12	0.47	0.02	0.09	0.16	1.54	1.13	0.2	7.39
MAD f	0.02	0.03	0.04	0.005	0.02	0.002	0.02	0.04	0.1	0.08	0.01	0.35
IQR f	0.028	0.057	0.078	0.009	0.037	0.001	0.044	0.059	0.178	0.139	0.020	0.714
Robust CV % f	45	35	8.4	7.7	7.8	32	49	38	11	12	10	9.8
Outliers	2	2	5	3	4	5	2	2	4	3	6	2
Stragglers	0	2	1	3	0	0	1	0	0	0	1	1

2009-10: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	18	18	18	18	16	16	16	16	19	19	19	19
Minimum	0.262	0.485	1.95	1.3	0.508	0.35	0.6	0.398	0.06	0.11	0.05	0.286
Maximum	1.3	1.34	5.93	3.35	0.917	0.706	0.99	0.894	0.66	1.29	0.673	2.4
Median i	0.312	0.622	2.26	1.48	0.59	0.479	0.713	0.492	0.531	0.982	0.36	1.21
Mean i	0.435	0.769	2.8	1.78	0.614	0.474	0.722	0.521	0.515	0.911	0.368	1.25
MAD i	0.034	0.062	0.125	0.133	0.024	0.021	0.044	0.014	0.031	0.048	0.04	0.067
IQR i	0.155	0.216	0.341	0.237	0.037	0.051	0.068	0.021	0.050	0.111	0.059	0.089
Robust CV % i	50	35	15	16	6.2	11	9.5	4.3	9.5	11	16	7.4
Median f	0.301	0.594	2.21	1.45	0.589	0.48	0.71	0.493	0.534	0.99	0.36	1.21
Mean f	0.304	0.604	2.22	1.5	0.58	0.473	0.704	0.494	0.551	0.994	0.369	1.22
MAD f	0.012	0.018	0.085	0.12	0.021	0.02	0.035	0.008	0.034	0.04	0.039	0.045
IQR f	0.019	0.035	0.14	0.145	0.031	0.039	0.05	0.014	0.058	0.061	0.052	0.081
Robust CV % f	6.4	6	6.4	10	5.3	7.9	7	2.8	11	6.1	14	6.6
Outliers	5	4	4	3	2	3	1	4	2	4	2	3
Stragglers	1	2	0	0	0	0	0	2	0	0	0	0

2009-10: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	24	24	24	24	20	20	20	20	22	22	22	22
Minimum	8.43	6.38	8.56	2.34	1.92	1.18	10.3	2.83	10.2	9.98	5.05	3.35
Maximum	90	92	180	24	615	407	3695	890	20.18	32.2	14	8.27
Median i	10.6	13.0	22.8	3.76	3.42	2.24	18.2	4.95	12.7	22.3	7.07	4.52
Mean i	14.3	16.7	29.9	4.81	33.9	22.4	202	49.3	12.9	22.3	7.48	4.66
MAD i	0.66	0.65	1.46	0.335	0.18	0.13	1.45	0.2	0.75	3.14	0.53	0.28
IQR i	1	0.88	2.73	0.56	0.28	0.21	2.21	0.34	1.13	4.97	0.80	0.44
Robust CV % i	9.4	6.7	12	15	8.2	9.5	12	6.9	8.9	22	11	9.7
Median f	10.6	13	22.8	3.74	3.42	2.24	18.4	4.95	12.7	22.3	7.07	4.53
Mean f	10.6	13	22.9	3.77	3.42	2.23	18.4	4.99	12.6	22.3	7.28	4.54
MAD f	0.38	0.25	1	0.18	0.14	0.11	1.19	0.17	0.67	3.14	0.44	0.28
IQR f	0.67	0.48	1.63	0.31	0.23	0.2	1.93	0.27	1.07	4.97	0.74	0.42
Robust CV % f	6.3	3.7	7.2	8.3	6.8	8.7	10	5.4	8.4	22	10	9.2
Outliers	4	4	5	4	2	2	3	3	1	0	1	2
Stragglers	1	2	0	1	0	0	0	0	0	0	1	0

2009-10: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	24	24	24	24	20	20	20	20	22	22	22	22
Minimum	2.7	2.68	1.72	0.49	3.94	0.39	0.98	2.17	8.24	1.8	1.38	6.88
Maximum	36	57	253	5.33	552	55.8	140	334	20.3	9.24	14.9	17.2
Median i	3.4	5.32	22.4	0.64	4.84	0.51	1.24	2.96	15.5	2.11	1.54	9.37
Mean i	4.88	7.22	30.5	0.94	32.2	3.27	8.17	19.6	15.2	2.42	2.14	9.71
MAD i	0.16	0.34	1.92	0.07	0.34	0.03	0.06	0.12	0.76	0.16	0.08	0.56
IQR i	0.42	0.57	3.84	0.11	0.54	0.053	0.08	0.24	1.33	0.24	0.12	0.86
Robust CV % i	12	11	17	17	11	9.7	6.8	8.3	8.5	12	8.1	9.2
Median f	3.36	5.34	22.7	0.62	4.84	0.5	1.24	2.94	15.6	2.1	1.52	9.37
Mean f	3.38	5.27	22.8	0.62	4.81	0.50	1.24	2.94	15.7	2.1	1.53	9.47
MAD f	0.12	0.25	0.88	0.04	0.32	0.02	0.05	0.06	0.60	0.12	0.06	0.5
IQR f	0.2	0.51	1.47	0.083	0.50	0.02	0.07	0.10	1.18	0.23	0.12	0.79
Robust CV % f	5.8	9.6	6.5	12	10	4.3	6	3.5	7.6	11	7.6	8.4
Outliers	4	3	6	3	1	1	3	3	4	1	1	2
Stragglers	2	0	2	1	0	3	0	3	0	0	0	0

2009-10: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	23	23	23	23	19	19	19	19	21	21	21	21
Minimum	0.03	0.018	0.491	0.07	0.244	0.001	0.04	0.082	1.39	1.01	0.031	1.97
Maximum	0.35	1.36	9.27	0.99	99.1	3.88	19	31	1.89	1.69	0.35	8.93
Median i	0.065	0.174	0.87	0.121	0.467	0.04	0.1	0.146	1.57	1.17	0.201	7.08
Mean i	0.093	0.228	1.26	0.181	5.65	0.255	1.11	1.79	1.57	1.19	0.206	6.77
MAD i	0.029	0.034	0.06	0.021	0.037	0.02	0.025	0.026	0.05	0.08	0.029	0.58
IQR i	0.046	0.048	0.156	0.031	0.061	0.059	0.050	0.053	0.070	0.119	0.044	0.801
Robust CV % i	71	28	18	31	13	150	50	37	4.5	10	22	11
Median f	0.06	0.167	0.86	0.12	0.463	0.028	0.1	0.142	1.57	1.17	0.201	7.09
Mean f	0.063	0.17	0.85	0.13	0.462	0.028	0.103	0.147	1.56	1.16	0.208	7.13
MAD f	0.022	0.031	0.046	0.02	0.028	0.013	0.02	0.024	0.02	0.075	0.029	0.39
IQR f	0.04	0.047	0.067	0.028	0.045	0.021	0.035	0.035	0.052	0.1	0.037	0.726
Robust CV % f	67	28	7.8	23	9.8	76	35	24	3.3	8.6	18	10
Outliers	3	3	4	2	3	2	2	3	2	1	2	1
Stragglers	0	0	2	0	0	3	0	0	4	0	0	1

2009-10: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	25	25	25	25	20	20	20	20	23	23	23	23
Minimum	0.192	0.181	0.61	1	0.48	0.355	0.59	0.4	0.439	0.82	0.27	0.95
Maximum	2.85	5.98	22	15	210	165	256	174	0.886	1.34	0.716	2.61
Median i	0.305	0.588	2.1	1.46	0.588	0.463	0.678	0.47	0.51	0.957	0.35	1.2
Mean i	0.509	0.79	2.87	1.97	11.1	8.67	13.4	9.16	0.534	0.984	0.37	1.25
MAD i	0.02	0.032	0.12	0.06	0.025	0.032	0.025	0.029	0.031	0.081	0.025	0.09
IQR i	0.032	0.053	0.217	0.113	0.040	0.061	0.041	0.049	0.051	0.126	0.048	0.133
Robust CV % i	10	9.1	10	7.7	6.9	13	6	10	10	13	14	11
Median f	0.3	0.589	2.1	1.46	0.59	0.46	0.673	0.464	0.51	0.95	0.341	1.18
Mean f	0.299	0.597	2.15	1.47	0.584	0.439	0.671	0.46	0.518	0.953	0.342	1.17
MAD f	0.02	0.03	0.106	0.043	0.018	0.03	0.025	0.030	0.028	0.07	0.019	0.08
IQR f	0.028	0.049	0.178	0.067	0.031	0.06	0.038	0.047	0.049	0.109	0.028	0.126
Robust CV % f	9.3	8.3	8.5	4.6	5.2	13	5.7	10	9.5	11	8.4	11
Outliers	4	3	4	6	4	1	2	2	1	1	2	1
Stragglers	0	0	0	2	1	0	0	0	0	1	1	1

2009-10: Exchangeable Al — 1M KCl (15G1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	14	14	14	14	12	12	12	12	14	14	14	14
Minimum	0.001	0.001	0.001	0.005	0.014	0.007	0.001	0.001	0.010	0.001	0.001	0.001
Maximum	0.074	0.116	0.081	0.109	0.441	0.275	0.034	0.043	0.184	0.015	0.084	0.051
Median i	0.005	0.019	0.005	0.020	0.068	0.034	0.003	0.009	0.074	0.004	0.021	0.009
Mean i	0.015	0.028	0.011	0.031	0.098	0.061	0.007	0.014	0.083	0.006	0.03	0.016
MAD i	0.003	0.012	0.004	0.003	0.032	0.014	0.002	0.005	0.026	0.003	0.014	0.007
IQR i	0.010	0.023	0.005	0.009	0.050	0.043	0.006	0.010	0.052	0.006	0.024	0.014
Robust CV % i	190	120	100	46	74	120	240	110	70	140	110	140
Median f	0.005	0.019	0.005	0.02	0.063	0.03	0.002	0.007	0.074	0.004	0.021	0.009
Mean f	0.004	0.021	0.005	0.018	0.067	0.030	0.003	0.009	0.083	0.006	0.030	0.010
MAD f	0.002	0.010	0.004	0.002	0.025	0.007	0.001	0.003	0.026	0.003	0.014	0.006
IQR f	0.003	0.015	0.004	0.004	0.047	0.013	0.002	0.006	0.052	0.006	0.024	0.008
Robust CV % f	68	81	90	23	74	43	120	78	70	140	110	95
Outliers	3	1	1	4	1	2	2	2	0	0	0	2
Stragglers	0	0	0	0	0	1	1	0	0	0	0	0

2009-10: Aluminium — Mehlich3 (18F1) mgAl/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	6	6	6	6	7	7	7	7
Minimum	9.7	2.5	3.1	3.8	1049	269	140	360	517	7.6	304	785
Maximum	1104	957	1416	1203	1706	369	346	551	1162	197	811	1500
Median i	524	772	778	843	1350	328	233	465	837	143	528	1068
Mean i	520	702	737	774	1340	318	244	452	826	109	540	1120
MAD i	42.2	71.5	268	54.5	110	26.3	47	51.5	168	54	75	197
IQR i	106	118	594	88.7	244	51.6	90.4	92.7	291	112	115	383
Robust CV % i	20	15	76	11	18	16	39	20	35	78	22	36
Median f	524	787	778	843	1350	328	233	465	837	143	528	1070
Mean f	507	802	737	831	1340	318	244	452	826	109	540	1120
MAD f	33.2	45	268	37	110	26.3	47	51.5	168	54	75	197
IQR f	68.2	91.9	594	73.5	244	51.6	90.4	92.7	291	112	115	383
Robust CV % f	13	12	76	8.7	18	16	39	20	35	78	22	36
Outliers	2	1	0	2	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Boron — Mehlich3 (18F1) mgB/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	7	7	7	7	7	7	7	7
Minimum	0.16	0.04	0.37	0.33	0.01	0.01	0.01	0.01	0.12	1.7	0.12	4.52
Maximum	13	11	10	14	3.2	2.3	2.3	1.7	1.8	3.7	1.6	9.6
Median i	0.68	0.6	0.95	1	0.66	0.56	0.88	0.49	0.61	2.3	0.39	6.8
Mean i	2.4	2.01	2.12	2.77	0.81	0.66	0.88	0.55	0.70	2.37	0.63	6.79
MAD i	0.35	0.39	0.35	0.65	0.23	0.22	0.12	0.42	0.26	0.32	0.27	1.3
IQR i	0.64	0.66	0.67	1.08	0.45	0.56	0.49	0.671	0.49	0.63	0.43	2
Robust CV % i	95	110	70	110	68	100	56	140	79	27	110	29
Median f	0.63	0.52	0.85	0.82	0.55	0.45	0.88	0.49	0.61	2.3	0.39	6.8
Mean f	0.63	0.51	0.81	0.90	0.42	0.38	0.76	0.55	0.71	2.37	0.63	6.79
MAD f	0.26	0.4	0.33	0.48	0.12	0.25	0.08	0.42	0.26	0.32	0.27	1.3
IQR f	0.48	0.62	0.54	0.80	0.46	0.5	0.31	0.67	0.48	0.63	0.43	2
Robust CV % f	76	120	63	99	84	110	35	140	79	27	110	29
Outliers	1	1	1	1	1	1	2	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Calcium — Mehlich3 (18F1) mgCa/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	7	7	7	7	7	7	7	7
Minimum	1830	2367	3630	708	6.19	398	3374	793	1591	3609	957	686
Maximum	2828	2820	4670	853	808	541	4684	1191	2800	6160	1960	1170
Median i	2148	2494	4141	786	661	463	4024	1003	2266	4858	1519	893
Mean i	2230	2510	4130	778	588	465	4010	988	2300	4880	1520	891
MAD i	150	76	363	18	67	22.3	130	82	284	1010	157	36
IQR i	402	114	578	28.2	112	37.3	277	178	553	1630	242	113
Robust CV % i	19	4.6	14	3.6	17	8.1	6.9	18	24	34	16	13
Median f	2150	2490	4140	786	688	463	4020	1000	2270	4860	1520	893
Mean f	2230	2510	4130	778	685	465	4010	988	2300	4880	1520	877
MAD f	150	76	363	18	53	22.3	130	82	284	1010	157	13
IQR f	402	114	578	28.2	102	37.3	277	178	553	1630	242	65.6
Robust CV % f	19	4.6	14	3.6	15	8.1	6.9	18	24	34	16	7.3
Outliers	0	0	0	0	1	0	0	0	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	1

2009-10: Copper — Mehlich3 (18F1) mgCu/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	7	7	7	7	7	7	7	7
Minimum	0.15	0.36	0.49	0.16	0.01	1	1.6	2.2	0.76	1.42	1.83	0.46
Maximum	2.9	2.3	5.6	2.3	2.23	1.98	2.56	2.95	2.1	3.29	5.2	1.83
Median i	1.22	1.89	3.47	1.56	0.18	1.3	1.96	2.55	1.5	2.1	3.8	0.8
Mean i	1.27	1.73	3.6	1.48	0.55	1.31	2.02	2.55	1.53	2.32	3.79	0.86
MAD i	0.43	0.27	0.58	0.36	0.13	0.15	0.34	0.15	0.31	0.39	0.38	0.20
IQR i	0.77	0.57	1.66	0.72	0.66	0.304	0.52	0.22	0.38	0.67	0.7	0.27
Robust CV % i	63	30	48	46	370	23	26	8.7	25	32	18	34
Median f	1.22	1.91	3.47	1.57	0.09	1.3	1.96	2.55	1.5	2.1	3.8	0.8
Mean f	1.27	1.93	3.6	1.48	0.13	1.31	2.02	2.55	1.53	2.32	3.79	0.86
MAD f	0.43	0.19	0.58	0.36	0.09	0.15	0.34	0.15	0.31	0.39	0.38	0.20
IQR f	0.77	0.31	1.66	0.72	0.15	0.30	0.52	0.22	0.38	0.67	0.70	0.27
Robust CV % f	63	16	48	46	170	23	26	8.7	25	32	18	34
Outliers	0	1	0	0	2	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Iron — Mehlich3 (18F1) mgFe/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	7	7	7	7	7	7	7	7
Minimum	55	138	98	162	35.5	117	48	185	204	13.9	158	35.2
Maximum	288	199	219	348	81.6	260	146	458	448	43.8	474	74.3
Median i	76.2	188	138	201	43	153	60.3	276	299	22	274	47.5
Mean i	104	180	141	217	48.6	163	75.9	299	300	24.4	286	48.5
MAD i	7.2	11	19.5	10	4	24	9	34	36	4	25	3.5
IQR i	14.8	25.3	33.4	19	11.1	37.8	31.1	88.2	92.3	7.26	43.3	4.23
Robust CV % i	19	13	24	9.4	26	25	52	32	31	33	16	8.9
Median f	74.6	188	138	201	42	153	59.9	276	299	22	274	45.8
Mean f	73.5	180	141	195	43.2	163	64.2	299	300	24.4	255	44.2
MAD f	5	11	19.5	10	3.7	24	8.15	34	36	4	19	2.25
IQR f	11.9	25.3	33.4	22.8	7.54	37.8	17.8	88.2	92.3	7.26	51.4	5.54
Robust CV % f	16	13	24	11	18	25	30	32	31	33	19	12
Outliers	1	0	0	1	1	0	1	0	0	0	1	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Magnesium — Mehlich3 (18F1) mgMg/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	7	7	7	7	7	7	7	7
Minimum	378	601	2222	67	544	55	149	303	1179	238	116	859
Maximum	1775	1640	6285	411	703	73	237	430	2150	439	252	1540
Median i	419	645	2599	76	593	64	174	370	1804	325	191	1137
Mean i	613	784	3090	125	615	63.3	179	364	1730	329	189	1150
MAD i	12	29.7	122	3.6	43.4	2.7	11.2	32	176	43	16	35
IQR i	54.1	54.6	276	18.2	59.3	7.19	20	54.9	328	66.7	25.9	58.6
Robust CV % i	13	8.5	11	24	10	11	11	15	18	21	14	5.2
Median f	408	638	2600	75.1	593	64	175	370	1800	325	191	1140
Mean f	408	641	2560	73.7	615	63.3	179	364	1730	329	189	1130
MAD f	11.2	24.4	62.3	2.7	43.4	2.7	11.2	32	176	43	16	34
IQR f	22.6	43.4	186	5.41	59.3	7.19	20	54.9	328	66.7	25.9	46.7
Robust CV % f	5.5	6.8	7.1	7.2	10	11	11	15	18	21	14	4.1
Outliers	1	1	1	1	0	0	0	0	0	0	0	2
Stragglers	1	0	0	1	0	0	0	0	0	0	0	0

2009-10: Manganese — Mehlich3 (18F1) mgMn/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	7	7	7	7	7	7	7	7
Minimum	14	19	19	22	6.5	113	52	195	198	53.3	25.1	35.7
Maximum	203	183	222	323	13	236	98.3	408	331	120	56	78.6
Median i	152	170	178	243	8.5	145	59.2	278	261	85	42	54
Mean i	143	149	168	224	8.75	156	65.4	302	251	86.6	41.9	54
MAD i	16.8	11.6	41.3	11.6	1.5	26.6	7.2	77	33	5	1.7	2.8
IQR i	27.5	35.4	56.2	29.1	2.3	41.5	19.3	88.4	42.6	10	3.48	5.93
Robust CV % i	18	21	32	12	27	29	33	32	16	12	8.3	11
Median f	157	173	178	243	8.5	145	59.2	278	261	85	42	54
Mean f	162	168	168	244	8.75	156	65.4	302	251	86.6	42.4	52.8
MAD f	14	10	41.3		1.5	26.6	7.2	77	33	4.3	1.7	2
IQR f	24.5	16.3	56.2	2.28	2.3	41.5	19.3	88.4	42.6	7.6	2.74	4.23
Robust CV % f	16	9.4	32	0.94	27	29	33	32	16	8.9	6.5	7.8
Outliers	1	1	0	2	0	0	0	0	0	2	2	2
Stragglers	0	0	0	2	0	0	0	0	0	0	0	0

2009-10: Phosphorus - ICP — Mehlich3 (18F1) mgP/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	7	7	7	7	7	7	7	7
Minimum	0.04	0.04	0.08	0.07	0.02	35	85	7.1	13.3	33.7	64.6	0.06
Maximum	40	30	70	139	1.5	55.5	136	16.3	33.8	83.9	204	6.5
Median i	30	24.9	52	123	0.4	40.3	97.6	11.7	25	54	118	1.5
Mean i	28.3	20.8	47.4	109	0.69	41.9	101	11.5	23.8	55.5	125	2.31
MAD i	4.3	2.88	10	10	0.38	4.3	6.4	1.3	2	9.6	10	1.44
IQR i	6.67	8.15	19.3	12.6	0.84	7.41	10.9	2.52	5.6	14.5	14.8	1.78
Robust CV % i	22	33	37	10	210	18	11	22	22	27	13	120
Median f	32.2	25.1	52	128	0.4	40.3	96.3	11.7	25	54	118	1.5
Mean f	33	24.2	47.4	128	0.69	41.9	94.8	11.5	23.8	55.5	122	2.31
MAD f	3.82	2.5	10	6.84	0.38	4.3	4.35	1.3	2	9.6	6	1.44
IQR f	6.86	5.37	19.3	11.7	0.84	7.41	8.36	2.52	5.6	14.5	11.3	1.78
Robust CV % f	21	21	37	9.1	210	18	8.7	22	22	27	9.5	120
Outliers	1	1	0	1	0	0	1	0	0	0	1	0
Stragglers	0	0	0	0	0	0	0	0	0	0	1	0

2009-10: Potassium — Mehlich3 (18F1) mgK/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	7	7	7	7	7	7	7	7	7	7	7	7
Minimum	97	118	647	520	192	167	244	151	122	305	92.1	315
Maximum	321	245	870	647	249	217	315	214	204	429	184	531
Median i	114	226	746	580	218	194	281	189	188	392	141	431
Mean i	144	210	762	589	217	193	278	185	177	382	142	430
MAD i	2.6	10.4	34.5	32	23	17.5	28.7	13	16	24	14	43
IQR i	13.3	30.7	108	66.2	36.5	26.3	48	28.9	33.4	51.1	28.9	69.7
Robust CV % i	12	14	14	11	17	14	17	15	18	13	21	16
Median f	114	229	746	580	218	194	281	189	188	392	141	431
Mean f	114	226	762	589	217	193	278	185	177	382	142	430
MAD f	1	8.2	34.5	32	23	17.5	28.7	13	16	24	14	43
IQR f	2.56	18.4	108	66.2	36.5	26.3	48	28.9	33.4	51.1	28.9	69.7
Robust CV % f	2.2	8	14	11	17	14	17	15	18	13	21	16
Outliers	3	1	0	0	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Sodium — Mehlich3 (18F1) mgNa/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	6	6	6	6	7	7	7	7	7	7	7	7
Minimum	5	30	166	21	95	2.5	18	30	257	217	37.6	1047
Maximum	19	49	247	38	130	28	42	56.4	379	300	66	2040
Median i	8.87	35.6	201	26.4	107	8.58	22	40.4	352	277	48.5	1635
Mean i	9.76	37.4	204	27.4	110	11.1	25.1	42.9	338	267	49.7	1600
MAD i	1.6	4.03	14.5	3.26	6.25	3.58	4	10.4	24	17	5.5	55
IQR i	4.37	8	31.1	6.77	12.8	8.3	5.86	14.8	43.7	35.6	8.9	148
Robust CV % i	49	22	15	26	12	97	27	37	12	13	18	9.1
Median f	8.87	35.6	201	26.4	107	8.58	22	40.4	352	277	48.5	1640
Mean f	9.76	37.4	204	27.4	110	11.1	25.1	42.9	338	267	49.7	1620
MAD f	1.6	4.03	14.5	3.26	6.25	3.58	4	10.4	24	17	5.5	34
IQR f	4.37	8	31.1	6.77	12.8	8.3	5.86	14.8	43.7	35.6	8.9	89.3
Robust CV % f	49	22	15	26	12	97	27	37	12	13	18	5.5
Outliers	0	0	0	0	0	0	0	0	0	0	0	2
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Sulfur — Mehlich3 (18F1) mgS/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	6	6	6	6	6	6	6	6	6	6	6	6
Minimum	13	18	17	44.8	48.2	11	16	9.1	26.3	85	32	70.3
Maximum	72	71	75	77	76	14	20.7	13	43.7	126	49.4	120
Median i	16.7	21	20	48.5	57.5	13.2	19	11.7	31.7	99.4	35.2	85
Mean i	25.4	28.9	29.6	53.3	60.4	12.6	18.8	11.3	33.2	101	37.8	89.6
MAD i	2	2.75	2.35	2.6	7.4	0.5	1.1	1.3	4	4.45	2.8	10.5
IQR i	13.2	12.9	15.6	9.86	15.7	1.89	2.09	2.84	7.67	12.5	8.34	20.9
Robust CV % i	79	61	78	20	27	14	11	24	24	13	24	25
Median f	15.4	20	19	48	57.5	13.2	19	11.7	31.7	99.4	35.2	85.1
Mean f	16.1	20.5	20.5	48.6	60.4	12.6	18.8	11.3	33.2	101	37.8	89.6
MAD f	2.4	2	2	1	7.4	0.5	1.1	1.3	4	4.45	2.8	10.5
IQR f	3.34	3.52	4.71	4.15	15.7	1.89	2.09	2.84	7.67	12.5	8.34	20.9
Robust CV % f	22	18	25	8.6	27	14	11	24	24	13	24	25
Outliers	1	1	1	1	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2009-10: Zinc— Mehlich3 (18F1) mgZn/kg

Statistical parameters	Soil sample identification and values											
	November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
	ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
No of results	8	8	8	8	7	7	7	7	7	7	7	7
Minimum	1.7	0.93	0.94	2.5	0.01	2.4	3.8	1.92	1.88	0.82	7.18	0.01
Maximum	42	43	58	16	0.43	4.6	7.5	2.86	3.65	1.81	17.1	1.53
Median i	5.06	1.63	1.70	3.1	0.23	3.33	4.93	2.43	2.8	1.3	12.3	0.16
Mean i	9.2	7.21	8.91	4.58	0.22	3.32	5.16	2.43	2.81	1.35	12.5	0.35
MAD i	0.22	0.1	0.21	0.37	0.07	0.19	0.83	0.27	0.4	0.41	1.3	0.15
IQR i	0.62	2.36	1.51	0.64	0.12	0.61	1.39	0.37	0.82	0.61	2.82	0.25
Robust CV % i	12	140	88	21	54	18	28	15	29	47	23	160
Median f	5.06	1.61	1.56	3.08	0.23	3.28	4.93	2.43	2.8	1.3	12.3	0.16
Mean f	4.98	1.61	1.53	2.95	0.22	3.11	5.16	2.43	2.81	1.35	12.5	0.16
MAD f	0.18	0.04	0.15	0.32	0.07	0.20	0.83	0.27	0.4	0.41	1.3	0.13
IQR f	0.38	0.11	0.33	0.52	0.12	0.62	1.39	0.37	0.82	0.61	2.82	0.21
Robust CV % f	7.5	6	21	17	54	19	28	15	29	47	23	130
Outliers	2	3	2	1	0	1	0	0	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

4. Comments on Measurement Performance

Detailed evaluation of measurement performance is beyond the scope of this report. Such evaluations mostly occur at ASPAC Workshops, at other national and international meetings, and in the scientific literature. However, it is appropriate to make a few brief observations.

The grand median robust % CVs across the 12 samples, after the removal of "outliers" and "stragglers", ranged from 1.85 to 81.5%. This covered the 47 tests shown in Table 1, not including those that had less than six participants per round. Table 4 provides the identity of the 10 best performed and 10 worst performed tests, with their corresponding (final) median robust % CVs, noting that for Colwell (9B), Olsen (9C) and Bray-1 extractable P (9E) tests, only pooled data (manual + autocolour finishes) rather than individual analytical finishes were considered for tabulation. Again water-soluble Cl by potentiometric titration (5A1) was less well performed than its colorimetric counterpart (5A2), but both were in the ten worst performing test list. Median concentrations of chloride were low to very low in 11 of the 12 soils which might explain why CV's were so high, as laboratories could be geared up for higher levels which are undesirable from an agronomic perspective. Similarly EC levels were low for 11 of the 12 soils. This is undesirable from a proficiency performance perspective, but it is difficult to cover ideal concentration ranges for such a large suite of tests as offered in this soil program.

As expected, pH being a logarithmic scale was the best performing test/s. Seven of the ten worst performing tests had relatively short extraction times and included six Mehlich 3 tests (5 minute shake time) and Bray P (1 minute shake time). For both Mehlich 3 and Bray soil extractions, it is important to minimize the time the soil remains in contact with extractant after the completion of shaking. Also four of these six Mehlich 3 tests were for trace elements (Cu, Zn, Fe and B).

Table 4. The 10 best performed and 10 worst performed soil chemical tests in 2009-10, based on percent robust coefficients of variation (grand medians) after the removal of "outliers" and "stragglers".

Best (Lowest Robust %CVs)	
Soil Method	***%CV***
Soil **pH**, 1:5 0.01 M $CaCl_2$ (4B1)	1.8
Soil **pH**, 1:5 0.01 M $CaCl_2$ (4B2)	1.8
Soil **pH**, 1:5 H_2O (4A1)	2.2
Exch. **Ca**, NH_4Cl (15A1)	3.7
EC, 1:5 water (3A1)	4.2
Total Org. **C** (pooled 6B1 + 6B2 +6B3)	5.4
Exch. **Mg**, NH_4Cl (15A1)	6.0
Exch. **K**, NH_4Cl (15A1)	6.5
Exch. **Mg,** NH_4OAc (15D3)	7.6
Total **N** (pooled 7A1 + 7A2)	7.9

Worst (Highest Robust %CVs)	
Soil Method	***%CV***
Meh 3 Extr. **Fe** (18F1)	21.5
Meh 3 Extr **P** (18F1)	21.5
Meh 3 Extr **Zn** (18F1)	22
Water Sol. **Cl** Auto –Color. (5A2)	22.5
Meh 3 Extr **S** (18F1)	23
Bray – 1 Extr. **P** (pooled 9E1 + 9E2)	25
Meh 3 Extr **Cu** (18F1)	29
Water Sol. **Cl** Potentiometric (5A1)	35.5
Exch. **Al** KCl (15G1)	79.5
Meh 3 Extr **B** (18F1)	81.5

Median robust CV's for the 12 soils across the 47 tests ranged from 9.4 to 14%, with a grand median final robust CV of 12.7%. These were consistent with estimates from recent programs. The data summaries in Section 3 show generally very good agreement between final median and mean values, but there are examples of large differences between the two, suggesting skewed data. This again emphasizes the importance of using medians and MADs, which are less influenced by 'rogue' results in small data sets.

Consistent with observations made in earlier annual reports, the measurement performance of exchangeable Al by method 15G1 (1M KCl extraction) worsened (as judged by final robust CVs) as soil hydrogen ion concentrations decreased. When soil pH_w (method code 4A1), exceeds 5.5, exchangeable Al concentrations will be very low and near reporting limits, thus robust CV's will be high. Not one of the 12 soils in this program had a median pH_w value less than 5.5.

Detailed evaluations of the relationships between the occurrence of outliers and stragglers vs (1) the average number of test results by test, and (2) robust CV were presented in the preceding Annual Report for 2008-09. Consistent trends would be expected for 2009-10 as robust CV's are similar and much the same tests feature in the best and worst performing categories.

Appendix 1: List of laboratories (including contact details) who participated in ASPAC's Soil ILPP in 2008-09, arranged by country

Name (position)	*Facility*	*Street and/or Postal Address*	*Country*	*Email*
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Name (position)	Facility	Street and/or Postal Address	Country	Email
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Appendix 2: Homogeneity data and statistical assessments* for Total Soil N% (Dumas N) on the 12 soils in ASPAC's 2009-10 ILPP

Sample name		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
Sample 1	replicate 1	0.121	0.254	0.080	0.138	0.068	0.115	0.061	0.107	0.342	0.035	0.216	0.111
	replicate 2	0.126	0.256	0.079	0.138	0.080	0.124	0.059	0.106	0.350	0.035	0.220	0.113
Sample 2	replicate 1	0.130	0.257	0.080	0.145	0.078	0.110	0.058	0.106	0.319	0.035	0.215	0.106
	replicate 2	0.133	0.261	0.078	0.151	0.080	0.120	0.060	0.105	0.324	0.032	0.222	0.114
Sample 3	replicate 1	0.139	0.244	0.083	0.134	0.076	0.111	0.058	0.108	0.323	0.035	0.230	0.107
	replicate 2	0.134	0.252	0.077	0.154	0.080	0.115	0.059	0.104	0.336	0.035	0.243	0.104
Sample 4	replicate 1	0.124	0.254	0.080	0.146	0.078	0.114	0.059	0.108	0.322	0.035	0.213	0.110
	replicate 2	0.128	0.253	0.076	0.150	0.080	0.115	0.058	0.110	0.319	0.033	0.243	0.098
Sample 5	replicate 1	0.135	0.260	0.079	0.148	0.076	0.115	0.061	0.110	0.324	0.038	0.215	0.113
	replicate 2	0.129	0.254	0.079	0.160	0.077	0.113	0.060	0.107	0.341	0.033	0.235	0.115
Sample 6	replicate 1	0.132	0.258	0.079	0.155	0.076	0.117	0.059	0.111	0.324	0.037	0.212	0.106
	replicate 2	0.136	0.252	0.078	0.148	0.078	0.123	0.060	0.105	0.335	0.036	0.228	0.110
Sample 7	replicate 1	0.129	0.248	0.077	0.170	0.077	0.115	0.058	0.105	0.330	0.035	0.222	0.114
	replicate 2	0.126	0.253	0.079	0.154	0.079	0.118	0.059	0.108	0.350	0.034	0.230	0.111
Sample 8	replicate 1	0.131	0.250	0.078	0.136	0.070	0.106	0.059	0.107	0.316	0.038	0.242	0.108
	replicate 2	0.129	0.253	0.076	0.144	0.079	0.109	0.060	0.106	0.330	0.035	0.241	0.104
Sample 9	replicate 1	0.130	0.247	0.079	0.154	0.072	0.115	0.060	0.111	0.324	0.035	0.215	0.109
	replicate 2	0.136	0.252	0.077	0.138	0.075	0.114	0.059	0.105	0.329	0.036	0.256	0.109
Sample 10	replicate 1	0.134	0.251	0.077	0.143	0.079	0.125	0.060	0.110	0.326	0.036	0.212	0.114
	replicate 2	0.127	0.255	0.076	0.146	0.077	0.112	0.060	0.103	0.335	0.036	0.228	0.113

Mean	0.130	0.253	0.078	0.148	0.077	0.115	0.059	0.107	0.330	0.035	0.227	0.109
Analytical SD	0.000011	0.000012	0.000006	0.000063	0.000013	0.000021	0.0000007	0.000008	0.00007	0.000003	0.00018	0.000012
Sampling SD	0.000011	0.000006	0	0.000016	0	0.000003	0.0000004	0	0.00003	0	0	0.000006
SD proficiency data	0.0148	0.0297	0.00148	0.0133	0.0242	0.0148	0.01112	0.0178	0.02669	0.00726	0.0133	0.0215
Homogeneity index	0.222	0.0833	0	0.299	0	0.1151	0.057	0	0.204	0	0	0.114
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 3 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 6 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; ie. 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" for 2.5% (two-tailed) with n-1 degrees of freedom]. 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, the relevant laboratories were rated as "stragglers" (†).

The other statistics summarised in Table 3 were calculated on the same populations of data. Only the first (1) and second (final; f) values appear in the data summaries in Section 3.

Appendix 4: "Raw" 2009-10 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.

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10 Electrical conductivity 1:5 soil-water (3A1) dS/m											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	3A1	0.13	0.088	0.13	0.192								
L006	3A1					0.114	0.086	0.156	0.07	0.19	0.255	0.137	0.785
L007	3A1	0.13	0.09	0.18 ††	0.21								
L009	3A1	0.121	0.079	0.126	0.199	0.123	0.091	0.178	0.076 †	0.198	0.288	0.146	0.8
L011	3A1	0.12	0.09	0.13	0.18	0.1 ††	0.06 †	0.14	0.05 ††	0.21	0.29	0.15	0.8
L012	3A1	0.12	0.09	0.015 ††	0.2	0.118	0.085	0.175	0.073 †	0.18	0.255	0.14	0.75
L013	3A1	2.2 †	2.09 ††	2.23 ††	2.39 †	0.13 †	0.08	0.15	0.06 ††	0.19	0.26	0.14	0.72
L014	3A1	0.13	0.14 ††	0.25 ††	0.19					0.29 ††	0.33 ††	0.17	0.98
L015	3A1	0.114	0.083	0.128	0.195	0.117	0.08	0.156	0.068	0.199	0.248	0.14	0.785
L018	3A1	0.121	0.082	0.13	0.198	0.118	0.082	0.166	0.067	0.195	0.274	0.156	0.806
L019	3A1	0.122	0.083	0.132	0.196	0.131 †	0.08	0.169	0.068	0.191	0.273	0.156	0.839
L022	3A1	0.114	0.082	0.125	0.193	0.118	0.079	0.154	0.069	0.195	0.265	0.142	0.817
L023	3A1	0.134 †	0.093	0.182 ††	0.227 †	0.107 †	0.073	0.145	0.061 ††	0.215 ††	0.282	0.155	0.843
L024	3A1					450 ††	370 †	860 ††	310 ††	220 ††	320 ††	190 ††	920
L026	3A1	0.127	0.1	0.156 †	0.18	0.117	0.079	0.157	0.068	0.206	0.253	0.146	0.805
L027	3A1	0.12	0.08	0.129	0.206	0.135 ††	0.094 †	0.172	0.071	0.209	0.293	0.165	0.843
L028	3A1	0.12	0.08	0.13	0.2	0.12	0.09	0.17	0.07	0.2	0.28	0.16	0.8
L030	3A1	0.123	0.103 †	0.164 ††	0.194	0.12	0.079	0.162	0.073 †	0.221 ††	0.273	0.156	0.831
L032	3A1	0.123	0.082	0.13	0.198	0.119	0.082	0.066 ††	0.162 ††	0.186	0.262	0.148	0.741
L035	3A1	0.08 †	0.05 ††	0.1 ††	0.13 †	0.107 †	0.066 †	0.138	0.056 ††	0.1 ††	0.16 ††	0.09 ††	0.67
L036	3A1	114 †	75.1 ††	116 ††	194 †	0.111	0.079	0.153	0.065 †	0.198	0.275	0.156	0.792
L042	3A1	0.12	0.08	0.13	0.19	0.11 †	0.08	0.15	0.07	0.19	0.28	0.15	0.84
L044	3A1	0.126	0.091	0.135	0.212	0.121	0.085	0.171	0.07	0.186	0.262	0.146	0.811
L045	3A1	0.12	0.08	0.12	0.18	0.12	0.09	0.18	0.07	0.19	0.27	0.15	0.8
L046	3A1					0.12	0.082	0.164	0.069	0.198	0.275	0.151	0.82
L055	3A1	0.128	0.089	0.134	0.201	0.118	0.082	0.179	0.068	0.2	0.313	0.154	0.843
L056	3A1	0.11 †	0.06 ††	0.12	0.18	0.116	0.082	0.16	0.068	0.191	0.266	0.142	0.8
L063	3A1	0.12	0.08	0.132	0.192	0.11 †	0.08	0.16	0.06 ††	0.2	0.3	0.1 ††	0.8
L064	3A1	0.125	0.089	0.124	0.194	0.117	0.079	0.162	0.069	0.208	0.3	0.171	0.832
L080	3A1	0.116	0.08	0.122	0.203					0.197	0.289	0.166	0.778

L133	3A1	0.169 †	0.177 ††	0.32 ††	0.297 †	0.109 †	0.081	0.16	0.069	0.193	0.028 ††	0.152	0.081
L135	3A1	0.121	0.099	0.141	0.164 †	0.116	0.068 †	0.133	0.069	0.18	0.2 ††	0.11 ††	0.64
L137	3A1	0.109 †	0.078	0.118	0.189					0.183	0.259	0.147	0.776
L139	3A1	0.109 †	0.081	0.154 †	0.178	0.135 ††	0.086	0.151	0.068	0.245 ††	0.265	0.136	0.851
L140	3A1	0.2 †	0.11 †	0.17 ††	0.24 †	0.16 ††	0.16 †	0.21 ††	0.15 ††				
L143	3A1	0.12	0.09	0.13	0.23 †	0.12	0.08	0.16	0.06 ††	0.19	0.26	0.15	0.79
L156	3A1	0.075 †	0.117 ††	0.131	0.191	0.115	0.086	0.19	0.073 †	0.186	0.292	0.16	0.846
L158	3A1	0.121	0.081	0.128	0.193	0.124	0.088	0.167	0.068	0.195	0.272	0.155	0.825
L160	3A1	0.134 †	0.093	0.146 †	0.213	0.124	0.088	0.174	0.072	0.188	0.269	0.146	0.777
L161	3A1	0.123	0.085	0.142	0.198	0.118	0.084	0.171	0.069	0.185	0.275	0.144	0.796
L162	3A1	0.118	0.082	0.129	0.188	0.119	0.082	0.163	0.067	0.2	0.28	0.158	0.831
L163	3A1					0.565 ††	0.296 †	0.668 ††	0.277 ††				
L164	3A1					0.185 ††	0.119 †	0.199 †	0.085 ††				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Soil pH, 1:5 soil-water (4A1)											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	**ASS 112**	**ASS 113**	**ASS 114**	**ASS 31**	**ASS 32**	**ASS 33**	**ASS 34**	**ASS 51**	**ASS 52**	**ASS 53**	**ASS 54**
L002	4A1	6.97	5.71	7.66	6.36	5.49	5.71	8.32	6.14	5.82	8.63	6.25	6.51
L003	4A1	7.22	5.86	7.66	6.63								
L004	4A1	6.81	6.00	7.5	6.45								
L006	4A1					5.45	5.79	8.31	6.01	5.67	8.83	6.4	6.7
L007	4A1	6.63	5.61	7.29	6.21								
L009	4A1	6.28 †	5.91	7.05	6.62	5.63	5.66	6.98 †	6.49 †	5.53	6.75 †	5.8 †	6.22 ††
L011	4A1	6.75	5.77	7.34	6.25	5.81	5.97	6.99 †	6.26	5.72	8.71	6.36	6.63
L012	4A1	6.44	5.63	7.29	6.39	5.34	5.6	7.63	5.75	5.6	8.47	6.32	6.52
L013	4A1	6.7	5.7	7.1	6.3	5.5	5.9	7.6 †	5.9	5.6	7.6 †	6.2	6.4
L014	4A1	6.63	5.88	7.31	6.67					5.16 †	7.9 †	5.99 †	6.29 ††
L015	4A1	6.82	5.64	7.29	6.26	6.26 ††	6.17	7.31 †	6.51 †	5.68	7.98 †	6.62	6.76
L017	4A1	6.91	5.75	7.58	6.37	5.52	5.96	8.08	5.99	5.88	8.45	6.41	6.75
L018	4A1	6.91	5.78	7.53	6.36	5.61	5.88	8.38	6.12	5.81	8.82	6.41	6.67
L019	4A1	6.7	5.66	7.43	6.29	5.47	5.68	8.11	6.04	5.75	8.69	6.44	6.67
L022	4A1	7.01	5.83	7.73	6.36	5.6	5.84	8.3	6.11	5.78	8.75	6.38	6.62
L023	4A1	6.7	5.56	7.45	6.36	5.57	5.87	8.52	6.14	5.66	8.87	6.3	6.56
L024	4A1					6.8 ††	6.3 †	7.7	6.6 ††	5.9	8.4	5.9 †	6.7
L026	4A1	7.08	5.87	7.74	6.47	5.61	5.86	8.44	6.17	5.8	8.89	6.41	6.69
L027	4A1	6.9	5.8	7.4	6.5	5.6	5.9	8	6.3	5.8	8.6	6.5	6.7
L028	4A1	7	5.6	7.4	6.2	5.1 ††	5.4 †	8.2	5.7 †	5.7	8.8	6.4	6.6
L029	4A1	6.88	5.49	7.063	6.21					5.7	8.6	6.27	6.54
L030	4A1	6.84	5.63	7.54	6.07	5.36	5.55	8.03	5.87	5.69	8.65	6.29	6.57

L032	4A1	7.15	5.97	7.77	6.54	5.66	6.01	6.21 †	8.46 ††	5.81	8.78	6.49	6.66
L035	4A1	5.7 †	5.4	6.9	5.7 †	5.6	6.3 †	7.8	5.2 ††	5.4 †	9.1	6.2	6.3 ††
L036	4A1	7.14	6.03	7.95	6.64	5.62	5.77	8.46	6.06	5.73	8.98	6.3	6.55
L042	4A1	7	6.06	7.68	6.76 †	5.87 †	6.01	8.19	6.51 †	6	8.46	6.57	6.78
L044	4A1	6.58	5.76	7.48	6.21	5.76	5.88	8.11	6.19	5.9	8.6	6.4	7.1 ††
L045	4A1	7.3	6	7.5	6.7	5.6	5.8	8.1	6.3	5.98	8.77	6.61	6.72
L046	4A1					5.64	5.88	8.29	6.18	5.94	8.78	6.46	6.76
L055	4A1	6.94	5.76	7.67	6.34	5.67	5.85	7.98	6.24	5.75	8.23	6.43	6.82
L056	4A1	7.23	5.85	7.63	6.44	5.56	5.85	8.36	6.15	5.77	8.88	6.47	6.7
L063	4A1	6.9	5.8	7.62	6.37	5.5	5.8	8.2	6	5.8	8.8	6.4	6.7
L080	4A1	7.23	6.05	7.1	6.57					6.34 †	8.05 †	6.72	6.84
L091	4A1	5.75 †	5.29	4.95 †	5.11 †								
L133	4A1	6.4	5.6	6.9	6.3	5.5	5.7	8.3	6.1	5.6	8.6	6.6	6.9
L135	4A1	6.9	5.71	7.49	6.32	5.61	5.67	7.92	5.86	5.82	8.68	6.36	6.53
L137	4A1	6.88	5.91	7.44	6.84 †					5.64	8.6	6.27	6.48
L139	4A1	6.8	5.69	7.56	6.33	5.45	5.81	8.13	6.03	5.6	8.61	6.3	6.54
L140	4A1	7	6.1	7.5	6.6	5.3 †	5.7	8.1	6	5.8	8.6	6.4	6.6
L142	4A1	6.52	5.39	7.12	6.06	5.4	5.6	7.3 †	6	5.3 †	8.3	6.1	6.2 ††
L143	4A1	7.08	5.92	7.85	6.43	6.55 ††	6.08	8.03	6.83 ††	5.9	8.78	6.58	6.82
L156	4A1	5.83 †	6.75 †	7.37	6.29	5.96 ††	6.23 †	7.13 †	6.14	5.86	8.55	6.27	6.54
L158	4A1	7.02	5.88	7.8	6.44	5.58	5.89	8.43	6.18	5.65	8.81	6.42	6.66
L160	4A1	6.9	5.8	7.6	6.4	5.5	5.8	8.3	6	5.7	8.8	6.3	6.6
L161	4A1	6.76	5.7	7.39	6.33	5.53	5.76	8.16	6.09	5.7	8.54	6.28	6.55
L162	4A1	6.72	5.56	7.36	6.17	5.45	5.66	8.16	5.92	5.76	8.74	6.39	6.62
L163	4A1	6.63	5.43	7.28	6.14	5.1 ††	5.7	6.8 †	6.4	5.5	8 †	6.3	6.6
L164	4A1					5.13 ††	5.62	8.16	5.76				
L900	4A1					5.31 †	5.45	7.49 †	5.73				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Soil pH, soil-0.01 M $CaCl_2$ — direct (4B1)																							
		November 2009 (Round 209)								March 2010 (Round 409)								May 2010 (Round 609)							
		ASS 111		ASS 112		ASS 113		ASS 114		ASS 31		ASS 32		ASS 33		ASS 34		ASS 51		ASS 52		ASS 53		ASS 54	
L003	4B1	6.87 †		5.2	4.85	7.14	4.61 ††	5.51 †	7.61		6.02 †		5.76		5.50		4.69	8.37		5.74		5.16		5.00	5.42
L004	4B1	6.845		5.08	4.98	6.64	4.78	5.473	7.81		6.27									5.65		5.09 †		4.93	5.32
L006	4B1									5.01		4.97		7.45		5.13		5		7.84		5.58		5.94	
L009	4B1	5.75 †		5.24		6.33		5.3		5.04		5.03		6.21 †		5.37		4.69 †		5.89		4.89 †		5.52 ††	
L013	4B1	6.28		5	4.90	6.7	4.60	5.4	7.50	5	6.20	5	5.60	7.2	5.50	5.1	4.60	4.9	8.40	7.5	5.60	5.7	5.00 ††	4.8	5.30
L014	4B1	6.47		5.13		6.73		5.52										5.06		7.03		5.78		5.81	
L019	4B1	6.01		5.07		6.37		5.53		4.9 †		4.92		6.81		5.26		5.05		7.51		5.75		5.91	
L028	4B1	6.3		5.1	5.03	6.8	4.83	5.4	7.85	5	6.21	4.9		7.4		5.1									
L003	4B1	L004	4B1	L009	4B1	L013	4B1	L014	4B1	L019	4B1	L028	4B1	L032	4B1	L041	4B1	L042	4B1	L044	4B1	L055	4B1	L060	4B1
L003	4B1																								
L004	4B1																								
L006	4B1																								
L009	4B1																								
L013	4B1																								
L014	4B1																								
L019	4B1																								
L028	4B1																								
L032	4B1																								
L041	4B1	4.93		4.64 ††		7.56		6.08		5.54		5.34		4.51		8.57		5.62		5.03 ††		4.83 †		5.33	
L042	4B1	5.06		4.80		7.70		6.23		5.80		5.60		4.80		8.50									
L044	4B1	4.96		4.68 †		7.62		6.00 ††		5.64		5.53		4.73		8.32		5.71		5.18		5.01		5.44	
L055	4B1	4.99		4.79		7.82		6.25		5.77		5.58		4.68		8.25		5.71		5.19		5.02		5.39	
L060	4B1	5.08		4.72		7.40		5.97 ††		5.77		5.55		4.67		8.09		5.71		5.17		5.02		5.33	

L029	4B1	6.2733	5.01	6.76	5.42					4.93	7.94	5.65	5.92
L036	4B1	6.2	5.14	6.95	5.64 †								
L041	4B1	6.19	5.01	6.7	5.41	4.99	4.84	7.2	5.22	4.92	7.5	5.65	5.88
L042	4B1	6.37	5.12	6.84	5.69 †								
L044	4B1	6.09	5.07	6.57	5.64 †	5.01	4.98	7.04	5.1	5.1	7.1	5.7	5.9
L055	4B1	6.32	5.03	6.9	5.4	4.98	4.98	7.38	5.3	5.09	7.58	5.77	6.01
L064	4B1	6.32	5.03	6.82	5.43								
L137	4B1	5.68 †	5.4 †	6.5	6.15 †					5.01	7.01	5.83	5.73
L158	4B1	6.45	5.04	6.89	5.4	5.04	4.94	7.54	5.18	5.01	7.88	5.63	5.99
L162	4B1	6.16	5.07	6.64	5.48	4.98	4.89	7.27	5.12	5	7.7	5.55	5.97

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10:Soil pH, 1:5 soil-0.01 M $CaCl_2$ - indirect (4B2) air dry																							
		November 2009 (Round 209)								*March 2010 (Round 409)*								*May 2010 (Round 609)*							
		ASS 11 1		ASS 11 2		ASS 11 3		ASS 11 4		ASS 31		ASS 32		ASS 33		ASS 34		ASS 51		ASS 52		ASS 53		ASS 54	
L007	4B2	5.8	††	5.04		6.47		5.5																	
L009	4B2	5.17	††	5.03		5.97	††	5.58		5.07		5		6.31	††	5.25		4.74		6.07	††	5	††	5.58	††
L011	4B2	6.21		5.15		6.49		5.66		5.55	††	5.46	††	6.14	††	5.68	††	4.86		8.05		5.76		5.79	
L013	4B2	6.3		5		6.7		5.4		5		5		7.2		5.1		4.9		7.1		5.7		6.2	
L014	4B2	6.22		4.96		6.56		5.38										4.73		7.61		5.42		5.67	††
L018	4B2	6.32		4.99		6.83		5.38		5.05		5.01		7.79		5.16		5.08		8.12		5.66		6.01	
L019	4B2	5.98	†	5.07		6.43		5.5		4.93		4.89	††	6.93	†	5.23		5.07		7.61		5.7		5.89	
L022	4B2	6.37		5.03		6.89		5.42		5.07		5		7.67		5.18		5		7.97		5.6		5.91	
L023	4B2	6.14		4.81	††	6.65		5.34		5.03		5.02		7.82		5.19		5.01		8.22		5.61		5.96	
L026	4B2	6.41		5.05		6.91		5.47		5.13		5.02		7.91		5.22		5.04		8.25		5.62		6.03	
L027	4B2	5.3	††	5.1		6.6		5.6		5		4.9	††	7.4		5.1		5		7.1		5.7		5.9	
L029	4B2	6.05		4.82	††	6.56		5.22										4.67		7.68		5.23	††	5.62	††
L030	4B2	6.39		5.06		6.91		5.47		5.14		4.99		7.72		5.2		5		8.11		5.61		5.97	
L032	4B2	6.41		5.07		6.86		5.49		5.06		5.01		5.15	††	7.78	††	4.98		8.07		5.6		5.94	
L036	4B2									4.88		4.76	††	7.86		4.97	††	4.99		8.28		5.65		5.92	
L042	4B2									5.16		5.02		7.52		5.2		5.11		7.84		5.71		6.03	
L044	4B2									5.22	†	5.11	††	7.51		5.45	††								
L045	4B2	6.8	††	5.2		6.7		5.7		5		5.1	††	7.5		5.3		5.13		8.03		5.82		6.02	
L046	4B2									5.09		4.99		7.73		5.17		5.1		8.11		5.67		6.07	
L055	4B2	6.32		5.03		6.88		5.43		5.03		5.01		7.41		5.28		5.08		7.63		5.72		6.01	
L056	4B2	6.31		5.11		6.74		5.53		5.02		5.06	†	7.7		5.22		5.16		8.08		5.8		6.06	
L063	4B2	6.35		5.12		6.9		5.57		5		5		7.6		5.2		5.1		7.3		5.7		5.9	
L064	4B2									5.05		5.02		7.54		5.19		5.02		7.64		5.55		5.97	

L133	4B2	6		5.4	††	6.2		5.5		5		4.9	††	7.4		5.4	††	4.9		8		5.7		5.9	
L135	4B2	6.43		5.05		6.87		5.45		4.94		4.96	†	7.3		5.17		4.94		7.78		5.68		5.88	
L139	4B2	6.4		4.96		6.81		5.63		5.07		5.23	††	7.7		5.25		5.2		8.23		5.92		6.12	
L140	4B2	6.4		5.4	††	6.9		5.7																	
L143	4B2	6.38		5.1		6.85		5.61		5.39	††	5.25	††	7.58		5.39	††	4.91		8.27		5.76		6.1	
L161	4B2	5.89	††	5.49	††	6.32		5.56		5.1		5.01		7.34		5.32		5		7.23		5.48		5.86	
L164	4B2									4.97		4.96	†	7.68		5.18									

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: : Water soluble Cl — potentiometric (5A1) and autocolour (5A2) mg Cl/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	5A1	11	14	28 †	46								
L006	5A1					118	19.4 †	38.6	25.2	87.8	45.1	47.2	1170 †
L009	5A1	21.1 †	15.6	15.3	15	141 †	44 †	66.9 †	52.8 †	75.7	49.3	35.2	931
L011	5A1	4.9	10.1	10.4	45	94	0.971	16	5.7	75	30	37	875
L013	5A1	3	5	10	28	84	5	20	10	54	14	26	789
L018	5A1	1.7	4.15	4.97	26.1	60.3	6.12	18.3	8.19	67.1	37.4	29.4	853
L022	5A1	6.8	9.7	11.2	36.5	95.1	6.6	23.2	12.5	67.4	31	32.1	901
L023	5A1	2.46	7.16	9.37	32.7	89.2	4.73	21	12	71.8	28.1	29.8	856
L027	5A1	80 †	50 †	40 †	60	300 †	160 †	120 †	180 †	260 †	50	160 †	900
L032	5A1	4.1	8.6	9.3	33	76	7.7	12	20	63	28	31	885
L036	5A1	4.7	9.47	10.4	36.1								
L044	5A1	2.5	8.5	11	38								
L045	5A1										42.5		1020
L055	5A1	2.2	10	12	36	90	4.4	22	12	68	32	30	902
L064	5A1	8.6	12.6	18.5	40.4	132	9.05	49.2 †	14.4	84	53.4	44.5	1081
L080	5A1	6.6	10.3	14	35.7					81	39.5	23.4	1260 †
L091	5A1	3.9	1.4		33.8								
L133	5A1	0.658	4.9	6.1	27	62	3.71	41	5.86	62	19	17	1024
L135	5A1	13.5	18.1	13.5	21.73	71.5	13.6	13.7	9.3	36.5	18.6	18.1	328.3 †
L137	5A1	7.1	3.5	14	18					17 †	17	10	780
L140	5A1	11	28 †	17	190 †	99	12	26	12	66	28	58 †	980
L160	5A1	2	10	12	40	80	4	20	6	60	25	23	910
L161	5A1	8	13	19	50	92	11.6	35	17	60	37	24	806
L019	5A2	5.8	14	18	36	97	6.3	22	17	58	29	29	955
L026	5A2	7.09	10.4	9.33	39.99	85.05	6.2	25.5	15.9	89.55	12.12	30.04	22.67 †
L028	5A2	10	10	20	36	86	23 †	32	22	66	39	41 †	1010
L030	5A2	4.21	5.46	1.46	30	89.3	2.03	21.8	11.7	64	33	36 †	866

L036	5A2					79.6	5.01	20.1	9.35	64.5	28.3	29.5	893
L045	5A2	17.7	38.8 †	44.4	76.5 †								
L139	5A2	8.6	16	44	34	67	19 †	25	39	60	38	29	865
L143	5A2	17	29	28	78 †	88	27 †	30	23	83	45	41 †	915
L162	5A2	1.8	7.2	9.2	35	98	5.6	24	11	70	30	30	915

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Organic Carbon — Walkley and Black (6A1)											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	6A1	1.68	3.32	0.71	1.92	1.03	1.61	0.68 †	1.64	2.63	0.76 †	4.11 †	1.15
L003	6A1									2.48	0.66 †	3.36	1.18
L004	6A1	1.8	3.19	0.83	1.95								
L006	6A1					0.81	1.19	0.44	1.38	2.57	0.38	3.03	1.12
L007	6A1	2.13 †	3.64	1.08 †	2.28 †								
L009	6A1	1.62	3.77	0.71	1.73	0.70	0.84 †	0.17 †	1.09	2.87	0.33	3.14	1.07
L011	6A1	1.62	2.92	0.81	1.57	0.90	1.31	0.45	1.45	1.95 †	0.31	2.37	0.91
L012	6A1	1.75	4.04 †	0.91	1.93	1.05	1.5	0.60	1.64	2.73	0.42	3.23	1.15
L013	6A1					0.9	1.4	0.6	1.5	2.8	1.2 †	3.2	1.4 ††
L014	6A1	2.6 †	4.1 †	2.4 †	2.4 †					3.77 †	2.73 †	3.9	2.64 ††
L015	6A1									2.67	0.32	3.06	1.06
L017	6A1	1.77	3.39	1.01	1.82	1.21	1.54	0.7 †	1.64	3.61 †	0.63 †	3.31	1.49 ††
L018	6A1	1.49	3.1	0.80	1.61	0.91	1.21	0.46	1.33	2.55	0.35	2.89	1.01
L019	6A1									2.66	0.63 †	3.34	1.17
L022	6A1	1.57	3.3	0.87	1.69	0.9	1.32	0.5	1.51	2.72	0.37	2.84	1.1
L023	6A1	1.73	2.96	1.05	1.84	1.05	1.3	0.49	1.53	2.55	0.45	3.07	1.04
L024	6A1					4.7 ††	6.7 †	3.2 †	8.1 ††	3.6 †	0.7 †	4.1 †	1.4 ††
L026	6A1	1.6	3.13	0.83	1.55	0.88	1.22	0.50	1.47	2.64	0.32	2.73	1.04
L028	6A1	1.61	2.99	0.82	1.74	0.96	1.38	0.55	1.53	2.64	0.37	3.19	1.07
L029	6A1									3.34 †	0.38	3.78	1.16
L030	6A1	2.17 †	3.57	1.15 †	2.15	1.03	1.29	1.26 †	1.66	2.99	0.64 †	3.61	1.33
L032	6A1					1.04	1.47	1.97 †	0.53 ††	3.34 †	0.58	3.53	1.18
L035	6A1	2.44 †	3.66	0.91	2.09	1.2	1.52	0.44	1.24	2.9	0.45	2.98	1.22
L044	6A1					0.97	1.35	1.62 †	1.59				
L056	6A1	1.73	3.28	0.92	1.71	0.91	1.12	0.49	1.46	2.62	0.34	3.09	1.1
L064	6A1	1.53	3.42	0.79	1.88	1.16	1.6	0.51	1.92	2.76	0.13 †	3.29	1.03
L080	6A1	1.55	2.7	1.27 †	1.34 †					2.1 †	0.27	2.38	0.87
L135	6A1	1.45	3.11	0.82	1.78	0.96	1.25	0.51	1.38	2.53	0.44	2.46	1.63 ††
L137	6A1	1.62	3.13	0.98	1.88					2.39	0.46	2.85	1.11
L139	6A1	1.88	4.22 †	2.18 †	2.01	2.41 ††	1.42	0.80 †	1.9	2.68	0.64 †	3.04	0.96

L142	6A1	2.61 †	3.6	0.8	2.31 †	1.06	1.43	0.49	1.54	3	0.37	3	1.1
L143	6A1	1.57	3.02	0.89	1.79	0.91	1.28	0.54	1.32				
L158	6A1	1.59	2.93	0.88	1.78	0.92	1.35	0.55	1.51	2.72	0.35	2.94	1.08
L160	6A1	1.5	3.05	0.85	1.5	0.82	1.21	0.50	1.32	2.5	0.29	2.88	1.01
L161	6A1	1.48	2.92	0.86	1.78	0.87	1.21	0.44	1.47	2.36	0.38	2.29	1.06
L162	6A1	1.63	3.12	0.86	1.71	0.96	1.3	0.50	1.5	2.75	0.31	3.38	1.16
L164	6A1					0.91	1.21	0.48	1.4				
L900	6A1					1.05	1.3	0.63	1.75				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Total Organic Carbon — 6B1 + 6B2 + 6B3											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 61	ASS 62	ASS 63	ASS 64	ASS 91	ASS 92	ASS 93	ASS 94	ASS 21	ASS 22	ASS 23	ASS 24
L006	6B1					1.18	2.42 †	0.78 †	1.74		0.33	3.15	0.86 †
L009	6B3	1.68 †	3.5	0.85	1.68	0.70 †	0.92 †	0.186 †	1.21 †	3.03	0.49	3.4	1.25
L013	6B2	1.9	4.1	1	2.1	1.1	1.4	0.6	1.7	3.52			
L015	6B3	1.69 †	3.57	0.79 †	2.01	1.1	1.38	0.65	1.65		0.67	3.16	1.27
L015	6B1	1.73	3.32	0.96	1.91	1.08	1.44	0.56	1.58	2.77	0.44	3.41	1.16 †
L019	6B3	1.87	3.95	0.99	1.96	0.97	1.33	0.52	1.62	3.25	0.25	2.92	0.89 †
L022	6B3	1.78	3.62	0.95	1.94	1.02	1.42	0.61	1.64	3.1	0.67	3.59	1.23
L023	6B1	1.95	3.63	1.09	1.8	1.04	1.44	0.54	1.67	2.97	0.64	3.58	1.23
L027	6B3	1.34 †	2.77 †	0.78 †	1.22 †		0.85 †	0.32 †	1.16 †	2.9	0.37	3.59	1.24
L028	6B3					1.06	1.36	0.7	1.66	3.39	0.66	3.73	1.27
L028	6B1					0.96	1.62	0.5	1.51		0.47	3.47	1.25
L030	6B3	1.87	3.87	0.95	2.07	1.1	1.37	0.63	1.63	3.42			
L032	6B3	1.84	3.7	0.96	2.12	1.09	1.38	1.6 †	0.51 †	3.36	0.69	3.87	1.3
L036	6B3	2.1 †	4.73 †	1.06	1.73	1.09	1.41	0.68	1.87 †	3.29	0.4	3.3	1.2
L042	6B3	1.82	3.79	0.98	2.14	1.11	1.36	0.59	1.66	3.3			
L045	6B3	1.85	3.79	1.03	1.9						0.5	3.1	1.3
L045	6B1	1.6	3.49	0.79	1.52	1.03	1.27	0.56	1.46	3.44	0.3	2.8	1.27
L046	6B3	1.85	3.83	1.03	1.94	0.99	1.27 †	0.60	1.56	3.28	0.62	3.43	1.25
L063	6B3					1.11	1.36	0.73	1.63	3.3	0.47	3.56	1.33
L135	6B3	0.14 †	0.24 †	0.07 †	0.12 †						0.66	3.39	1.3
L140	6B3	1.71 †	3.14 †	0.75 †	1.5	1.2	1.7 †	0.6	1.7	2.9			
L143	6B3	1.86	3.85	1.04	1.91					2.83	0.38	3.29	1.23
L156	6B3	0.27 †	0.16 †	0.08 †	0.17 †	1.13	1.36	0.64	1.68	3.46	0.43	3.54	1.14
L158	6B3	1.86	3.93	0.98	1.83	1.14	1.45	0.63	1.63	3.78			
L158	6B1	1.86	3.76	1.07	1.92	1.13	1.49	0.59	1.68	3.17	0.4	3.71	1.28
L163	6B3	1.97 †	3.95	1	2.09	1.23	1.41	0.63	1.64	3.45	0.4	3.68	1.24

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Total N — Kjeldahl, steam distillation (7A1) + autocolour (7A2) - part pool%N											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	7A1	0.16	0.26	0.07	0.16	0.08	0.14 †	0.067	0.126				
L003	7A1									0.321	0.07 †	0.237	0.136 †
L006	7A1					0.07	0.106	0.052	0.104	0.291	0.034	0.193	0.096
L007	7A1	0.16	0.27	0.07	0.15								
L011	7A1	0.14	0.23	0.05 †	0.14	0.092	0.128	0.069	0.111	0.308	0.038	0.227	0.114
L012	7A1	0.15	0.25	0.07	0.16	0.08	0.116	0.063	0.108	0.297	0.045	0.224	0.103
L013	7A1	0.16	0.28	0.08	0.17	0.08	0.12	0.06	0.12	0.36	0.04	0.24	0.11
L014	7A1	0.15	0.24	0.08	0.12					0.302	0.373 †	0.625 †	0.747 †
L017	7A1	0.17	0.24	0.74 †	0.16	0.09	0.119	0.066	0.112	0.35	0.037	0.32 †	0.099
L019	7A1	0.16	0.27	0.08	0.15					0.341	0.041	0.225	0.119
L022	7A1	0.15	0.27	0.08	0.16	0.1	0.121	0.07	0.121	0.34	0.04	0.245	0.111
L023	7A1	0.16	0.27	0.08	0.17	0.084	0.124	0.074	0.122	0.302	0.04	0.236	0.1
L024	7A1					0.07	0.11	0.06	0.11	0.3	0.05	0.23	0.1
L026	7A1	0.14	0.24	0.05 †	0.14	0.10	0.115	0.071	0.117	0.295	0.043	0.22	0.102
L027	7A1	0.16	0.24	0.10 †	0.07 †	0.099	0.1	0.066	0.132	0.306	0.04	0.208	0.104
L028	7A1	0.15	0.27	0.07	0.16	0.08	0.11	0.06	0.11				
L029	7A1	0.14	0.23	0.07	0.135					0.344	0.048	0.223	0.101
L032	7A1	0.16	0.27	0.08	0.18	0.092	0.125	0.119 †	0.070 †	0.343	0.047	0.259	0.119
L035	7A1	0.2 †	0.3	0.5 †	0.14	0.1	0.12		0.09 †	0.32	0.04	0.21	0.09
L044	7A1	0.13	0.25	0.08	0.17	0.086	0.117	0.067	0.116	0.313	0.044	0.241	0.104
L046	7A1	0.15	0.26	0.08	0.152								
L064	7A1	0.15	0.25	0.07	0.16	0.08	0.109	0.072	0.12	0.422 †	0.054	0.249	0.09
L133	7A1	0.05 †	0.06 †	0.01 †	0.066 †	0.013 †	0.044 †	0.013 †	0.023 †				
L137	7A1	0.17	0.27	0.08	0.16					0.298	0.046	0.225	0.09
L139	7A1	0.18	0.29	0.09	0.19	0.111 †	0.141 †	0.086	0.132	0.384	0.095 †	0.31 †	0.157 †
L140	7A1	0.16	0.2 †	0.09	0.17	0.084	0.12	0.07	0.11	0.32	0.058 †	0.25	0.102
L142	7A1	0.19 †	0.29	0.1	0.17	0.08	0.11	0.06	0.11	0.31	0.04	0.25	0.1
L156	7A1					0.09	0.122	0.067	0.121				
L158	7A1	0.16	0.27	0.08	0.16	0.093	0.126	0.066	0.117	0.362	0.044	0.248	0.116
L160	7A1					0.095	0.122	0.061	0.122	0.324	0.054	0.243	0.122
L161	7A1	0.13 †	0.22	0.08	0.16	0.078	0.118	0.035 †	0.114				
L900	7A1					0.074	0.106	0.057	0.104				
L015	7A2									0.272	0.05	0.219	0.12
L018	7A2	0.16	0.26	0.08	0.16	0.089	0.106	0.066	0.113	0.324	0.046	0.244	0.106
L028	7A2									0.32	0.04	0.26	0.09
L055	7A2	0.15	0.24	0.07	0.17	0.08	0.11	0.063	0.11	0.305	0.041	0.211	0.103

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Total N – Dumas (7A5) %N											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	7A5	0.16	0.29	0.08	0.167	0.13	0.155	0.093	0.145	0.343	0.056	0.257	0.127
L015	7A5	0.137	0.21	0.05 †	0.171	0.093	0.122	0.069	0.126				
L019	7A5					0.08	0.114	0.056	0.108				
L023	7A5	0.161	0.27	0.08	0.204	0.076	0.122	0.068	0.122	0.321	0.040	0.321 †	0.094
L028	7A5	0.17	0.27	0.05 †	0.18	0.1	0.12	0.07	0.13	0.32	0.02	0.27	0.08
L030	7A5	0.151	0.26	0.07 †	0.164	0.061	0.091	0.042	0.08	0.323	0.036	0.24	0.098
L036	7A5	0.174	0.29	0.07	0.164	0.082	0.137	0.068	0.119	0.361	0.046	0.258	0.115
L042	7A5	0.16	0.27	0.08	0.18	0.08	0.12	0.06	0.12	0.33	0.04	0.24	0.11
L045	7A5	0.14	0.24	0.12 †	0.13	0.15	0.14	0.1 †	0.15	0.35	0.09 †	0.29	0.14
L046	7A5					0.082	0.11	0.058	0.116	0.319	0.029	0.241	0.084
L063	7A5					0.08	0.1	0.04	0.1	0.3	0.02	0.2	0.1
L097	7A5	0.17	0.27	0.08 †	0.193	0.099	0.143	0.072	0.135	0.353	0.059	0.268	0.118
L135	7A5					0.099	0.083	0.031	0.094	0.354	0.041	0.558 †	0.589 †
L143	7A5	0.115	0.20	0.03 †	0.169	0.03	0.12	0.03	0.08				
L156	7A5	3.88 †	1.85 †	1.01 †	1.95 †					0.349	0.044	0.249	0.113
L163	7A5	0.16	0.29	0.08	0.18	0.104	0.124	0.064	0.123	0.367	0.044	0.249	0.132

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Water Soluble Nitrate N— autocolour (7B1) mg N/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	7B1	35	1.9	7.3	14								
L006	7B1					21.2	10.5	29.8	3.56	46.5	11.2	4.42	52.8
L011	7B1	43	3	9.2	16	18	8.9	25	8.3 †	37	12	6.7	41
L013	7B1	37.2	2.2	6.5	15.6	19.7	9.4	28.1	4.2	42.6	11.1	3.5	42.6
L026	7B1	35.9	0.34	5.58	9.52	17.6	8.48	24.8	2.8	17.6 †	8.5	24.9 †	2.8 †
L027	7B1	59.5 †	1.26	9.97	13.8	27.1 †	12.4 †	38.8 †	4.77	42.7	10	3.2	44.5
L028	7B1	29	1	6	9	19	9	27	3	44	11	4	46
L045	7B1	41.3	0.03	6.87	9.29	18.7	9	27.8	3.1	40	8.8	1.7	42.2
L055	7B1	38	0.85	6.5	9.9	18	8.9	26	3.5	39	9	2.5	41
L064	7B1	35.7	4.62 †	8.1	12.1	17.8	12 †	28.8	5	38	9.85	9.7 †	37.8

L080	7B1	39.8	1.71	6.1	9.7					40.6	10.5	3.44	42.3
L133	7B1	38	0.47	6.7	10	19.8	8.53	27.8	1.98				
L135	7B1									39.1	7.85	3.4	33
L139	7B1	44	0.37	7.26	10	15	8.6	28	3.6	34	11	1.8	39
L140	7B1	44	3.5	11 †	15	32 †	14 †	29	5.7	22 †	8	1	34
L160	7B1	40	1.2	7.6	11	19	9	28	2.5	39	9.5	2.7	42
L161	7B1	37	1.2	7.8	11.9	25 †	10.9	35.4 †	4.25	34	9.7	4.4	46

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: KCl Extractable Nitrate N — autocolour (7C2) mgN/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	7C2	34.8	2.55 †	11.4 †	14.9 †	15.2 †	11	22.6	5.32 †	38.2	11.9	8.75 †	37.9
L011	7C2	37	4 †	11 †	15 †	24 †	8.2	25	3.5	39	12	5.6 †	43
L013	7C2	39.1	1.3	7.1	10.7	18.8	9.6	27.5	3	37.1	10.3	3.1	41.5
L015	7C2	37.7	0.44	6.06	9.61	18	8.12	25	2.51	36.6	9.37	2.35	37.7
L018	7C2	39.8	0.92	6.7	10.2	19.5	9.84	27	3.81	40.6	11	2.7	37.6
L019	7C2	38	0.67	6.5	10	20	7.7	26	3	41	12	3.5	45 †
L022	7C2	37.7	0.94	7.1	10.2	19.5	9.9	26.7	4	38.9	10.7	3.2	41.2
L023	7C2	38.9	0.81	6.76	9.36	19.5	8.42	26.1	2.94	37	9.45	2.76	38.3
L028	7C2	32	1	3 †	4 †	18	7	24	1 †	35	11	4	37
L030	7C2					18.8	8.67	25.5	3.05	37	9.81	2.72	39
L032	7C2	38	0.88	7	9.6	19.1	8.86	2.92 †	26.1 †	36	9.3	2.5	38
L036	7C2	34.4	0.48	5.98	8.56	18.6	8.83	25.2	3.17	34.6	8.98	2.96	37.1
L042	7C2	38.3	0.9	6.9	10.2	19.5	8.8	26.8	3.1	38.6	9.9	3.3	40.7
L044	7C2	34	4 †	6	10	18	8.6	25	2 †	19.2 †	2.33 †	0.1 †	16.7 †
L046	7C2					18.9	9.61	25.3	3.16				
L055	7C2	36	0.85	6.2	8.9	19	8.7	26	3.4	36	8.7	2.5	37
L097	7C2	39	0.66	6.7	9	20	9.4	27	3.6	37	9.6	2.8	39
L137	7C2	36	2.8 †	5.6	11					49 †	17 †	24 †	37
L158	7C2					19	9.3	26	3.3				
L162	7C2	37	0.5	6.9	10	21	9.3	28	2.9	38	11	1.9	39
L163	7C2	40	0.98	7.3	11	10 †	27 †	3.05 †	0.16 †	39	11	3.04	42

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: KCl Ext. Ammonium N — autocolour (7C2) mgN/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	7C2	16.9 †	23.4 †	11.7 †	46.8	8.51 †	57.9 †	11 †	24.1 †	9.1 †	4.68	65.7 †	1.3 †
L011	7C2	22	42	9.9 †	60	24	39	6.4	312 †	102	5.8	92	12
L013	7C2	25.4	45.1	12.9	64.3	24.1	38.9	7.1	52.9	97.2	6.7	99	11.2
L015	7C2	25.6	44.7	13.3	58.7	22.4	36.9	5.76	49.7	104	4.98	105	8.32 †
L018	7C2	25.4	44.6	12.8	58.5	21.2	35.9	7.15	49.3	101	6.45	104	11
L019	7C2	15 †	23 †	3.3 †	50	11 †	30	5.1	35 †	49 †	7	110	6.7 †
L022	7C2	24.5	44.1	13.4	60.1	20.7	34.6	6.2	47.6	104	5.8	108	10.5
L023	7C2	22.1	42.6	12.9	68.6	21.5	34.6	5.75	49.9	108	6.29	109	10.8
L026	7C2	25.2	43.6	12.6	57.7	21.2	35.9	6.6	48.8	92.6	6.2	97.5	10.8
L028	7C2	24	48	13	63	34 †	54 †	16 †	63 †	92	3 †	83 †	11
L030	7C2					19.2	32.6	6.04	46.1	105	6.16	107	11
L032	7C2	27	47	14 †	64	24	41	58 †	7.1 †	101	5.5	100	9.7
L036	7C2	24	42.5	13.2	70	20.3	34.3	6.09	46	105	5.84	103	11.5
L042	7C2	26.1	46.4	13.2	61.5	23.5	34.9	9 †	54.1	104	5.6	104	12.7 †
L044	7C2	17 †	33 †	9 †	46	22	39	5.2	55	125 †	0.1 †	123	0.1 †
L045	7C2					17.9	35.5	5.2	33 †				
L046	7C2					21	36.8	6.36	51.9				
L055	7C2	24	44	13	60	21	35	6.4	49	107	6.3	106	11
L097	7C2	22	42	13	50	21	33	6.5	49	105	6.4	104	10.4
L133	7C2	5.8 †	7.1 †	0.90 †	28 †	3.23 †	17.8 †	3.09 †	15.4 †				
L137	7C2	31 †	50	17 †	78 †					119 †	20 †	115	22 †
L140	7C2	26	50	14 †	67	28 †	41	9 †	54	98	8 †	140 †	20 †
L158	7C2					20	35	6.2	48				
L161	7C2	25.2	41.5	12.5	53.1	20.7	33.3	7.8	45.4	95	6.5	95	9.4
L162	7C2	25	44	12 †	63	22	35	6.9	51	99	5.6	99	10
L163	7C2	22	42	13	60	37 †	7.25 †	49 †	2.1 †	98	5.64	95	9.76

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Total P – all methods pooled %P											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L009	Pooled	0.038	0.03	0.06	0.075	0.020	0.017	0.078	0.023	0.11	0.046	0.048	0.017
L011	Pooled	0.038	0.04	0.08	0.072	0.027	0.019	0.099	0.026	0.12	0.051	0.0406	0.020

L013	Pooled	0.039	0.04	0.08	0.068	0.023	0.016	0.079	0.024	0.132	0.054	0.046	0.022
L017	Pooled	0.045	0.04	0.1	0.07	0.037	0.022	0.111 †	0.033 †	0.165	0.07	0.046	0.029 †
L018	Pooled	0.037	0.04	0.07	0.068	0.028	0.015	0.076	0.023	0.134	0.049	0.046	0.024
L019	Pooled	0.04	0.04	0.08	0.07	0.024	0.017	0.092	0.023	0.113	0.059	0.051	0.020
L022	Pooled	0.038	0.04	0.07	0.07	0.026	0.019	0.083	0.023	0.098	0.051	0.049	0.022
L023	Pooled	0.036	0.03	0.07	0.072	0.023	0.015	0.088	0.022	0.134	0.056	0.041	0.021
L026	Pooled	0.036	0.04	0.08	0.075	0.029	0.019	0.087	0.024	0.139	0.052	0.049	0.02
L027	Pooled	0.036	0.04	0.05	0.072	0.023	0.014	0.069	0.028	0.11	0.041	0.038	0.020
L028	Pooled	0.047 †	0.05 †	0.09	0.078	0.037	0.026 †	0.09	0.033 †				
L029	Pooled	0.039	0.04	0.06	0.064								
L030	Pooled	0.035	0.03	0.07	0.068	0.018	0.012	0.062 †	0.019				
L032	Pooled	0.043	0.04	0.09	0.071	0.028	0.018	0.027 †	0.090 †	0.12	0.049	0.042	0.021
L044	Pooled	0.03	0.03	0.05	0.044 †	0.025	0.016	0.097	0.023	0.095	0.042	0.033	0.014 †
L046	Pooled	0.0426	0.04	0.08	0.075	0.029	0.018	0.088	0.027				
L055	Pooled	0.039	0.04	0.08	0.072	0.028	0.018	0.093	0.025	0.163	0.064	0.049	0.025
L064	Pooled	0.039	0.04	0.07	0.067	0.022	0.018	0.083	0.026	0.113	0.054	0.04	0.026
L133	Pooled	0.010 †	0.00 †	0.02 †	0.023 †	0.000 †	0.0064 †	0.012 †	0.0021 †				
L137	Pooled	0.039	0.04	0.08	0.077					0.147	0.057	0.03	0.046 †
L140	Pooled	0.036	0.04	0.06	0.074	0.038	0.027 †	0.088	0.032	0.17	0.072 †	0.056	0.039 †
L156	Pooled	0.031	0.03 †	0.05	0.059 †	0.028	0.019	0.091	0.027				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Colwell Extractable P - manual, autocolour pooled (9B1&9B2) mgP/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	9B1	37	47	91	96 †								
L006	9B1					3.22	15.7	78.9	22	59.3	24.9	90.3	10
L011	9B1	33	35	82	122	5.5	16	82	19	64	23	94	5.1
L013	9B2	33	39.5	86.5	120	18 †	37 †	89.5	35 †	82 †	20	124 †	10.5
L015	9B1	32.5	43.1	92.2	143	5.69	18.4	79.7	20.9	67.3	26.7	101	6.95
L018	9B2	30.7	42.1	91.9	117	5.27	18.7	77.8	18.5	63	25	97.4	6.26
L019	9B2	30	40	89	129	5.2	19	80	18	72 †	28	101	7.1
L022	9B1	31.2	40.4	92	122	6.6	19.9	80.4	19.4	66.3	24.2	96.1	6.9
L023	9B1	30.8	42	97.7	140	7.69	17.3	74.6	18.1	64.6	21.9	99.5	7.05
L024	9B1					12 †	42 †	116 †	46 †	67	53 †	9.2 †	8.8
L026	9B2	31	35.8	85.3	128	6.4	19.6	78.8	18.8	63.01	23.63	97.8	5.18
L027	9B1	40 †	109 †	50 †	160 †		17	88	19	145 †	69 †	139 †	15 †
L028	9B2	29	36	106	148	6	19	90	21	65	24	104	7
L030	9B2	31	42	87	120	5.45	19.2	73	18.3	64	20	102	8.3
L032	9B1	31	41	99	125	4.4	18	18 †	86 †	64	38 †	100	6.8

L036	9B2	31.6	41.3	90.3	130	9.65 †	23.2	82.4	23.8	61.1	25.1	94.5	5.24
L044	9B1	38 †	38	88	133	1.8 †	28 †	84	22	71.1 †	22.9	107	10
L045	9B1									55.9 †	23.1	85.8 †	9
L064	9B1	31.8	48.1	99.7	128	3.08	17.9	78.4	19	62	22.6	96.7	7.26
L080	9B1	29.5	33.4	76.9	107					40.3 †	19.6	90.6	3.51
L091	9B1	59 †	31 †	270 †	207 †								
L133	9B1	52 †	69 †	97	157 †	13 †	52 †	89	39 †	233 †	28	161 †	22 †
L139	9B2	36	43	80	121	6	16	76	18	63	23	110	20 †
L158	9B1	30	44	96	131	6.9	17.7	73	16.2	65	20	98	7.9
L160	9B1	36	48	101	190 †	6.9	21	88	22	67	27	102	8
L161	9B1	37.1	46.1	99	130	11.5 †	20	78	23	76 †	27	108	8.1
L162	9B1	32	43	96	125	6.5	20	84	21	64	26	100	5.6
L164	9B1					7.3	20	82	21				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Olsen Extractable P - manual, autocolour pooled (9C1&9C2) mgP/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	9C1	17.2	21.2	44.5	55.4	2.8	13.9	55.9	9.7	23.2 †	7.1	58.1 †	1.1
L003	9C1	14	13	43	41								
L007	9C1	14	19.2	43	48								
L009	9C1	16.5	19.9	40.2	43.5	2.4	18.5 †	60.2	12 †	25.4 †	8.3	48.9	3.0
L011	9C1	13	15	40	42	1	5.5 †	22 †	3.6 †	17	8	46	2.6
L012	9C1	12.8	14	38.2	44	1.9	13.1	50.8	8.0	32.8 †	22 †	53.6	2.9
L013	9C2	12.7	14.4	32.4	40.7	3.9	10.3	42.8	8.7	14.3	6.9	42.4	1.4
L014	9C1	41 †	36 †	66 †	65 †					40 †	29 †	39	19 †
L019	9C2	19	24 †	57 †	60	1.4	12	55	7.5	18	7.9	47	2.5
L022	9C1	15.4	15	37.5	45.3	1.9	12.9	46.1	7.6	17.2	6.9	46.9	2
L024	9C1					0.3	8.6	6 †	0.1 †	17	8.1	93 †	0.4
L026	9C2	12.1	13	36.7	36.1	1.4	10.3	45.2	6.9	13.9	6.4	41.2	1.6
L027	9C1	22 †	15	45	45	13 †	75 †	296 †	63 †		12 †	59 †	3
L030	9C2	12	14	37	38	1.1	10.1	44	6.6	14	5.7	43	1.9
L035	9C1					1.1	11.3	49.7	7.8	12.4	5.4	34.9	2.0
L036	9C2	14.4	14.6	39.7	41.8	1.8	11.2	47.5	6.9	42.5 †	6.5	40.3	1.6
L042	9C2	15.8	18.3	45.6	48.4	3	13	50.2	8.9	17	7.2	46	2.3
L044	9C1	15	18	37	37	0.3	14	49	10	18	7.3	48.3	2
L045	9C1	13	14.2	39.6	34	2.7	13.3	46.6	8.0	13.4	5.9	35.7	1
L063	9C1	15	19.5	44	51.2	3	13.5	49.5	9.2	15.5	6	43	1.5
L135	9C1	11.4	13.4	33.4	38.9	2.2	13.3	50.9	9.6	16.7	11.6 †	41.3	7.3 †
L137	9C1	16	17	45	54					25 †	9.7	67 †	3.2

L139	9C2	10	12	32	35	2.8	13	38	7	13	6.5	41	6.1 †
L142	9C1	10.3	13.0	40.1	31.8	3	16	66 †	13 †	19	16 †	46	3.4
L156	9C2	15	11	38	45	1.4	11	45	1.1 †	16	6	43	1.9
L160	9C1	14	17	42	45	1.9	11	51	7.8	17	7	43	2
L162	9C1	15	15	44	43	1.5	12	53	7.7	16	7.6	46	2
L163	9C1					4.1	11	53	8.1				
L900	9C1					2.2	13.8	51.3	9.3				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Bray-1 Extractable P — manual, autocolour pooled (9E1&9E2) mgP/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L006	9E1					0.30	19.1	60.3	6.8	12.9	11.5	47	0.32
L014	9E1									29 †	60 †	50	3.8 †
L019	9E1	13	11	19	51	0.19	11	32 †	3.2	14	16	55	0.41
L023	9E1	24.3	18.2	35	93.4	0.32	17.1	69	6.0	15.5	30.7	75.7	1.08
L024	9E1					0.12	0.04 †	5.4 †	0.3 †	30 †	17	67	0.9
L026	9E1	18.8	15.8	31.3	89.8	0.31	15.6	40.8	5.9	13.1	1.94	57.8	0.35
L027	9E1	1 †	0.6	24.6	2.9 †					17.6	6.4	77.8	0.8
L029	9E1	25.6	10.7	23.0	76.29					14.4	75.8 †	174.6 †	1.5
L045	9E1	20.9	9.7	9.0	73.7					5.8 †	17	17.4	1
L046	9E1					0.094	20.2	82.3	8.51				
L055	9E1	21.3	16	23.3	105	0.48	19.8	71.1	6.29	14.3	10.8	84.3	0.01
L056	9E1	22	15	28	88	0.5	20	74	7	15	5	83	2
L063	9E1	24.4	19.0	36.4	72	0.6	18.7	48	7.02	17.2	4.3	66	1
L064	9E1	20.3	15.7	33.2	87.1	0.96	15.7	73.1	4.65	12.7	6.35	50.9	1.3
L156	9E1					0.65	17	65	5.8	20	3.3	93	1.7

Lab. Code #	Method Codes	Soil sample identification and values for Acid Extractable P - manual, autocolour (9G1, 9G2) air dry											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 11 1	ASS 11 2	ASS 11 3	ASS 11 4	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L015	9G2									56.3	472	206	26 ††
L023	9G2									54.3	448	240	4

L028	9G2																	55		523		217		16	
L032	9G2									2		20		10		715	††	49.4		510		215		1	
L139	9G2	54		31		284		155		10		20		508		16		44		390		186		6.3	
L143	9G1																	52		530		196		0.8	
L161	9G1	67		37		358		214		9		27		717		23		44		470		230		3.9	

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Phosphorus buffer index (*Colwell*) (9I2a + 9I2b + 9I2c) L/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	9I2a	48 †	94 †	143	94								
L006	9I2c					880	23.2	36.3	57.3				
L011	9I2c	39.2	109	141	89.4	778	22	38	61	223 †	40.9	55.2	410
L013	9I2c	47	85 †	168	104 †	909	26.1	46.1	70.5	252	41	70	494
L015	9I2c	43.6	113.	148.	92.2	956	21.8	40.1	65.3	262	48.8	64	517
L018	9I2c	40.9	112	149	89.5	911	23.6	38	63	245	41.5	60.1	455
L019	9I2c	39	118	153	91	951	21.3	34.5	62.6	261	43.2	62.7	471
L022	9I2c	40.1	114.	151.	90.1	916	26.4	41.8	65.5	264	45.2	60.3	499
L023	9I2c	44.7	116	158	91.7	949	24.1	35	62.5	254	37.2	55.8	475
L026	9I2c	39.4	108.	144.	83.8	8867	22.1	42.3	63.7	257	43.3	61.7	480
L028	9I2c	39	103	145	92	955	25	40	61	258	48	73	516
L032	9I2c					942	21.4	65.7 †	38.8 †	247	40.5	58	451
L036	9I2c	36.4	106	142	82 †	867	27	38.1	64.4	267	42.5	63.4	543
L044	9I2c	63 †	134 †	169	114 †	1040	28	52 †	81 †	251	42.3	61.2	490
L064	9I2c	41	113	154	95.5	782	30.6	43.4	63	272	44	74	356
L139	9I2c	52 †	110	157	94	772	26	48	57	230 †	51	81 †	441
L161	9I2c	39	101	145	67 †	682 †	25.3	39.1	67	254	50.2	70.4	559
L162	9I2b	45.5	113	154	89.2	992	23.5	38.4	67.3	260	44.1	64.4	490
L164	9I2a					1098 †	29.8	43.7	68.5				

Lab. Code #	Method Codes	Soil sample identification and values for NOT ASSESSABLE2009-10: Phosphorus buffer index (*Olsen*) (9I3a + 9I3b + 9I3c) L/kgNOT ASSESSABLE											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L137	9I3a	45.7	111	162	100					238	44	93	416
L162	9I3b	51.6	119	177	103	993	29	64	69.8	263	45.7	83.4	492

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Phosphate Extractable S (10B3) mgS/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	10B3	12	23	21	48								
L009	10B3	29.9 †	41.8 †	37.2 †	72.4 †	168	27.5 †	33 †	34 †	66.9	87.7	50.7	160
L013	10B3	12.0	20.5	21.3	41.5	135	8.7	13.7	11	41	82.6	29.7	153
L015	10B3	12.8	23.1	22.3	46.6	141	11.5	15.3	13.3	51.1	90.3	36.6	159
L026	10B3	12.6	25.1	23.7	48.3	146	10.6	15	12.8	49.8	87.7	34.3	162
L028	10B3	13	23	23	50	136	16	15	18	46	84	33	151
L139	10B3	13	11 †	17	28 †	39 †	8.7	16	7.6	20	87	22	56 †
L162	10B3	11	21	21	44	129	9.9	13	11	45	82	31	149

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: KCl_{40} Extractable S (10D1) mgS/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	10D1	11	13	16	41								
L006	10D1					24.1	8.4	13.7	8.4	26.7	76.3	27.6	71.1
L009	10D1	41.5 †	50.5 †	60.5 †	118 †	13.6	2.4 †	2.6 †	1 †	19.7	56.9	18.6	61.1
L011	10D1	17 †	19 †	23	46	27	12	14	11 †	19	73	23	51 †
L013	10D1	11	15	19	45.5	23.5	7	14.5	10.5	26.5	92	30.5	77
L018	10D1	11.7	14.1	17.5	40	32.9	10	13.8	8.5	23.6	90.5	28.4	70
L019	10D1	10	13	18	30	69 †	8	15	6.8	22	72	20	71
L022	10D1	10.4	11.9	16.6	39	32.2	9.8	13.5	7.6	22	82.5	25.1	64.4
L023	10D1	11.5	15.5	20.7	43.8	27.6	8.5	12	6.9	16	80.6	22.4	55.4
L026	10D1	10	12.5	16.8	36.7	35	9.3	13.3	8.2	23.7	84.2	26.3	69.2
L030	10D1	11	13	19	41								
L036	10D1	10.5	13.4	15.9	38.4	28.2	8.9	12.4	7.3	24	84.4	29	70.5
L064	10D1	11	11.1	18.5	36.7	27.4	11.3	11	7.5	21.3	51.3	17.3	39.7 †
L133	10D1	65 †	86 †	127 †	115 †	42	15 †	18	13 †	27	98	32	65
L161	10D1	20.7 †	38.7 †	18.1	53	31.7	6.8	19.6 †	11.1 †				
L162	10D1					29	9.2	12	7.6	24	84	27	70

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: DTPA Extractable Fe (12A1) mgFe/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1	48.8 †	75.1	53.6 †	79.5	10.4	142 †	7.89	151 †	199	4.38	209	11.4
L003	12A1	16	128	3.5 †	177								
L004	12A1	16	82	22	412								
L005	12A1	67 †	416 †	70 †	296	31 †	99 †	17 †	139	266	7.2 †	208	21 †
L006	12A1					7.2	82	6.48	137	161	1.82	212	12.2
L007	12A1	17	99	26	108								
L009	12A1	19.7	125	35.8	187	22.3 †	91.1	9.45	164 †	304 †	2.05	171	18.2
L011	12A1	19	111	24	324	8.5	86	6.1	128	182	2.5	188	14
L013	12A1	17.6	86.6	25	88.2	2.9	67.5	5.3	125	137	3.7	144	11.2
L014	12A1	7.3 †	51 †	17	124					233	3.1	2.56 †	22 †
L015	12A1	20	117	30	321	7	83	6.55	126	169	2.18	177	13
L017	12A1	15	112	32	60	15	46 †	5.21	91 †				
L018	12A1	17.6	109	31.7	185	6	69.7	6.07	118	170	1.67	170	11.6
L019	12A1	19	108	31	203	12	74	8.6	130	174	4.4	185	18
L022	12A1	21	141	36	159	4.4	70	5.9	125	252	2.1	152	16
L023	12A1	21.8	92.3	26	268	7.8	66.2	8.05	71.3 †	148	1.71	150	9.3
L024	12A1					13	110 †	15 †	220 †				
L026	12A1	17.5	106	33.1	287	6.8	75.3	6.74	110	158	2.85	177	13.9
L027	12A1	46 †	200 †	31.2	345	57.4 †	103 †	11.7	201 †		3.96	3.86 †	73.9 †
L028	12A1	17.2	105	31.5	242	6.6	68.2	6.5	123	180	1	172	12.7
L030	12A1	18	101	26	146								
L035	12A1	6.2 †	57.7 †	14	46.6	3.5	49.7 †	2.36	93.7 †	136	7.24 †	139	46.5 †
L036	12A1	21.9	113	31.2	114	5.3	53.7 †	5.4	118	163	2.47	151	11.7
L041	12A1	11.5 †	69.8 †	19.9	70.1	31.2 †	69.5	8.83	129	249	3.28	158	21.2 †
L044	12A1	29 †	154 †	47	112	8.8	76.4	7.95	137	140	14.5 †	138	23 †
L055	12A1	19.6	99.6	38.7	60.5	3.3	76.8	11.4	110	94.6	4.1	264 †	15.4
L064	12A1	23.6	116	40.3	332	12.4	77.6	12.8 †	119	205	0.3	205	12.7
L080	12A1	20	33 †	96 †	253					161	2.58	166	13.6
L133	12A1	21	111	30	134	6.19	71	5.5	123	195	1.8	178	13
L135	12A1	18.1	101	36.8	286	4.9	76	8.1	124	136	2.21	143	8.51
L137	12A1	22	124	34	85					210	3.5	220	26 †
L139	12A1	25	50 †	48	41	16	51 †	23 †	95 †	87	6 †	83 †	14
L158	12A1	15	99	25	72	11	77	1.5	129	157	1.7	145	9.9
L160	12A1	20	125	33	191	4.6	69.9	3.9	130	165	0.5	166	4.98 †
L161	12A1	19.8	98	29.5	394	7.7	79	8	128	135	1.41	150	8.72
L162	12A1	19	109	30	291	7.4	75	6.8	132	172	2.1	178	14

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: DTPA Extractable Cu (12A1) mgCu/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1	0.624	2.24	2.4	1.19	0.05	0.941	0.963	1.83	1.84	1.42	2.62	0.45
L003	12A1	0.8 †	2.73 †	2.84 †	1.65 †								
L004	12A1	0.464 †	1.5	1.8	0.904								
L005	12A1	1.1 †	3.2 †	3.4 †	1.6 †	0.321 †	0.956	1.2	1.8	1.8	1.1	1.4 †	0.0045 †
L006	12A1					0.057	0.943	0.973	1.8	1.56	2.21 †	2.48	1.64 †
L007	12A1	0.7	2	2.1	1.3								
L009	12A1	1.01 †	2.48 †	2.45	1.29	0.898 †	1.72 †	1.63 †	2.65 †	3.52 †	1.94 †	3.03 †	1.39 †
L011	12A1	0.498	1.7	2	0.918	0.055	0.868	0.934	1.8	1.7	1.4	2.2	0.387
L013	12A1	0.58	1.6	1.78	0.94	0.07	1.01	0.93	1.88	1.56	1.32	2.47	0.42
L014	12A1	0.64	1.8	2.1	1.1					1.6	1.6	3.2 †	0.51
L015	12A1	0.636	1.89	2.13	1.12	0.086 †	1.09	1.07	2.01	1.67	1.52	2.46	0.485
L018	12A1	0.56	1.89	2.39	0.903	0.054	0.958	0.989	1.8	1.59	1.4	2.3	0.409
L019	12A1	0.635	1.8	2.2	0.904	0.001 †	0.955	1	1.8	1.5	1.5	2.4	0.374
L022	12A1	0.58	1.9	2.05	0.92	0.06	1	1.11	1.89	2.4 †	1.48	2.15	0.61 †
L023	12A1	0.638	1.85	2.14	1.01	0.077	0.878	0.984	1.68	1.49	1.28	2.07	0.335
L024	12A1					1.4 †	3 †	3.9 †	4.7 †				
L026	12A1	0.506	1.59	1.95	0.905	0.012 †	0.955	0.927	1.72	1.37	1.28	2.11	0.307
L027	12A1	1.65 †	3.04 †	3.5 †	1.66 †	0.377 †	1.56 †	1.7 †	2.73 †		2.29 †	4.03 †	1.27 †
L028	12A1	0.6	1.7	2.2	0.9	0.05	1	1	1.9	1.8	1.4	2.4	0.4
L030	12A1	0.505	1.57	1.85	0.737								
L035	12A1	0.39 †	1.31	1.56 †	0.58 †	0.05	1.2	1.04	1.97	1.14 †	0.65 †	1.59 †	0.38
L036	12A1	0.596	1.85	2	0.869	0.049	0.909	0.924	1.92	1.47	1.36	2.46	0.352
L041	12A1	0.38 †	1.33	1.45 †	0.48 †	0.42 †	1.3 †	1.12	1.96	1.98 †	1.3	2.02	0.59 †
L044	12A1	0.882 †	2.5 †	3 †	1.4 †	0.06	0.988	0.972	1.7	1.16 †	0.62 †	1.2 †	0.06 †
L055	12A1	0.63	1.64	2.04	0.96	0.003 †	1.26 †	1.28 †	1.68	0.897 †	2.14 †	3.86 †	0.423
L064	12A1	0.58	1.67	2.17	1.1	0.07	1.06	0.99	1.9	1.58	1.67	2.77	0.46
L080	12A1	0.67	2.04	1.97	1.25					1.56	1.38	2.14	0.335
L133	12A1	0.577	7.9 †	2.3	0.902	0.164 †	1.63 †	0.944	1.79	1.4	1.4	2.3	0.27
L135	12A1	0.563	1.67	2.10	1.062	0.012 †	1.2	1.2	1.9	1.32	1.50	2.46	0.321
L137	12A1	0.62	1.9	2.2	1					2 †	2.1 †	3.8 †	0.97 †
L139	12A1	0.593	0.69 †	1.7	0.458 †	0.087 †	0.71 †	1.1	1.2 †	0.618 †	1.1	1.5 †	0.41
L158	12A1	0.62	1.8	2.3	1.1	0.18 †	0.87	0.94	2.14 †	1.6	1.4	2.3	0.39
L160	12A1	0.574	1.82	2.12	0.876	0.057	1.052	1.074	1.97	1.56	1.33	2.19	0.376
L161	12A1	0.66	2.11	2.39	1.44 †	0.04	1.05	1.09	1.91	1.57	1.38	2.25	0.39
L162	12A1	0.606	1.9	2.2	0.977	0.05	0.991	1.03	1.81	1.6	1.5	2.3	0.413

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: DTPA Extractable Mn (12A1) mg Mn/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1	96.3 †	110	64.3	108	2.67	85.2	14.6	152	147	24.2	50.2	36.5
L003	12A1	145	176	76	197								
L004	12A1	126	124	63	133								
L005	12A1	159	300 †	163 †	216 †	4.2 †	101	21	164	255 †	36 †	41	44 †
L006	12A1					1.94	96.9	17.8	178	180	19.1	38.8	20.8
L007	12A1	133	140	80	150								
L009	12A1	115	122	64	126	4.87 †	81.7	17.9	147	210	21.3	43.9	35.1
L011	12A1	111	120	56	123	1.9	78	15	142	154	19	37	22
L013	12A1	108	110.	54.4	122	1.1	87.8	16.9	154	146	18.3	42.8	18.4
L014	12A1	61 †	78	41	75					134	30 †	47	39
L015	12A1	135	147	73	162	2	100	19	182	179	23.3	45.4	26.3
L017	12A1	145	186	91	174	5.05 †	92	20.2	181				
L018	12A1	141	162	84.6	154	1.99	99.6	18.8	178	180	23	48.4	29.6
L019	12A1	130	137	68	131	1.1	74	16	144	166	22	42	25
L022	12A1	121	126	64	129	1.55	86	17	153	248 †	21	41	32
L023	12A1	113	104	62.3	140	1.23	80.3	19.1	98.9 †	184	21	45.5	25.6
L024	12A1					3	160 †	40 †	340 †				
L026	12A1	131	136	67.9	154	1.22	91	17.7	162	154	20.7	42.1	23.4
L027	12A1	139	148	86.1	156	5.45 †	93.8	20.2	179		30.2 †	45.3	42.3 †
L028	12A1	124	132	71.2	133	1.8	82.8	17.4	160	198	19.2	44.7	25.6
L030	12A1	104	113	58	108								
L035	12A1	84.3 †	127	48.9	109	1.23	101	16.4	199	138	11.7 †	45	35.6
L036	12A1	131	142	67.2	156	1.49	85.13	15.2	170	166	21.6	42.3	22.3
L041	12A1	132	125	62.2	113	2.39	88.3	16.4	28.3 †	196	18.8	40.8	28.8
L044	12A1	150	187	90	181	2.61	86.2	19.3	202	186	35.7 †	40.4	23.3
L055	12A1	129	166	83.8	175	0.62	107	25.4 †	186	87.8 †	31.6 †	61.1 †	30.5
L064	12A1	132	130	82.9	154	1.33	86.6	16.5	157	178	27	53.6 †	30.1
L080	12A1	133	107	104	130					170	21.5	44.3	24.5
L133	12A1	116	119	63	115	1.85	107	17	138	206	21	42	30
L135	12A1	144	188	82	220 †	0.61	102	21	193	152	23.9	48.6	22.32
L137	12A1	136	186	85	202					144	30 †	52 †	38
L139	12A1	58 †	38 †	52	50 †	1.9	38 †	19	77 †	69 †	25	11 †	13
L160	12A1	140	164	79	152	1.33	99.7	18.5	190	190	20.6	45.1	25
L161	12A1	127	147	69	106	4.56 †	96	19	150	149	19.7	41.8	21.8
L162	12A1	124	137	66	140	1.6	88	17	163	169	21	42	24

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: DTPA Extractable Zn (12A1) mg Zn/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	12A1	3.28	1.32	0.63 †	2.17	0.059	3.22 †	1.96	1.99	2.59	0.528	12 †	0.174
L003	12A1	3.94	2.09 †	1.47 †	2.88								
L004	12A1	3.2	1.3	0.91	2.1								
L005	12A1	3.7	2 †	5.6 †	1.5	0.713 †	2.7	3.1 †	1.9	2.8	0.292 †	6.4 †	0.509 †
L006	12A1					0.118	2.6	1.92	1.96	6.55 †	0.268 †	12.8 †	0.57 †
L007	12A1	3.4	1.5	1.2	2.4								
L009	12A1	3.58	1.61	1.19	1.97	0.326 †	2.58	2.05	2	3.63 †	0.681	10.3	0.41
L011	12A1	2.9	1.2	0.54 †	2.4	0.16	2.5	1.6	1.9	1.8	0.559	9.6	1.9 †
L013	12A1	2.78	1.16	0.86	1.72	0.06	2.49	1.67	1.81	1.51	0.56	10.07	0.25
L014	12A1	3.2	1.2	0.98	1.9					2.4	0.93 †	10	0.48 †
L015	12A1	3.48	1.47	1.06	2.29	0.132	2.78 †	2.02	2.12	2.04	0.653	10.2	0.319
L018	12A1	3.25	1.45	1.1	1.9	0.115	2.72	2.02	2.04	2.14	0.559	10.5	0.231
L019	12A1	3.3	1.3	1	1.7	0.097	2.5	2	1.9	1.8	0.77 †	10	0.314
L022	12A1	3.1	1.39	1.28	1.91	0.09	2.54	1.95	1.92	3.25 †	0.6	9.7	0.2
L023	12A1	3.6	1.34	0.95	2.09	0.111	2.37	2	1.71	1.77	0.443	10.1	0.175
L024	12A1					0.4 †	2.6	2.5 †	2.1				
L026	12A1	3.14	1.23	0.87	2.04	0.056	2.51	1.81	1.82	1.6	0.498	9.9	0.18
L027	12A1	4.11	1.76	1.27	2.49	0.077	2.73	2	2.09		1 †	9.34	1 †
L028	12A1	3.1	1.3	1	1.9	0.05	2.5	1.9	1.9	2.2	0.5	10.6	0.2
L030	12A1	3.1	1.27	0.91	1.68								
L035	12A1	2.38 †	0.98	0.64 †	1.5	0.04	2.52	1.79	1.86	1.19	0.34 †	10.5	0.17
L036	12A1	3.4	1.32	0.93	1.89	0.047	2.29 †	1.7	1.89	1.76	0.541	10.5	0.167
L041	12A1	3.13	1.3	0.91	1.92	0.18	2.3 †	1.64	1.65	2.45	0.5	8.92	0.25
L044	12A1	4.2 †	1.8 †	1.6 †	2.6	0.109	2.52	1.97	1.83	1.94	0.499	8.66	0.929 †
L055	12A1	3.47	1.18	0.96	1.94	0.04	2.75	2.6 †	1.72	1.01	0.77 †	14.7 †	0.22
L064	12A1	3.38	1.16	1.08	2	0.13	2.66	1.83	1.94	2.06	0.73	9.99	0.35
L080	12A1	3.58	1.16	1.09	2.27					1.87	0.657	10.2	0.328
L133	12A1	3.4	1.3	1	2.6	0.094	2.61	1.62	1.77	1.6	0.46	11	0.131
L135	12A1	3.38	1.41	1.05	2.58	0.064	2.6	2.1	1.8	1.62	0.62	10.5	0.297
L137	12A1	4	1.8 †	1.4 †	2.5					3 †	1.2 †	12 †	0.89 †
L139	12A1	3.22	0.68 †	0.96	1.22	0.158	1.8 †	3 †	1.4 †	1.4	0.753	6 †	0.167
L158	12A1	2.9	1.1	0.88	1.6	0.13	2.24 †	1.32 †	1.66	1.94	0.56	10.2	0.23
L160	12A1	3.38	1.51	1.12	1.9	0.118	2.60	2.04	2.06	1.89	0.522	9.07	0.168
L161	12A1	3.58	1.49	1.1	2.66	0.11	2.44	1.81	1.84	1.91	0.55	9.37	0.21
L162	12A1	3.3	1.4	1	2	0.095	2.54	1.92	1.91	2	0.526	10	0.226

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Hot CaC_{l2} Extractable B - manual colour + ICPAES pooled (12C1 and 12C2) mg B/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	12C2	0.796	0.94	0.85	1.3								
L009	12C2	0.829	0.76	0.74	1.13	0.468	2.35 †	0.586	0.558	1.09	1.95	0.872	4.96
L011	12C2	0.891	0.79	1.4 †	1.2	0.147	0.548	0.807	0.585	0.795	1.6	0.77	9
L013	12C2	0.55	0.5	1.05	1.1	0.65	1.1	0.65	0.6	1.35	1.85	0.9	7.3
L018	12C2	0.409	0.29	0.21 †	0.787	0.402	0.732	0.426	0.39 †	1.01	1.03	0.621	4.77
L019	12C2	0.52	0.46	0.56	0.87	0.405	1.5	0.585	0.624	1	1.1	0.752	5.3
L022	12C2	0.61	0.55	1.05	0.96	0.9	1.25	0.67	0.62	1.1	1.84	0.75	6.56
L023	12C2	0.508	0.53	0.98	0.848	0.491	0.778	0.295 †	0.41 †	1.62	1.82	0.87	8.68
L026	12C2	0.714	0.60	1.16	1.11	0.848	1.08	0.759	0.632	1.47	2.14	0.801	8.4
L028	12C2					0.4	0.5	0.4 †	0.3 †	0.7	1.1	0.4 †	5
L030	12C2	0.474	0.45	0.77	0.766	0.813	1.16	0.651	0.695	1.4	1.9	0.713	7.2
L036	12C2	0.64	0.54	0.90	1.06	0.778	0.9	0.674	0.699	1.67	2.29	0.918	9.43
L041	12C2	0.43	0.64	0.77	1.65 †	0.52	0.95	0.64	0.4 †	1.89	2.64	3.44 †	8.56
L055	12C2	0.2	0.43	0.9	0.57 †	0.54	0.9	0.55	0.54	2.6 †	2.16	1.19 †	15.1 †
L064	12C2	0.63	0.7	0.76	1.07	0.68	1.26	0.72	0.72	1.57	1.98	2.32 †	4.28
L080	12C1	0.815	0.74	0.81	1.78 †					1.1	1.41	2.3 †	4.74
L133	12C2	0.585	0.63	0.81	1.1	0.963	1.59	0.958 †	0.9 †	3.1 †	1.6	1.1	9.1
L135	12C2	0.731	0.61	0.98	1.13	0.778	0.649	0.615	0.551	1.08	1.67	0.708	5.67
L137	12C1	1	1.1 †	1	2.7 †					1.2	1.9	4.8 †	4.8
L139	12C2	0.788	0.32	0.91	0.525 †	0.713	0.698	1.1 †	0.575	0.605	2.6	0.54	5.9
L143	12C2	0.75	0.64	0.9	1.1	0.83	0.89	0.66	0.62	1.64	1.89	0.852	8.13
L162	12C2	0.666	0.56	0.94	1	0.798	1	0.69	0.627	1.5	1.8	0.784	7.6

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L005	15A1	10.8	13.7	25.3	4.37	1.7 †	1.2 †	10 †	2.4 †	13.7	24.1	7.46	5.06
L009	15A1	11.1	13.8	23	4.18	2.76 †	2.07	9.89 †	4.3 †	10.5 †	11.7 †	6.59	4.38
L011	15A1	10.3	13.2	22.4	3.43	3.37	2.26	19.7	8.72 †	13.2	23.8	7.52	4.74
L014	15A1	21 †	16 †	24	9.5 †					11.1 †	11.4 †	35.4 †	26.4 †

L015	15A1	11.3	14	24.7	4.24	3.46	2.18	20.4	5.31	14.3	27.7 †	8.43 †	5.37
L018	15A1	10.1	12.5	21.7	3.17	3.25	2.1	20.5	4.64	13	23.1	7.32	4.46
L022	15A1	10.4	13.2	22.8	3.52	3.35	2.23	18.45	4.95	13.4	23.2	7.42	4.55
L023	15A1	10.3	13.4	23.6	3.73	3.5	2.2	18.9	4.95	13.4	24.2	7.41	4.75
L024	15A1					32 †	26 †	32 †	33 †	0.45 †	0.73 †	0.62 †	5.8 †
L027	15A1	15.4 †	14.2	22.6	4.8	3.3	2.2	19.6	4.8	12 †	21.2	7.2	4.4
L028	15A1	9.87	12.4	22	3.21	3.47	2.15	19.2	5.07	13.1	23.7	8.5 †	4.82
L035	15A1									21.4 †	34.1 †	18.5 †	16.5 †
L036	15A1	10.4	13.2	22.4	3.72	3.1	1.98	18.3	4.52	13.3	24.8	7.21	4.59
L044	15A1	20.6 †	26.7 †	45.5 †	6.66 †	3.32	2.2	19.8	4.78	15.4 †	28.8 †	9.09 †	6.05 †
L045	15A1	10.5	14.6	24.2	3.89	3.77	2.26	12 †	5.26	13.7	12 †	7	4.6
L064	15A1	10.6	13.8	23.7	3.79	2.81 †	1.89 †	19.7	5.02	15.8 †	27.2	9.6 †	5.6
L080	15A1	10.9	13.2	25.5	3.78					13.1	23.6	7.94	5.15
L160	15A1	10.7	13	24	3.4	3.48	2.12	20	4.86	13.8	24.1	7.26	4.59
L162	15A1	10.6	13.3	22.6	3.44	3.45	2.21	19.2	4.9	13.8	25.2	7.29	4.74

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L005	15A1	3.71	5.46	27.8	0.839	4.1 †	0.506	1.3	2.7 †	18.7	2.6	1.91	11.8 †
L009	15A1	3.52	5.33	13.8 †	0.712	2.75 †	0.495	1.11 †	2.49 †	9.78 †	1.89	1.41	6.37 †
L011	15A1	3.65	5.85	23.5	0.661	4.94	0.546	1.32	5.41 †	14.2	2.05	1.45	8.93
L014	15A1	8.87 †	4.87	12 †	5.3 †					4.87 †	7.74 †	6.31 †	4.7 †
L015	15A1	3.77	5.95	24.3	0.791	5.24	0.556	1.36	3.26	17.3	2.51	1.89	11.2
L018	15A1	3.3	5.25	22.8	0.53	4.97	0.472	1.32	3	17.2	2.24	1.55	10.1
L022	15A1	3.55	5.6	23.8	0.6	5.06	0.52	1.29	3.09	16.6	2.15	1.64	9.95
L023	15A1	3.23	5.44	36 †	0.675	5.02	0.544	1.31	3.04	18.7	2.19	1.6	10.4
L024	15A1					53 †	8.2 †	19 †	34 †	1.8 †	0.35 †	0.35 †	38 †
L027	15A1	5.2 †	6.6 †	23	1 †	4.9	0.5	1.3	3	15.4	2	1.6	9.6
L028	15A1	3.1	5.08	22.2	0.516	4.94	0.468	1.26	3.1	16.3	2.42	1.8	9.45
L035	15A1									16.1	1.63	1.51	9.95
L036	15A1	3.35	5.35	23.3	0.63	4.59	0.45	1.18 †	2.79	16.1	2.11	1.53	9.68
L044	15A1	7.59 †	12.3 †	49.9 †	1.49 †	5.01	0.514	1.38	3.18	18.3	2.75	1.86	11.7
L045	15A1	3.72	6.28 †	25.1	0.69	5.33	0.5	1.13 †	3.18	17.1	2	1.7	10.4
L064	15A1	3.92	7.32 †	11.9 †	0.68	6.1 †	0.51	1.27	3.17	16	2.2	1.8	9.6
L080	15A1	3.53	5.25	25.9	1.24 †					12.8 †	3.3 †	2.54 †	9.14
L160	15A1	3.6	5.6	25	0.63	5.34	0.48	1.33	3.17	17.4	2.36	1.69	10.4
L162	15A1	3.45	5.4	22.6	0.58	5.19	0.506	1.28	3.14	16.9	2.17	1.57	10.2

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L005	15A1	0.057	0.16	0.94	0.158	0.439	0.023	0.067	0.119	1.44	1.05	0.165	6.42
L009	15A1	0.352 †	0.40 †	1.18 †	0.408 †	0.846 †	0.347 †	0.455 †	0.54 †	1.84	1.4	0.419 †	8.96 †
L011	15A1	0.079	0.13	0.72	0.097	0.47	0.1 †	0.135	0.272	1.2	0.877	0.03 †	6.96
L014	15A1	0.02	0.04 †	0.14 †	0.03 †					0.016 †	0.077 †	0.066 †	0.038 †
L015	15A1	0.083	0.19	0.99	0.171 †	0.493	0.081 †	0.226 †	0.256	1.21	0.884	0.144 †	6.84
L018	15A1	0.075	0.25	0.99	0.111	0.532	0.025	0.124	0.191	1.69	1.3	0.212	7.56
L022	15A1	0.07	0.16	0.91	0.12	0.48	0.03	0.1	0.15	1.58	1.19	0.21	7.28
L023	15A1	0.041	0.15	0.91	0.116	0.454	0.022	0.083	0.135	1.52	1.12	0.196	7.99
L024	15A1					0.99 †	0.41 †	0.51 †	0.59 †	0.18 †	0.16 †	0.1 †	5.9
L027	15A1	6.1 †	4.3 †	1.4 †	0.4 †	0.5	0.1 †	0.1	0.2	1.5	1.2	0.2	7.3
L028	15A1	0.04	0.13	0.87	0.088	0.491	0.04	0.119	0.179	1.58	1.17	0.215	6.92
L035	15A1									2.19 †	1	0.38 †	8.91
L036	15A1	0.061	0.19	1.08	0.138	0.456	0.032	0.107	0.158	1.57	1.14	0.2	7.09
L044	15A1	0.074	0.28	1.79 †	0.19 †	0.4	0.022	0.041	0.1	1.26	0.865	0.18	8.66
L045	15A1	0.1	0.35 †	1.88 †	0.25 †	0.23 †	0.02	0.04	0.07	1.6	1.2	0.2	7.6
L064	15A1	0.063	0.26	0.92	0.122	0.329 †	0.028	0.068	0.129	1.77	1.2	0.18	7
L080	15A1	0.117	0.12	0.43 †	0.115					0.765 †	0.507 †	0.101 †	4.816 †
L160	15A1	0.03	0.15	0.94	0.11	0.41	0.01	0.04	0.09	1.62	1.27	0.21	7.57
L162	15A1	0.052	0.18	0.88	0.113	0.478	0.019	0.09	0.155	1.68	1.2	0.191	8.16

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L005	15A1	0.347	0.74 †	2.16	1.9	0.795 †	0.706 †	0.99 †	0.721 †	0.659	1.16	0.487	1.28
L009	15A1	0.353	0.71	2.21	1.47	0.627	0.525	0.767	0.543 †	0.642	1.08	0.463	1.31
L011	15A1	0.293	0.58	2.18	1.45	0.917 †	0.465	0.726	0.894 †	0.596	1.29 †	0.32	1.52 †
L014	15A1	0.7 †	1.26 †	5.93 †	3.2 †					0.35 †	0.366 †	0.673 †	0.286 †
L015	15A1	0.301	0.59	2.36	1.67	0.532	0.386 †	0.606	0.398 †	0.509	0.995	0.339	1.28
L018	15A1	0.298	0.61	2.29	1.43	0.587	0.478	0.727	0.495	0.534	1.02	0.354	1.21
L022	15A1	0.3	0.58	2.1	1.48	0.58	0.48	0.71	0.49	0.5	0.99	0.36	1.18

L023	15A1	0.306	0.63	2.42	1.58	0.617	0.49	0.716	0.508	0.568	1.03	0.369	1.29
L024	15A1					0.6	0.5	0.8	0.49	0.06 †	0.11 †	0.05 †	2.4 †
L027	15A1	1.3 †	1.2 †	3.2 †	1.3	0.6	0.5	0.7	0.5	0.5	1	0.4	1.2
L028	15A1	0.262	0.57	2.14	1.3	0.567	0.428	0.675	0.485	0.531	0.961	0.385	1.16
L029	15A1	0.460 †	0.76 †	2.31	1.60								
L035	15A1									0.66	0.62 †	0.32	1.25
L036	15A1	0.286	0.61	2.39	1.41	0.508	0.411	0.628	0.433 †	0.559	0.948	0.36	1.17
L044	15A1	0.64 †	1.29 †	5.69 †	3.35 †	0.609	0.494	0.824	0.48	0.558	0.982	0.306	1.4
L045	15A1	0.68 †	1.34 †	4.46 †	3.04 †	0.59	0.35 †	0.6	0.4 †	0.5	1.1	0.4	1.2
L064	15A1	0.309	0.48	1.95	1.33	0.546	0.433	0.69	0.502	0.521	0.88	0.31	1.1
L080	15A1	0.399 †	0.69	2.12	1.66					0.477	0.866	0.399	1.09
L160	15A1	0.28	0.58	2.2	1.4	0.59	0.48	0.73	0.51	0.51	0.96	0.34	1.21
L162	15A1	0.315	0.59	2.22	1.45	0.565	0.459	0.663	0.484	0.548	0.943	0.364	1.18

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	15D3	16.5 †	26.6 †	46.9 †	9.38 †	3.22	2.21	19.1	5.09	12.9	19.2	6.62	4.11
L003	15D3	90 †	92 †	180 †	24 †					20.18 †	25.92	13.99 †	8.27 †
L004	15D3	10.708	13.1	21.3	3.702								
L006	15D3					3.38	2.24	18.8	4.78	11.8	20.3	6.79	4.15
L007	15D3	10.2	12.8	24.2	3.4								
L009	15D3	10.7	12.7	22.1	4.12	3.63	2.55	20.6	5.17	13.7	31.6	8.26	5.12
L011	15D3	11.4	13.7	22.4	3.98	3.36	2.21	19.3	8.56 †	12.9	25.9	7.68	4.56
L012	15D3	10.3	12.9	23	3.38	3.49	1.83	15.7	4.88	12.6	20.8	7.07	4.49
L013	15D3	10.6	12.8	22.8	3.6	3.5	2.3	18.1	4.9	13.3	27.4	8.1	4.8
L017	15D3	10.08	12.6	22.9	3.44	3.45	2.16	18.41	5.05	12.73	22.06	7.02	4.41
L019	15D3	14.1 †	16.9 †	25.8	5.32 †	3.57	2.35	10.3 †	5.5	14.3	9.98	7.82	4.95
L026	15D3	11.1	13.7	22.6	3.78	615 †	407 †	3695 †	890 †	11.9	21	6.73	4.2
L030	15D3	10.5	12.8	22.8	3.56	3.15	2.05	17	4.6	11.8	19.2	6.87	4.38
L035	15D3	9.21	13.2	23.8	2.74 †								
L041	15D3	11.65	13.8	25.3	4.26	3.36	2.34	16.31	4.95	10.18	12.17	5.05 †	3.35 †
L042	15D3	11.5	14.2 †	26.3	3.92	3.33	2.09	17.3	4.95	12.3	21.4	6.4	4.21
L055	15D3	10.2	12.3	21.6	3.56	3.82	2.31	22.3	4.85	11.8	25	7.15	4.32
L133	15D3	10.3	13	31 †	3.3	2.97	1.94	22	4.67	11	18	6.4	4.8
L135	15D3	11.565	14.0	23.4	4.253	3.711	2.492	16.7	5.264	13.15	22.62	7.97	5.01
L137	15D3	9.85	12	20.8	3.7					13.2	26	7.5	4.8
L139	15D3	10.58	13.1	21	3.77	3.51	2.29	11.2 †	5.54	11.3	19.2	6.83	4.06
L142	15D3	8.43 †	6.38 †	8.56 †	2.34 †	1.92 †	1.18 †	19.6	2.83 †	12.6	23.5	7	4.63

L156	15D3	14.1 †	10.6 †	14.7 †	3.74					13.4	32.2	8.62	4.76
L158	15D3	10.87	13.1	22.6	3.82	3.29	2.23	16.5	4.71	12.75	24.13	7.07	4.6
L161	15D3	9.69	12	21	4.28	3.73	2.42	17.25	5.11	14.3	22.8	7.71	4.45
L900	15D3					3.04	2.04	18.6	4.78				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	15D3	3.29	4.79	1.72 †	0.619	4.63	0.518	1.13	2.78	20.3 †	2.13	1.7	17.2 †
L003	15D3	36 †	57 †	253 †	5.33 †					15.5	2.04	1.56	9.4
L004	15D3	3.25	5.18	22.7	0.547								
L006	15D3					4.85	0.49	1.22	2.91	15.1	1.87	1.41	8.86
L007	15D3	3.84	5.41	27.4 †	0.73								
L009	15D3	3.4	5.08	13.9 †	0.723	4.65	0.585 †	1.36	2.98	11.5 †	2.33	1.73	8.03
L011	15D3	3.48	5.47	22.3	0.658	4.84	0.517	1.25	5.24 †	15.7	2.1	1.57	9.34
L012	15D3	3.35	5.45	18.9	0.591	5.16	0.432	1.14	2.95	8.24 †	2.1	1.57	10.7
L013	15D3	3.33	5.29	22.0	0.64	4.45	0.5	1.24	2.92	16.1	2.29	1.52	10.0
L017	15D3	3.54	6.11	26.7	0.65	5.28	0.5	1.33	3.19	15.6	2.12	1.38	8.69
L019	15D3	3.99 †	6.32	25	0.764	5.65	0.56	1.25	3.43 †	17.3	1.98	1.55	10.3
L026	15D3	3.52	5.59	23.2	0.608	552 †	55.8 †	140 †	334 †	15.6	1.86	1.42	9.25
L030	15D3	3.37	5.34	22.6	0.619	4.48	0.46	1.18	2.8	14.7	1.91	1.51	9.32
L035	15D3	2.7 †	4.5	21.3	0.51								
L041	15D3	3.4	4.34	21.9	0.66	4.78	0.55	1.19	2.98	12.0 †	2.04	1.46	6.88 †
L042	15D3	3.82	5.78	26.1	0.93 †	3.94	0.5	1.21	2.17 †	16.6	2.05	1.51	9.97
L055	15D3	3.23	5.46	22.9	0.58	5.51	0.52	1.29	2.88	14.8	2.16	1.48	9.71
L133	15D3	3.1	4.8	38 †	0.533	4.01	0.390 †	0.978 †	2.47 †	15	1.8	1.4	8.7
L135	15D3	3.98 †	5.57	23.7	1.06 †	4.93	0.62 †	1.17	2.99	16.6	2.22	1.73	9.86
L137	15D3	3.29	4.9	21.5	0.695					16.9	2.32	1.61	10.1
L139	15D3	3.51	5.5	23.0	0.591	5.28	0.494	1.48 †	3.31 †	15.5	2.29	1.49	9.09
L142	15D3	4.59 †	2.68 †	2.83 †	2.97 †	4.3	0.43	1.22	2.8	15.4	9.24 †	14.9 †	8.88
L156	15D3	5.09 †	3.07 †	13.6 †	0.515					14.6	2.36	1.64	9.82
L158	15D3	3.21	5.1	21.4	0.63	5.02	0.52	1.26	3.03	16.9	2.19	1.58	10.4
L161	15D3	2.88	4.62	16.9 †	0.49	4.88	0.574	1.28	3.02	14.9	1.87	1.38	9.1
L900	15D3					4.67	0.5	1.3	2.91				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L003	15D3	0.35 †	1.36 †	9.27 †	0.99 †					1.59	1.69 †	0.25	6.81
L004	15D3	0.106	0.20	0.91	0.121								
L006	15D3					0.459	0.019	0.107	0.153	1.56	1.21	0.35 †	6.45
L007	15D3	0.06	0.13	1.11 †	0.1								
L009	15D3	0.34 †	0.46 †	1.11 †	0.434 †	0.657 †	0.262 †	0.292 †	0.346 †	1.53	1.2	0.274	5.39
L011	15D3	0.098	0.12	0.77	0.137	0.467	0.102 †	0.138	0.267 †	1.8 †	1.28	0.031 †	8.93
L012	15D3	0.114	0.20	0.71	0.189	0.418	0.027	0.072	0.117	1.59	1.17	0.201	6.87
L013	15D3	0.04	0.15	0.86	0.12	0.45	0.05	0.1	0.17	1.57	1.27	0.23	7.97
L017	15D3	0.19 †	0.28	1.02	0.07	0.47	0.04	0.11	0.12	1.52	1.13	0.18	6.18
L019	15D3	0.072	0.20	1.28 †	0.185	0.512	0.001	0.075	0.132	1.58	1.11	0.187	7.16
L026	15D3	0.037	0.15	0.88	0.117	99.1 †	3.88 †	19 †	31 †	1.56	1.09	0.181	7.09
L030	15D3	0.046	0.15	0.90	0.113	0.457	0.046	0.112	0.167	1.5	1.07	0.208	7.29
L035	15D3	0.06	0.19	0.83	0.12								
L041	15D3	0.1	0.21	0.87	0.2	0.5	0.11 †	0.16	0.22	1.58	1.17	0.26	7.04
L042	15D3	0.07	0.18	0.92	0.16	0.47	0.03	0.1	0.14	1.46	1.06	0.18	7.31
L055	15D3	0.03	0.14	0.88	0.1	0.52	0.028	0.099	0.144	1.89 †	1.4	0.213	8.43
L133	15D3	0.036	0.13	0.82	0.11	0.244 †	0.014	0.040	0.082	1.4 †	1.01	0.154	6.5
L135	15D3	0.049	0.17	0.80	0.151	0.475	0.099 †	0.148	0.202	1.39 †	1.05	0.252	6.09
L137	15D3	0.07	0.17	0.87	0.143					1.59	1.22	0.23	7.48
L139	15D3	0.065	0.22	1.23 †	0.145	0.552	0.053	0.155	0.198	1.69 †	1.27	0.23	4.71 †
L142	15D3	0.03	0.1	0.81	0.11	0.44	0.02	0.08	0.13	1.58	1.17	0.19	1.97 †
L156	15D3	0.102	0.01 †	0.49 †	0.123					1.64	1.17	0.188	8.28
L158	15D3	0.03	0.12	0.74	0.1	0.43	0.02	0.09	0.14	1.49	1.08	0.17	7.09
L161	15D3	0.05	0.14	0.82	0.12	0.422	0.046	0.1	0.146	1.41 †	1.1	0.17	7.08
L900	15D3					0.343	0.001	0.061	0.099				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L002	15D3	0.353	0.60	2.01	1.48	0.59	0.501	0.653	0.458	0.504	1.34 †	0.418	1.54 †
L003	15D3	2.85 †	5.98 †	22 †	15 †					0.45	0.82	0.27	0.95
L004	15D3	2.09 †	0.62	2.62 †	1.36								
L006	15D3					0.568	0.474	0.696	0.462	0.51	0.93	0.34	1.13
L007	15D3	0.33	0.64	2.26	1.14 †								
L009	15D3	0.315	0.63	2.2	1.54	0.573	0.466	0.703	0.48	0.534	0.905	0.359	1.12
L011	15D3	0.29	0.55	1.92	1.42	0.91 †	0.41	0.67	0.873 †	0.569	1.06	0.4	1.27
L012	15D3	0.328	0.63	2	1.46	0.599	0.393	0.637	0.488	0.886 †	1.28 †	0.716 †	1.29
L013	15D3	0.3	0.58	2.1	1.46	0.61	0.49	0.69	0.5	0.57	0.98	0.45 †	1.2
L017	15D3	0.24	0.59	2.37	1.52	0.52	0.42	0.66	0.4	0.55	1.09	0.32	1.33
L019	15D3	0.285	0.60	2.01	1.92 †	0.585	0.49	0.729	0.512	0.479	0.957	0.325	1.06
L026	15D3	0.305	0.62	2.14	1.57	210 †	165 †	256 †	174 †	0.5	0.876	0.328	1.11
L029	15D3	0.322	0.62	1.97	1.46					0.578	1.02	0.368	1.26
L030	15D3	0.29	0.58	2.2	1.47	0.549	0.443	0.676	0.466	0.487	0.876	0.341	1.11
L035	15D3	0.24	0.58	2.08	1.24 †								
L041	15D3	0.28	0.58	2.05	1.46	0.48 †	0.39	0.59	0.4	0.51	0.92	0.34	1.2
L042	15D3	0.32	0.65	2.44	1.68 †	0.59	0.48	0.72	0.49	0.5	0.89	0.3	1.13
L055	15D3	0.28	0.56	2.21	1.42	0.64	0.46	0.68	0.43	0.573	1.07	0.355	1.24
L133	15D3	0.254	0.54	2.5	1 †	0.601	0.350	0.712	0.447	0.46	0.836	0.301	1.03
L135	15D3	0.192 †	0.55	1.99	1.20 †	0.498 †	0.377	0.596	0.421	0.439	0.823	0.294	1.04
L137	15D3	0.297	0.56	2.09	1.52					0.51	0.99	0.354	1.18
L139	15D3	0.32	0.64	2.32	1.37	0.6	0.408	0.789 †	0.497	0.584	1.06	0.335	1.32
L142	15D3	0.32	0.46 †	0.61 †	1.43	0.56	0.47	0.7	0.5	0.56	1.04	0.39	2.61 †
L156	15D3	1.3 †	0.18 †	1.44 †	1.13 †					0.528	0.97	0.501 †	1.37
L158	15D3	0.3	0.56	1.97	1.49	0.56	0.47	0.66	0.41	0.51	0.95	0.35	1.2
L161	15D3	0.312	0.58	2.23	1.51	0.608	0.47	0.666	0.473	0.5	0.94	0.36	1.08
L900	15D3					0.483 †	0.387	0.634	0.444				

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Exchangeable Al — 1M KCl (15G1) cmol+/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L004	15G1	0.058 †	0.02	0.00	0.021								
L009	15G1	0.0014	0.00	0.00	0.009	0.013	0.007	0.0011	0.0010	0.010	0.0015	0.0062	0.001
L011	15G1	0.0061	0.00	0.00	0.017	0.072	0.275 †	0.0097	0.0073	0.078	0.015	0.038	0.0101
L013	15G1					0.11	0.05	0.01 †	0.02	0.15	0.01	0.01	0.01
L019	15G1	0.074 †	0.11 †	0.08 †	0.109 †	0.101	0.093 †	0.034 †	0.043 †	0.086	0.0047	0.0013	0.035
L022	15G1	0.01	0.03	0.00	0.022	0.08	0.03	0.005	0.01	0.04	0.004	0.008	0.005
L026	15G1	0.001	0.00	0.00	0.012	0.116	0.035	0.003	0.041 †	0.066	0.014	0.04	0.051 †
L028	15G1	0.005	0.00	0.00	0.005 †	0.06	0.03	0.015 †	0.015	0.05	0.005	0.05	0.05 †
L030	15G1	0.006	0.01	0.00	0.042 †					0.047	0.001.	0.019	0.001
L036	15G1	0.005	0.01	0.00	0.02	0.045	0.023	0.002	0.002	0.184	0.003	0.084	0.009
L055	15G1	0.005	0.02	0.01	0.02	0.034	0.034	0.002	0.007	0.07	0.002	0.032	0.002
L064	15G1	0.001	0.06	0.00	0.022	0.038	0.041	0.001	0.011	0.128	0.001	0.07	0.003
L133	15G1	0.0033	0.00	0.00	0.017	0.441 †	0.100 †	0.001	0.0057	0.058	0.005	0.024	0.016
L137	15G1	0.03 †	0.05	0.02	0.089 †					0.116	0.01	0.019	0.009
L161	15G1	0.002	0.01	0.00	0.024	0.063	0.018	0.002	0.008	0.08	0.005	0.016	0.015

ab. Code #	Method Codes	Soil sample identification and values for 2009-10: Aluminium — Mehlich3 (18F1) mgAl/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	483	757	792.	760	1307	338	302	483	517	7.6	304	785
L019	18F1	549	866	1060	890	1393	269	209	448	729	165	453	903
L026	18F1	545	742	90.7	826	1411	337	346	486	1005	197	569	1265
L028	18F1	567	824	1033	860	1706	369	140	551	921	15	608	1420
L045	18F1									1162	72.6	811	1500
L091	18F1	9.7 †	2.5 †	3.1	3.8 †								
L097	18F1	398	787	736	870	1191	279	251	383	837	143	528	1068
L143	18F1	502	681	764	781	1049	318	215	360	612	166	508	926
L156	18F1	1104 †	957	1416	1203 †								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Boron — Mehlich3 (18F1) mg B/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	0.33	0.1	0.4	0.33	0.66	0.56	0.88	0.5	0.38	1.77	0.39	4.52
L019	18F1	13 †	11 †	10 †	14 †	0.001	0.001	0.001 †	0.001	0.68	2.3	0.36	6.8
L026	18F1	0.58	0.6	0.95	1	0.432	0.644	0.761	0.975	1	2.31	0.863	6.83
L028	18F1	0.84	0.44	1.06	0.63	0.67	0.34	0.96	0.12	0.12	2.62	0.12	8.1
L045	18F1					3.2 †	2.3 †	2.3 †	1.7	1.8	3.7	1.6	9.6
L097	18F1	0.156	0.04	0.37	0.346	0.068	0.001	0.297	0.07	0.346	1.7	0.288	5.4
L143	18F1	1.2	0.9	1.3	1.3	0.67	0.76	0.93	0.49	0.61	2.21	0.81	6.29
L156	18F1	0.681	0.99	0.75	1.8								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Calcium — Mehlich3 (18F1 mg Ca/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	2157	2570	4141	754	715	485	3997	1051	1591	3609	956	685 †
L019	18F1	2540	2820	4670	853	6.19 †	435	4024	944	2550	6057	1676	929
L026	18F1	2108	2367	3724	787	661	463	4154	1003	2266	5406	1519	880
L028	18F1	1998	2432	4096	708	728	473	4027	1085	2770	4240	1660	905
L045	18F1					808	541	4684	1191	2800	6160	1960	1170 †
L097	18F1	1830	2416	3630	768	577	398	3780	845	2131	3852	1349	777
L143	18F1	2148	2501	4167	786	622	457	3374	793	2024	4858	1493	893
L156	18F1	2828	2494	4504	792								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Copper — Mehlich3 (18F1) mg Cu/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	1.17	1.91	3.48	1.46	0.09	1.15	1.83	2.56	0.76	1.42	1.83	0.46
L019	18F1	0.57	1.3	3	0.955	0.001	1	1.6	2.4	1.5	2.1	3.6	0.8

L026	18F1	1.27	1.87	3.46	1.59	0.076	1.31	1.96	2.55	1.33	2.03	3.48	0.596
L028	18F1	1.4	2.22	4.15	1.54	0.31	1.41	2.27	2.95	1.81	2.49	4.42	0.96
L045	18F1					2.23 †	1.3	2.3	2.7	2.1	2.9	5.2	0.8
L091	18F1	0.147	0.35 †	0.48	0.159								
L097	18F1	0.941	1.8	3	1.6	0.179	0.996	1.6	2.2	1.4	2	3.8	0.599
L143	18F1	1.8	2.3	5.6	2.3	0.96 †	1.98	2.56	2.49	1.84	3.29	4.18	1.83
L156	18F1	2.9	2.1	5.6	2.2								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Iron — Mehlich3 (18F1) mg Fe/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	**ASS 112**	**ASS 113**	**ASS 114**	**ASS 31**	**ASS 32**	**ASS 33**	**ASS 34**	**ASS 51**	**ASS 52**	**ASS 53**	**ASS 54**
L013	M3-Fe	76	198.	137.	185	43	153	59.4	299	210	13.9	157	35.2
L019	M3-Fe	73	188	147	200	39	117	53	273	313	22	286	48
L026	M3-Fe	79	164	118	201	46.4	153	69.3	276	293	19	273	47.5
L028	M3-Fe	89	199	155	210	54	180	95	361	335	26	299	48
L045	M3-Fe					81.6 †	260	146 †	458	448	43.8	474 †	74.3 †
L097	M3-Fe	55	195	110	211	41	129	48	242	299	18	274	44
L143	M3-Fe	69	138	98	162	35.5	146.5	60.3	185	203	27.8	240	42.3
L156	M3-Fe	288 †	176	219	348 †								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Magnesium — Mehlich3 (18F1) mg Mg/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	**ASS 112**	**ASS 113**	**ASS 114**	**ASS 31**	**ASS 32**	**ASS 33**	**ASS 34**	**ASS 51**	**ASS 52**	**ASS 53**	**ASS 54**
L013	18F1	407	615	2477	72.4	636	66.7	174	379	1179	238	116	858 †
L019	18F1	480 †	689	2850	97 †	544	57	159	338	1943	372	210	1181
L026	18F1	407	601	2222	75.1	593	64.1	181	370	1628	325	191	1102
L028	18F1	427	645	2599	67	661	64	186	401	1890	314	195	1150
L045	18F1					703	73	237	430	2150	439	252	1540 †
L091	18F1	1775 †	1640 †	6285 †	411 †								
L097	18F1	378	664	2598	78	581	55	149	327	1804	282	175	1103
L143	18F1	419	631	2602	76	589	63	165	303	1500	331	185	1137

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Manganese — Mehlich3 (18F1) mg Mn/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	168	181	176	247	8.5	162	59.2	366	209	53.3 †	25.1 †	35.7 †
L019	18F1	176	183	219	262 †	6.9	113	52	278	262	85	41	48
L026	18F1	148	161	179	243	8.72	141	59.8	264	228	80.7	43.7	54.6
L028	18F1	157	168	219	243	10	174	78	355	267	90	45	54
L045	18F1					13	236	98.3	408	331	120 †	56 †	78.6 †
L091	18F1	14 †	19 †	19	22 †								
L097	18F1	143	173	174	211 †	6.5	118	52	247	261	83	42	56
L143	18F1	135	126	133	243	7.6	144	58.5	195	197	94.2	40.3	51.2
L156	18F1	203	183	222	323 †								

Lab. Code #	Method Codes	Soil sample identification and values for NOT ASSESSABLE2009-10: Extractable Phosphorus –colour finish — Mehlich3 (18F2) mg P/kgNOT ASSESSABLE											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L019	18F2	26	20	64	126	0.315	16	93	6.7	17	46	96	1.1

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Phosphorus - ICP — Mehlich3 (18F1) mg P/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	28.66	24.8	44.2	120.3	0.16	42.46	94.96	11.87	19.05	33.68	64.63 †	3.2
L019	18F1	37	22	68	133	1.3	35	98	11	23	54	118	6.5
L023	18F1	0.0358 †	0.03 †	0.07	0.072 †								
L026	18F1	34.3	25.4	55.6	123	0.017	40.3	97.6	11.7	26.6	63.6	128	0.056
L028	18F1	40	30	70	139	1.5	46	104	13	26	55	132	1.5
L045	18F1					1.1	55.5	136 †	16.3	33.8	83.9	204 †	3.2
L097	18F1	28	27	52	134	0.345	36	85	9.6	25	44	112	0.879
L143	18F1	30	16	42	117	0.4	37.7	89.3	7.1	13.3	54	117.6	0.8

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Potassium — Mehlich3 (18F1) mg K/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	116	236	711	553	244	211	309	196	122	304	92.1	315
L019	18F1	130 †	245	857	643	196	176	254	177	194	401	147	430
L026	18F1	112	226	746	580	218	194	281	189	188	392	136	431
L028	18F1	114	231	758	520	222	206	298	202	204	416	184	474
L045	18F1					249	217	315	214	203	429	166	531
L097	18F1	97 †	220	647	612	192	167	244	163	169	347	127	380
L143	18F1	114	195	741	647	195	179	245	151	158	382	141	446
L156	18F1	321 †	118 †	870	570								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Sodium — Mehlich3 (18F1) mg Na/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	9.84	41.0	204.	29.51	100.7	16.19	26.65	56.35	256.86	217.15	37.64	1047.6 †
L019	18F1	10	30	220	21	112	2.5	19	54	379	289	52	1628
L026	18F1	7.9	33.2	191	25.8	104	8.58	21.4	34.2	359	277	45.8	1669
L028	18F1	5	38	198	23	107	5	22	34	352	260	55	1690
L045	18F1					118	11.3	26.9	40.4	374	300	48.5	2040 †
L097	18F1	6.8	33	166	27	95	5.8	18	30	328	241	43	1490
L143	18F1	19	49	247	38	130	28	42	51	315	287	66	1635

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Sulphur — Mehlich3 (18F1) mg S/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L019	18F1	19	24	27	54	53	11	18	12	33	101	36	81
L026	18F1	15	19	18.3	45	62	13	21	11	30	98	34	89
L028	18F1	18	22	21	47	71	14	20	13	37	104	42	99
L045	18F1					76	13	20	13	44	126	49	120
L097	18F1	13	20	17	48	52	11	16	9.2	29	85	32	78
L143	18F1	15	18	19	49	48	13	18	9.1	26	95	33	70
L156	18F1	72 †	71 †	75 †	77 †								

Lab. Code #	Method Codes	Soil sample identification and values for 2009-10: Extractable Zinc — Mehlich3 (18F1) mg Zn/kg											
		November 2009 (Round 209)				*March 2010 (Round 409)*				*May 2010 (Round 609)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L013	18F1	5.25	1.59	1.5	3.08	0.2	3.45	4.94	2.7	1.88	0.82	7.18	0.16
L019	18F1	5.3	0.93 †	0.94	2.5	0.001	2.4	3.8	2.2	2.4	0.89	13	0.01
L026	18F1	4.96	1.65	1.61	3.11	0.154	3.23	4.84	2.43	2.89	1.21	12.3	0.149
L028	18F1	5.15	1.61	1.83	2.76	0.32	3.52	5.98	2.86	3.65	1.71	14.8	0.35
L045	18F1					0.43	4.6 †	7.5	2.7	3.5	1.7	17.1	0.001
L091	18F1	42 †	43 †	58 †	16 †								
L097	18F1	4.3	1.7	1.5	3.5	0.226	2.7	4.1	2.2	2.8	1.3	11	0.267
L143	18F1	4.9	1.5	1.8	3.2	0.24	3.33	4.93	1.92	2.56	1.81	12.1	1.53 †
L156	18F1	1.7 †	5.7 †	4.1 †	2.5								

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