Australasian Soil and Plant Analysis Council Inc.

ASPAC Soil Proficiency Testing Program Report

2008-09

G.E. Rayment, D.J. Lyons, R.J. Hill, B.K. Daly and J. Marsh

February 2014

ISSN # 1445-5234

An appropriate citation for this report is:

Rayment, G.E., Lyons, D.J., Hill, R.J., Daly, B.K. and Marsh, J. (2014). *ASPAC Soil Proficiency Testing Program Report 2008-09.* 74 + vi pp. ASPAC, Melbourne, Victoria.

File: Soil ASPAC Annual Report 2008-09_GER_rev1

Foreword

This is the latest of ASPAC's many inter-laboratory proficiency program (ILPP) reports for soils since 1993. It is the fourth 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.

Ms Teresa Fowles
ASPAC Chairperson

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) 2008-09

Names	*Locations*	*Current Emails*
R.J. Hill (Convenor)	Hamilton, NZ	roger@hill-labs.co.nz
G.E. Rayment	Queensland	raymeng@optusnet.com.au
B.K. Daly	Palmerston North, NZ	bbdaly@inspire.net.nz
D.J. Lyons	Queensland	daveandtrish8@bigpond.com

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.

Contents

Page

YOUR NOTES

1. Introduction

This not-for-profit, annual ASPAC Soil Proficiency Testing Program Report for 2008-09 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 2008-09. 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 usually 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 2008-09, while those that reported results varied by "round" and soil test (see Table 1). Contact details for the 55 laboratories that submitted results for at least one soil test are provided in Appendix 1. There were 37 from Australia (NSW=13; QLD=7; VIC=6; WA=5; SA=3; TAS=2; ACT=1), 5 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 England.

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 2008-09 soil ILPP

2008-09 Soil Tests	Method Codes†	Number of participants		
		Nov 08	Mar 09	May 09
Electrical conductivity 1:5 soil-water	3A1	44	40	44
Soil pH, 1:5 soil-water	4A1	47	41	45
Soil pH, 1:5 0.01 M $CaCl_2$ — direct	4B1	17	14	15
Soil pH, 1:5 0.01 M $CaCl_2$ — indirect	4B2	20	18	23
Water soluble Cl — potentiometric	5A1	26	23	23
Water soluble Cl — autocolour	5A2	2	6	6
Organic C —W&B	6A1	28	27	30
Organic C — Other		2	1	1
Total Organic C — Heanes	6B1	4	3	3
Total Organic C — Dumas	6B2 + 6B3	11	11	15
Total Organic C — Other		2	2	0
Total N — Kjeldahl, steam distillation	7A1	25	22	25
Total N — Kjeldahl, autocolour	7A2	2	2	3
Total N – Dumas	Dumas	12	10	10
Water Soluble Nitrate N — autocolour	7B1	14	16	14
KCl Extractable Nitrate N — autocolour	7C2	19	14	19
KCl Ext. Ammonium N — autocolour	7C2	22	18	21
Total P – all methods	9A1 and others	31	18	19
Colwell Extractable P — manual + autocolour	9B1 + 9B2	24	25	22
Olsen Extractable P — manual + autocolour	9C1 + 9C2	25	22	27
Bray-1 Extractable P — manual + autocolour	9E1 + 9E2	11	11	13
Phosphorus buffer index (with Colwell P)	9I2a + 9I2b + 9I2c	9	9	10
Phosphorus buffer index (with Olsen P)	9I3a + 9I3b + 9I3c	3	3	4
Phosphate Extractable S	10B3	6	6	6
KCl_{40} Extractable S	Blair *et al*	9	12	9
DTPA Extractable Fe	12A1	32	32	34
DTPA Extractable Cu	12A1	32	31	33
DTPA Extractable Mn	12A1	30	31	32
DTPA Extractable Zn	12A1	32	31	33
Hot $CaCl_2$ Extractable B — manual colour	12C1	3	2	2
Hot $CaCl_2$ Extractable B — ICPAES	12C2	19	17	21
Exchangeable Ca — 1M NH_4Cl extract	15A1	17	19	18
Exchangeable Mg — 1M NH_4Cl extract	15A1	16	19	18
Exchangeable Na — 1M NH_4Cl extract	15A1	16	19	18
Exchangeable K — 1M NH_4Cl extract	15A1	17	18	19
Exchangeable Ca — 1M NH_4OAc extract	15D3	26	19	24
Exchangeable Mg — 1M NH_4OAc extract	15D3	25	19	24
Exchangeable Na — 1M NH_4OAc extract	15D3	25	18	23

2008-09 Soil Tests	Method Codes†	Number of participants		
		Nov 08	Mar 09	May 09
Exchangeable K — 1M NH_4OAc extract	15D3	26	19	24
Exchangeable Al — 1M KCl extract	15G1	17	14	16
Mehlich 3 Extractable B	18F1	5	6	6
Mehlich 3 Extractable Ca	18F1	8	8	9
Mehlich 3 Extractable Cu	18F1	8	8	10
Mehlich 3 Extractable Al	18F1	7	8	8
Mehlich 3 Extractable Fe	18F1	7	8	9
Mehlich 3 Extractable S	18F1	6	7	7
Mehlich 3 Extractable Mg	18F1	8	7	9
Mehlich 3 Extractable Mn	18F1	8	8	10
Mehlich 3 Extractable P – Colour finish	18F2	1	0	2
Mehlich 3 Extractable P – ICP finish	18F1	7	8	8
Mehlich 3 Extractable K	18F1	8	8	9
Mehlich 3 Extractable Na	18F1	7	7	7
Mehlich 3 Extractable Zn	18F1	8	8	10

† 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. Mehlich-3 tests and the KCl_{40} Extractable S test of Blair *et al.* (1991)[5] are described. *The authors' believe some laboratory managers may have incorrectly coded method/s they used for Total N, as dominant use of steam distillation as the analytical finish is unlikely.*

were 44 and 43, 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, Total Organic C — Other, Organic C — Other, Hot $CaCl_2$ Extractable B — manual colour , Total N — Kjeldahl, autocolour, and P buffer index (with Olsen P). For these, the average number of participating laboratories across the three "rounds" ranged from 1 to 3. The median participation rate for all of the listed tests was 14.

2.3 Tests and methods

The three proficiency "rounds" for soils – each comprised of four samples – were offered in November 2008, March 2009 and May 2009. 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.

[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.

[5] Blair, G.J., Chinoim, N., Lefroy, R.D.B., Anderson, G.C., and Crocker, G.J. (1991). A soil sulfur test for pastures and crops. *Aust. J. Soil Research*. **29**, 619-626.

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 (40°C) soil-weight basis.

2.4 Sample preparation and identification

In common with practices documented for the 2004-05 soils' program and since, 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)[6]. These sub-samples were then tested in duplicate for Total N by Dumas Combustion. Test methods included Total N, Total C (both by Leco combustion) and Olsen P (method 9C).

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[7].

Ultimately, the samples used in the three "rounds" of the 2008-09 program were distributed and coded as follows: November 2008 (Round 208) — ASS 111-114; March 2009 (Round 408) — ASS 31-34; and May 2009 (Round 608) — 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 2008-09 soil ILPP

Sample ID	*Sample origin*	*Sample ID*	*Sample origin*
ASS 111	Victoria	ASS 33	New South Wales
ASS 112	Queensland	ASS 34	North America
ASS 113	Queensland	ASS 51	North America
ASS 114	New Zealand	ASS 52	Queensland
ASS 31	New South Wales	ASS 53	New South Wales
ASS 32	New South Wales	ASS 54	Tasmania

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

---

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

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

proficiency programs of Wageningen University. This procedure[8,9,10,11] is suited to datasets of as few as six 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 2008-09 soil ILPP each received from the Service Provider (on behalf of ASPAC) a laboratory specific, confidential, annual summary report. Each laboratory's data for the 12 soil samples, the aggregate data from all participants, other relevant statistical data, and whether or not the test/s received ASPAC Certification (if applicable) were provided. The laboratory code number was included.

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.

---

8 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.

9 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.

10 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.

11 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[12]. 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[13]	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 1 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.

12 SAS Procedure Guide.

13 "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.

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 2008-09. 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.

2004-05: Electrical conductivity 1:5 soil-water (3A1) dS/m

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	40	40	40	40	44	44	44	44
Minimum	0.06	0.18	0.074	0.088	0.024	0.012	0.007	0.063	0.076	0.042	0.053	0.079
Maximum	77.6	281	1.1	0.9	0.26	0.153	0.65	0.677	0.15	0.09	0.19	0.25
Median i	0.12	0.32	0.591	0.793	0.214	0.116	0.063	0.621	0.095	0.066	0.08	0.192
Mean i	1.88	6.71	0.587	0.764	0.211	0.112	0.078	0.602	0.097	0.067	0.083	0.19
MAD i	0.005	0.012	0.037	0.045	0.014	0.006	0.005	0.020	0.006	0.005	0.005	0.011
IQR i	0.008	0.021	0.054	0.07	0.023	0.01	0.007	0.033	0.009	0.007	0.01	0.019
Robust CV % i	7	6.6	9.1	8.9	11	8.1	12	5.3	9.6	11	13	9.9
Median f	0.12	0.318	0.592	0.8	0.215	0.116	0.063	0.624	0.0932	0.0651	0.0801	0.191
Mean f	0.119	0.316	0.592	0.798	0.216	0.115	0.064	0.622	0.095	0.066	0.081	0.194
MAD f	0.005	0.013	0.036	0.037	0.015	0.005	0.003	0.015	0.006	0.005	0.003	0.011
IQR f	0.007	0.019	0.05	0.059	0.024	0.008	0.006	0.027	0.007	0.007	0.005	0.015
Robust CV % f	5.6	6.1	8.5	7.4	11	7	9.1	4.4	8	11	6	7.8
Outliers	4	6	3	3	1	3	4	3	4	4	4	5
Stragglers	0	0	0	0	0	0	4	1	0	2	4	0

2008-09: Soil pH, 1:5 soil-water (4A1)

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	47	47	47	47	41	41	41	41	45	45	45	45
Minimum	4.36	4.36	7.31	5.23	5.49	5.15	4.5	8.56	5.6	5.2	5.02	4.99
Maximum	6.01	6.4	8.5	6.71	6.51	6.44	5.7	10.34	6.96	7.07	7.03	7.14
Median i	5.44	5.14	8.31	6.44	6.2	6.2	5.48	9.91	6.42	6.09	5.86	6.32
Mean i	5.4	5.13	8.27	6.41	6.2	6.19	5.44	9.88	6.39	6.08	5.86	6.28
MAD i	0.09	0.06	0.11	0.06	0.1	0.1	0.09	0.09	0.12	0.1	0.06	0.08
IQR i	0.156	0.074	0.148	0.104	0.142	0.159	0.152	0.156	0.174	0.163	0.1	0.141
Robust CV % i	2.9	1.4	1.8	1.6	2.3	2.6	2.8	1.6	2.7	2.7	1.7	2.2
Median f	5.47	5.17	8.32	6.44	6.2	6.22	5.49	9.94	6.45	6.1	5.86	6.32
Mean f	5.48	5.16	8.3	6.45	6.22	6.22	5.46	9.94	6.43	6.11	5.88	6.31
MAD f	0.05	0.05	0.1	0.06	0.096	0.1	0.09	0.085	0.08	0.09	0.05	0.06
IQR f	0.082	0.082	0.148	0.089	0.135	0.159	0.133	0.141	0.111	0.141	0.070	0.089
Robust CV % f	1.5	1.6	1.8	1.4	2.2	2.6	2.4	1.4	1.7	2.3	1.2	1.4
Outliers	7	6	2	4	1	1	1	5	6	6	12	5
Stragglers	6	2	0	0	0	0	0	0	2	0	0	1

2008-09: Soil pH, 1:5 0.01 M $CaCl_2$ — direct (4B1)

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	14	14	14	14	15	15	15	15
Minimum	4.79	4.6	7.34	5.97	5.24	5.18	4.51	7.90	5.6	5	4.8	5.21
Maximum	6.96	4.85	7.85	6.41	5.81	5.76	4.838	8.7	6.43	6.27	6.25	6.37
Median i	5.02	4.77	7.63	6.23	5.7	5.54	4.70	8.36	5.78	5.18	5.02	5.38
Mean i	5.12	4.74	7.63	6.2	5.66	5.51	4.69	8.37	5.85	5.31	5.14	5.49
MAD i	0.06	0.03	0.08	0.05	0.07	0.06	0.075	0.125	0.1	0.03	0.09	0.06
IQR i	0.093	0.096	0.17	0.111	0.133	0.12	0.12	0.165	0.163	0.067	0.133	0.089
Robust CV % i	1.8	2	2.2	1.8	2.3	2.2	2.6	2	2.8	1.3	2.7	1.7
Median f	5.01	4.79	7.63	6.23	5.7	5.55	4.7	8.36	5.74	5.18	5.02	5.35
Mean f	5	4.79	7.63	6.23	5.7	5.54	4.69	8.37	5.77	5.18	5.03	5.36
MAD f	0.04	0.015	0.08	0.036	0.07	0.05	0.075	0.125	0.09	0.01	0.04	0.05
IQR f	0.069	0.023	0.17	0.052	0.111	0.093	0.12	0.165	0.148	0.022	0.045	0.085
Robust CV % f	1.4	0.48	2.2	0.83	2	1.7	2.6	2	2.6	0.43	0.89	1.6
Outliers	2	3	0	2	1	1	0	0	2	5	2	2
Stragglers	1	2	0	2	0	0	0	0	0	1	2	0

2008-09: Soil pH, 1:5 0.01 M $CaCl_2$ — indirect (4B2)

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	20	20	20	20	17	18	18	18	23	23	23	23
Minimum	4.7	4.6	6.2	4.77	5.5	5.39	4.55	8.14	5.57	4.99	4.87	5.23
Maximum	5.9	6.08	8.07	6.5	6.07	6.02	4.94	9.55	7.3	7	6.5	6.5
Median i	5.01	4.81	7.77	6.18	5.7	5.57	4.72	8.70	5.78	5.19	5.05	5.41
Mean i	5.04	4.89	7.68	6.13	5.73	5.59	4.73	8.71	5.82	5.25	5.09	5.48
MAD i	0.08	0.075	0.1	0.08	0.06	0.06	0.06	0.225	0.04	0.03	0.08	0.06
IQR i	0.119	0.122	0.18	0.115	0.104	0.096	0.076	0.397	0.074	0.06	0.111	0.082
Robust CV % i	2.4	2.5	2.3	1.9	1.8	1.7	1.6	4.6	1.3	1.2	2.2	1.5
Median f	5.01	4.8	7.77	6.17	5.7	5.56	4.72	8.7	5.78	5.2	5.03	5.41
Mean f	5.02	4.79	7.76	6.17	5.7	5.56	4.73	8.71	5.78	5.18	5.03	5.41
MAD f	0.075	0.05	0.09	0.05	0.055	0.06	0.06	0.225	0.02	0.02	0.072	0.055
IQR f	0.119	0.078	0.185	0.096	0.091	0.082	0.076	0.397	0.03	0.048	0.111	0.080
Robust CV % f	2.4	1.6	2.4	1.6	1.6	1.5	1.6	4.6	0.52	0.78	2.2	1.5
Outliers	1	1	1	1	1	1	0	0	3	5	1	3
Stragglers	1	2	0	2	0	0	0	0	3	1	0	0

2008-09: Water soluble Cl — potentiometric (5A1) mg Cl/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	23	23	23	23	23	23	23	23
Minimum	9.9	1	36	2	0.079	0.586	0.112	33.5	7	7.3	3.5	10
Maximum	130	130	115	54.5	80.7	70.9	78.7	344	60	63	40	100
Median i	85.5	22.5	69.0	18.4	22	13.9	16	123	17.3	12.9	7.4	36
Mean i	83.6	30.9	74.1	22.7	26.2	21	22.9	130	20.7	18.5	12	38
MAD i	9.5	5.75	14.5	7.5	4.1	4.67	6	15	4	2.9	3.2	5.7
IQR i	17.6	10.2	16.9	10.9	7.78	7.86	10.5	23.7	7.41	4.45	8.9	8.67
Robust CV % i	21	45	24	59	35	57	66	19	43	34	120	24
Median f	86	21	69.1	18.1	22	11	15	123	17.2	12	7.3	35.5
Mean f	86.2	22.8	74.1	20.4	22.9	12.2	15.1	121	18.9	12.3	8.93	34.2
MAD f	6	4.3	14.5	7	3.75	3	5	10	3.95	2	2.85	4.6
IQR f	11.1	7.12	16.9	9.23	6.76	6.32	7.41	13.3	6.36	3.71	6.17	6.06
Robust CV % f	13	34	24	51	31	57	49	11	37	31	85	17
Outliers	2	4	0	1	3	4	4	4	1	4	2	4
Stragglers	3	1	0	1	0	0	0	0	0	0	1	1

2008-09: Water soluble Cl — pooled (5A1 + 5A2) mg Cl/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	29	29	29	29	29	29	29	29
Minimum	9.9	1	36	2	0.079	0.586	0.112	33.5	7	7.3	3.5	10
Maximum	130	130	115	54.5	80.7	70.9	78.7	344	60	63	40	100
Median i	84.7	23.9	68.0	18.4	22	11	15.9	119	17.3	12.9	9.4	36
Mean i	82.8	30.6	73.3	22.5	26.6	19.8	21.4	134	20.3	17.9	11.4	37.9
MAD i	9.7	5.5	12.4	7	4.1	4	5.9	15.1	3.7	2.9	4.48	5.7
IQR i	16.8	8.52	17.4	10.4	8.04	9.03	10.5	27.8	6.63	4.97	7.82	8.67
Robust CV % i	20	36	26	57	37	82	66	23	38	39	83	24
Median f	84.4	22.2	68.1	18	22	10	14	116	17.1	11.1	7.35	36
Mean f	82.2	23.1	73.3	19.5	22.3	10.9	15.2	118	18.4	12.2	8.98	35
MAD f	9.4	4.2	12.4	4.4	2.85	2.79	4	12	3.4	1.8	2.7	4.85
IQR f	16	6.67	17.4	8.56	5.28	4.39	8.52	17.8	5.93	3.19	5.28	6.89
Robust CV % f	19	30	26	48	24	44	61	15	35	29	72	19
Outliers	3	5	0	2	4	6	4	5	2	4	2	4
Stragglers	0	0	0	1	1	1	0	1	0	2	1	1

2008-09: Organic Carbon — W&B (6A1) %C

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	27	27	30	30	30	30
Minimum	0.594	1.88	0.67	3.72	2.07	0.866	1.33	0.425	1.94	1.13	0.915	1.18
Maximum	3.01	3.98	1.99	6.24	4.3	1.89	2.84	3.25	3.91	4.56	3.93	2.78
Median i	0.7	2.150	1.155	4.71	3.39	1.33	1.88	0.54	2.46	1.52	1.35	1.76
Mean i	0.82	2.25	1.21	4.8	3.4	1.33	1.95	0.69	2.58	1.63	1.43	1.79
MAD i	0.062	0.131	0.095	0.24	0.25	0.12	0.16	0.063	0.19	0.145	0.12	0.145
IQR i	0.108	0.191	0.13	0.502	0.385	0.178	0.237	0.126	0.339	0.226	0.169	0.241
Robust CV % i	15	8.9	11	11	11	13	13	23	14	15	12	14
Median f	0.681	2.14	1.15	4.7	3.4	1.33	1.84	0.53	2.44	1.52	1.35	1.76
Mean f	0.695	2.13	1.17	4.75	3.45	1.33	1.84	0.546	2.48	1.53	1.35	1.77
MAD f	0.048	0.11	0.065	0.21	0.25	0.117	0.09	0.052	0.16	0.14	0.11	0.14
IQR f	0.083	0.178	0.113	0.319	0.364	0.173	0.141	0.080	0.245	0.215	0.152	0.222
Robust CV % f	12	8.3	9.9	6.8	11	13	7.7	15	10	14	11	13
Outliers	4	3	4	2	1	1	3	3	3	1	1	2
Stragglers	0	0	0	1	0	1	3	0	0	0	1	0

2008-09: Organic Carbon — pooled (6A1 + other) %C

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	30	30	30	30	28	28	28	28	31	31	31	31
Minimum	0.594	1.88	0.67	3.72	2.07	0.866	1.33	0.425	1.94	1.13	0.915	1.18
Maximum	3.01	3.98	1.99	6.24	4.3	1.89	2.84	3.25	3.91	4.56	3.93	2.78
Median i	0.707	2.16	1.17	4.71	3.4	1.34	1.88	0.544	2.45	1.53	1.35	1.73
Mean i	0.82	2.26	1.24	4.8	3.4	1.34	1.95	0.698	2.57	1.63	1.42	1.78
MAD i	0.065	0.13	0.095	0.265	0.25	0.124	0.16	0.067	0.19	0.15	0.11	0.13
IQR i	0.117	0.191	0.15	0.536	0.372	0.183	0.23	0.139	0.356	0.222	0.156	0.23
Robust CV % i	17	8.8	13	11	11	14	12	26	15	15	12	13
Median f	0.691	2.14	1.15	4.71	3.41	1.33	1.88	0.53	2.44	1.53	1.35	1.73
Mean f	0.705	2.15	1.17	4.78	3.45	1.32	1.88	0.546	2.47	1.53	1.35	1.77
MAD f	0.060	0.13	0.065	0.24	0.24	0.12	0.115	0.052	0.17	0.14	0.11	0.13
IQR f	0.085	0.178	0.113	0.469	0.347	0.178	0.191	0.080	0.261	0.211	0.148	0.215
Robust CV % f	12	8.3	9.9	10	10	13	10	15	11	14	11	12
Outliers	3	3	5	1	1	1	3	4	3	1	2	2
Stragglers	1	0	1	1	0	0	1	0	0	0	0	0

2008-09: Total Organic Carbon — Dumas (6B2+6B3) %C

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	11	11	11	11	11	11	11	11	15	15	15	15
Minimum	0.415	1.88	1.17	3.46	3.04	0.96	2.15	0.35	2.23	1.28	0.92	1.33
Maximum	0.855	2.57	1.84	5.52	4	2.31	4.01	4.17	3.15	2.57	1.88	2.03
Median i	0.803	2.44	1.5	5.3	3.84	1.46	2.46	2.73	2.79	1.65	1.39	1.88
Mean i	0.753	2.39	1.56	5.1	3.75	1.46	2.57	2.46	2.75	1.66	1.39	1.82
MAD i	0.017	0.05	0.22	0.14	0.09	0.06	0.16	1.44	0.075	0.05	0.081	0.07
IQR i	0.023	0.082	0.311	0.245	0.163	0.074	0.245	2.57	0.126	0.119	0.127	0.119
Robust CV % i	2.9	3.3	21	4.6	4.2	5.1	9.9	94	4.5	7.2	9.1	6.3
Median f	0.816	2.45	1.5	5.32	3.88	1.48	2.43	2.73	2.81	1.66	1.39	1.9
Mean f	0.816	2.45	1.56	5.27	3.82	1.48	2.42	2.46	2.79	1.64	1.38	1.91
MAD f	0.016	0.05	0.22	0.14	0.08	0.045	0.13	1.44	0.055	0.04	0.08	0.05
IQR f	0.021	0.080	0.311	0.204	0.154	0.063	0.226	2.57	0.095	0.062	0.112	0.089
Robust CV % f	2.6	3.3	21	3.8	4	4.3	9.3	94	3.4	3.7	8	4.7
Outliers	2	1	0	1	1	3	1	0	3	3	2	2
Stragglers	0	0	0	0	0	0	0	0	0	0	0	1

2008-09: Total Organic Carbon — pooled (6B1 + 6B2 + 6B3 + Other) %C

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	18	18	18	18
Minimum	0.415	1.88	1.17	0.98	3.04	0.96	2.15	0.35	1.66	1.28	0.92	1.33
Maximum	2.4	4.9	2.5	5.8	4.1	2.31	4.01	4.17	3.15	2.57	1.88	2.54
Median i	0.816	2.45	1.48	5.21	3.77	1.45	2.4	1.22	2.75	1.65	1.38	1.87
Mean i	0.921	2.67	1.58	4.9	3.72	1.45	2.5	2.03	2.66	1.67	1.38	1.86
MAD i	0.024	0.06	0.24	0.19	0.145	0.05	0.095	0.799	0.12	0.05	0.085	0.065
IQR i	0.040	0.111	0.322	0.319	0.217	0.087	0.167	2.55	0.208	0.087	0.125	0.101
Robust CV % i	5	4.5	22	6.1	5.8	6	6.9	210	7.5	5.3	9.1	5.4
Median f	0.816	2.45	1.48	5.3	3.81	1.45	2.4	1.22	2.78	1.65	1.38	1.89
Mean f	0.817	2.45	1.58	5.26	3.81	1.46	2.4	2.03	2.75	1.63	1.38	1.9
MAD f	0.016	0.055	0.24	0.14	0.105	0.04	0.08	0.799	0.075	0.041	0.08	0.035
IQR f	0.030	0.085	0.322	0.245	0.159	0.067	0.141	2.55	0.139	0.058	0.112	0.074
Robust CV % f	3.6	3.5	22	4.6	4.2	4.6	5.9	210	5	3.5	8.1	3.9
Outliers	4	3	0	2	2	3	1	0	2	4	2	3
Stragglers	0	0	0	0	0	0	0	0	2	0	0	1

2008-09: Total N — Kjeldahl, steam distillation (7A1) %N

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	22	22	22	22	25	25	25	25
Minimum	0.022	0.081	0.002	0.142	0.046	0.070	0.039	0.007	0.017	0.016	0.027	0.033
Maximum	0.12	0.32	0.203	0.6	0.413	0.273	0.133	0.091	0.25	0.143	0.15	0.38
Median i	0.064	0.22	0.09	0.5	0.296	0.115	0.099	0.062	0.229	0.114	0.118	0.159
Mean i	0.066	0.218	0.093	0.496	0.29	0.123	0.101	0.062	0.213	0.109	0.113	0.156
MAD i	0.006	0.007	0.01	0.024	0.014	0.007	0.009	0.007	0.011	0.009	0.006	0.012
IQR i	0.009	0.011	0.015	0.039	0.020	0.010	0.012	0.011	0.014	0.013	0.011	0.022
Robust CV % i	14	5.1	16	7.8	6.9	8.9	13	17	5.9	12	9.1	14
Median f	0.064	0.222	0.09	0.5	0.296	0.112	0.099	0.061	0.23	0.116	0.118	0.16
Mean f	0.066	0.221	0.090	0.507	0.296	0.114	0.103	0.062	0.228	0.116	0.119	0.156
MAD f	0.005	0.007	0.01	0.023	0.012	0.006	0.007	0.006	0.01	0.009	0.006	0.011
IQR f	0.009	0.01	0.014	0.033	0.019	0.009	0.012	0.010	0.015	0.013	0.01	0.020
Robust CV % f	14	4.5	15	6.6	6.4	8.1	12	16	6.7	12	8.5	12
Outliers	2	3	3	2	2	4	1	3	3	2	3	3
Stragglers	0	0	0	0	0	0	1	0	0	0	0	0

2008-09: Total N — part-pool (7A1 + 7A2) %N

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	24	24	24	24	28	28	28	28
Minimum	0.022	0.081	0.002	0.142	0.046	0.070	0.039	0.007	0.017	0.016	0.027	0.033
Maximum	0.12	0.32	0.203	0.6	0.413	0.273	0.133	0.091	0.25	0.166	0.15	0.38
Median i	0.064	0.220	0.090	0.500	0.296	0.115	0.099	0.063	0.225	0.115	0.118	0.160
Mean i	0.066	0.218	0.094	0.496	0.29	0.122	0.101	0.062	0.21	0.111	0.113	0.159
MAD i	0.006	0.007	0.01	0.024	0.014	0.007	0.007	0.007	0.008	0.009	0.006	0.012
IQR i	0.009	0.011	0.015	0.037	0.021	0.010	0.012	0.010	0.016	0.014	0.010	0.021
Robust CV % i	14	5.1	16	7.4	7	8.7	13	16	6.9	12	8.2	13
Median f	0.064	0.222	0.09	0.5	0.296	0.112	0.098	0.062	0.23	0.116	0.118	0.16
Mean f	0.066	0.222	0.091	0.506	0.295	0.113	0.099	0.062	0.227	0.116	0.118	0.155
MAD f	0.005	0.008	0.01	0.023	0.012	0.006	0.004	0.006	0.011	0.008	0.005	0.011
IQR f	0.009	0.011	0.015	0.034	0.019	0.009	0.009	0.009	0.014	0.011	0.007	0.018
Robust CV % f	14	4.9	16	6.8	6.3	8.5	9.5	14	6.1	9.6	6.3	11
Outliers	2	3	3	2	2	4	4	2	4	3	4	4
Stragglers	0	0	0	0	0	0	2	1	0	0	1	0

2008-09: Total N – Dumas %N

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	10	10	10	10	10	10	10	10
Minimum	0.06	0.21	0.06	0.46	0.24	0.09	0.09	0.055	0.2	0.08	0.092	0.138
Maximum	0.450	0.622	0.464	0.912	0.359	0.176	0.158	0.63	0.27	0.16	0.15	0.217
Median i	0.070	0.239	0.097	0.539	0.298	0.118	0.104	0.067	0.229	0.117	0.128	0.167
Mean i	0.109	0.272	0.128	0.567	0.299	0.126	0.112	0.126	0.229	0.117	0.124	0.171
MAD i	0.010	0.011	0.005	0.015	0.007	0.009	0.006	0.007	0.009	0.010	0.010	0.013
IQR i	0.029	0.015	0.011	0.037	0.012	0.022	0.018	0.025	0.015	0.016	0.019	0.019
Robust CV % i	41	6.3	11	6.9	4	18	17	37	6.5	14	15	11
Median f	0.066	0.236	0.097	0.536	0.298	0.116	0.103	0.061	0.229	0.117	0.128	0.167
Mean f	0.068	0.240	0.096	0.537	0.299	0.116	0.102	0.063	0.229	0.117	0.124	0.171
MAD f	0.004	0.013	0.003	0.007	0.007	0.005	0.003	0.004	0.009	0.010	0.010	0.013
IQR f	0.006	0.013	0.006	0.016	0.010	0.012	0.006	0.006	0.015	0.016	0.019	0.019
Robust CV % f	9.6	5.3	5.7	3	3.4	9.9	6.3	9.7	6.5	14	15	11
Outliers	2	1	3	2	2	1	2	1	0	0	0	0
Stragglers	2	0	0	1	0	1	0	2	0	0	0	0

2008-09: Total N — full-pool (7A1 + 7A2 + Dumas) %N

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	39	39	39	39	34	34	34	34	38	38	38	38
Minimum	0.022	0.081	0.002	0.142	0.046	0.070	0.039	0.007	0.017	0.016	0.027	0.033
Maximum	0.450	0.622	0.464	0.912	0.413	0.273	0.158	0.630	0.270	0.166	0.150	0.380
Median i	0.066	0.224	0.093	0.520	0.297	0.117	0.101	0.064	0.227	0.115	0.119	0.160
Mean i	0.080	0.235	0.104	0.518	0.292	0.123	0.104	0.081	0.215	0.113	0.116	0.162
MAD i	0.006	0.011	0.008	0.029	0.011	0.008	0.008	0.007	0.010	0.010	0.007	0.013
IQR i	0.012	0.018	0.013	0.042	0.017	0.012	0.012	0.011	0.014	0.014	0.012	0.020
Robust CV % i	18	7.9	14	8	5.6	10	11	18	6.2	12	10	12
Median f	0.065	0.224	0.092	0.520	0.296	0.115	0.100	0.062	0.229	0.116	0.120	0.160
Mean f	0.066	0.226	0.093	0.517	0.294	0.115	0.100	0.062	0.226	0.116	0.120	0.158
MAD f	0.005	0.011	0.008	0.028	0.008	0.005	0.005	0.006	0.010	0.008	0.007	0.011
IQR f	0.007	0.017	0.011	0.041	0.013	0.009	0.008	0.009	0.013	0.012	0.011	0.017
Robust CV % f	11	7.4	12	7.9	4.3	7.7	7.8	14	5.7	10	9	11
Outliers	6	5	7	2	5	6	4	5	5	4	5	5
Stragglers	1	0	0	0	0	1	4	1	0	1	0	0

2008-09: Water Soluble Nitrate N— autocolour (7B1) mg N/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	16	16	16	16	14	14	14	14
Minimum	16	3.2	11	60	0.88	21.9	6.2	3	0.01	3.8	6.6	7.41
Maximum	22	22.4	70.2	430	59.7	41.4	13.2	56.7	8.4	8.4	16	19.2
Median i	19	13.0	54.7	362	46.7	29	7.35	7.1	0.815	4.43	10.6	10.6
Mean i	19.2	12.6	52.8	326	42.7	29.2	7.96	10.2	1.3	4.77	11	11.2
MAD i	1.25	2.4	5.35	39	4.01	2.8	0.75	0.35	0.587	0.49	1.33	1.09
IQR i	2.15	3.13	7.47	84.7	6.38	4.61	1.74	0.606	0.747	0.808	1.58	1.91
Robust CV % i	11	24	14	23	14	16	24	8.5	92	18	15	18
Median f	19	13	55	372	47.2	29	7.2	7.1	0.629	4.25	10.6	10.2
Mean f	19.2	12.6	56	361	47.6	28.3	7.61	7.16	0.753	4.39	11	10.2
MAD f	1.25	2.4	5	30	2.8	2.6	0.8	0.14	0.441	0.315	1.33	0.85
IQR f	2.15	3.13	6.6	52.3	4.67	3.17	1.19	0.25	0.663	0.656	1.58	1.3
Robust CV % f	11	24	12	14	9.9	11	16	3.5	110	15	15	13
Outliers	0	0	1	2	2	1	1	5	1	1	0	1
Stragglers	0	0	0	0	0	0	0	1	0	1	0	1

2008-09: KCl Extractable Nitrate N — autocolour (7C2) mg N/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	14	14	14	14	19	19	19	19
Minimum	15.8	3	7.5	75	16	26	5	3.7	0.01	2.8	9	8.5
Maximum	23.6	15	56.6	411	52	33	9.1	8.95	322	542	703	759
Median i	20.8	12.2	50.2	369	47	30.1	7.98	7	0.35	4.48	10.8	10.4
Mean i	20.8	12	48.8	338	45.2	29.7	7.87	6.94	17.5	32.7	47.2	49.7
MAD i	0.8	0.8	1.6	18	1.45	1	0.35	0.7	0.17	0.36	0.94	0.6
IQR i	1.48	1.11	2.59	27.4	2.19	1.72	0.58	1.05	0.34	0.53	1.49	0.82
Robust CV % i	7.1	9.1	5.2	7.4	4.7	5.7	7.3	15	96	12	14	7.8
Median f	20.9	12.3	50.6	369	47	30.1	8.1	7.1	0.34	4.48	10.8	10.3
Mean f	21.1	12.5	51.1	366	47.5	29.7	8.09	7.19	0.36	4.48	10.8	10.3
MAD f	0.9	0.7	1.6	18	1.4	1	0.4	0.8	0.16	0.29	0.87	0.65
IQR f	1.59	0.98	2.48	23.7	1.96	1.72	0.56	1.11	0.25	0.47	1.07	0.88
Robust CV % f	7.6	8	4.9	6.4	4.2	5.7	6.9	16	75	11	9.9	8.5
Outliers	1	1	1	2	1	0	1	1	3	3	1	1
Stragglers	0	0	0	0	0	0	0	0	0	1	0	0

2008-09: KCl Ext. Ammonium N — autocolour (7C2) mg N/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	18	18	18	18	21	21	21	21
Minimum	1.4	22	0.85	26	1.75	3.11	3.3	2.2	16	32	25	40
Maximum	28.8	114	23.3	75.5	34	14.5	10.1	40	210	250	96	359
Median i	17	86.0	14.0	58.3	29.5	9.1	8.1	8.2	26.0	48.2	35.1	61.0
Mean i	15.9	79.6	12.8	54.9	26.2	8.73	7.73	9.12	34.5	56.6	38.4	74.5
MAD i	1	4.5	0.95	5.15	1.5	1	0.81	0.41	2	1.8	2.1	3
IQR i	1.72	7.93	2.06	8.54	2.52	1.5	1.36	1.16	3.48	2.67	3.78	4.67
Robust CV % i	10	9.2	15	15	8.5	17	17	14	13	5.5	11	7.7
Median f	17.2	86.9	14.1	59.2	30	9.32	8.47	8.4	26	48.4	35	61
Mean f	17.5	87.5	14.3	58.8	30.2	9.33	8.22	8.39	26.2	48.8	34.9	61
MAD f	0.7	2.9	0.5	4.2	1.0	0.9	1.01	0.19	2.0	1.3	2.0	2.0
IQR f	1.33	5.37	0.741	6.45	2.22	1.39	1.5	0.289	3.26	1.82	2.93	3.6
Robust CV % f	7.8	6.2	5.3	11	7.4	15	18	3.4	13	3.8	8.4	5.9
Outliers	4	5	6	2	3	4	2	5	2	3	4	4
Stragglers	1	0	1	1	0	0	0	2	0	1	0	0

2008-09: Total P – all methods; %P

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	18	18	18	18	19	19	19	19
Minimum	0.002	0.011	0.005	0.020	0.020	0.022	0.003	0.036	0.051	0.018	0.014	0.06
Maximum	0.04	0.087	0.130	0.24	0.64	0.36	0.23	0.82	464	160	139	689
Median i	0.026	0.064	0.109	0.21	0.055	0.032	0.016	0.080	0.062	0.025	0.018	0.069
Mean i	0.026	0.063	0.101	0.196	0.111	0.065	0.035	0.15	24.5	8.48	7.37	36.4
MAD i	0.004	0.009	0.011	0.016	0.009	0.006	0.004	0.013	0.003	0.001	0.002	0.005
IQR i	0.006	0.014	0.024	0.027	0.018	0.009	0.008	0.021	0.006	0.002	0.002	0.007
Robust CV % i	24	21	22	13	33	29	49	27	9.1	8.1	12	11
Median f	0.027	0.066	0.110	0.210	0.054	0.031	0.016	0.077	0.062	0.024	0.017	0.069
Mean f	0.027	0.066	0.105	0.205	0.054	0.031	0.016	0.073	0.061	0.025	0.018	0.069
MAD f	0.004	0.009	0.011	0.013	0.008	0.004	0.004	0.012	0.003	0.001	0.001	0.004
IQR f	0.006	0.014	0.023	0.026	0.011	0.006	0.005	0.016	0.005	0.002	0.002	0.007
Robust CV % f	24	21	21	13	21	21	35	21	8.7	6.4	9	9.7
Outliers	1	1	1	1	2	2	2	2	2	5	3	2
Stragglers	0	0	0	0	1	0	0	0	0	0	1	0

2008-09: Colwell Extractable P — pooled (9B1 + 9B2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	25	25	25	25	22	22	22	22
Minimum	2	42.9	32.3	134	57.6	22	15.7	16.7	68.3	16.4	10	89.4
Maximum	18	97	86.6	373	99	35	29	39	166	45	64	234
Median i	5.64	57	56.1	277	73.7	28	20	32	85	19.5	19.6	121
Mean i	6.23	59.1	56.3	274	74.4	28.5	21.2	31.1	91.3	21	21	128
MAD i	1.35	4.5	4	18.5	7.2	3.1	2	3	3.6	1.6	1.76	12.7
IQR i	1.95	8.28	6.38	32.4	11.1	4.52	2.74	4.63	5.56	3.41	3	21.5
Robust CV % i	35	15	11	12	15	16	14	14	6.5	17	15	18
Median f	5.18	56.5	56.1	281	73.7	28	20	32	83.9	19.3	19.8	119
Mean f	5.47	56.4	56	280	74.4	28.5	20.3	31.7	84.7	19.6	19.8	123
MAD f	1.14	4.3	3.95	18	7.2	3.1	1.03	3	3.57	1.26	1.8	11.5
IQR f	1.99	6.5	5.96	30.4	11.1	4.52	2.23	4.6	4.73	1.67	2.52	18.9
Robust CV % f	38	12	11	11	15	16	11	14	5.6	8.6	13	16
Outliers	1	2	2	3	0	0	1	1	4	1	3	1
Stragglers	1	0	0	0	0	0	2	0	0	1	0	0

2008-09: Olsen Extractable P — Pooled (9C1 + 9C2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	21	22	22	22	27	27	27	27
Minimum	0.3	15.9	15.5	72.6	22.3	7.1	6.2	9.1	31.9	5.9	9.7	31.6
Maximum	16	120	110	496	41.8	69	52	94	276	62	78	248
Median i	2	22	23.3	93	26	10.2	8.55	12.9	40	8.5	13	45.1
Mean i	2.67	30.2	31.8	125	27.1	13.3	11.5	16.4	55.2	12.5	18.2	60.6
MAD i	0.7	3.1	2.2	9.3	2	1.05	0.9	1.88	4.2	1.2	2.3	7.6
IQR i	0.808	5.52	4.67	17.8	3.81	1.72	1.41	2.87	6.67	2.82	5.34	11.2
Robust CV % i	40	25	20	19	15	17	16	22	17	33	41	25
Median f	1.8	21.3	23	89.4	26	10	8.44	12.8	39	7.7	13	45
Mean f	1.82	21.7	22.7	91.6	26.3	9.95	8.34	12.7	40	7.79	13.2	45.6
MAD f	0.5	2.7	1.8	8.95	2	0.8	0.71	1.8	3.1	0.485	2.1	7
IQR f	0.803	3.97	2.89	13	3.32	1.33	1.2	2.8	5.5	0.921	3.26	10.8
Robust CV % f	45	19	13	14	13	13	14	22	14	12	25	24
Outliers	2	3	3	2	1	2	3	1	3	6	4	2
Stragglers	0	0	1	1	0	1	1	0	0	3	0	0

2008-09: Bray-1 Extractable P — pooled (9E1 + 9E2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	11	11	11	11	11	11	11	11	13	13	13	13
Minimum	0.01	0.6	0.05	1.0	0.88	0.04	0.04	0.00	0.12	0.003	0.00	0.04
Maximum	0.48	36	8.3	120	32.0	22.0	22.2	17.3	143.0	16.0	46.0	254.0
Median i	0.149	24.7	2.28	48.4	20.0	17.7	19.4	1.41	42	5.99	16.5	76
Mean i	0.208	21.2	2.62	46.6	18.6	15.7	16.8	5.64	45.3	5.32	15.6	72.5
MAD i	0.121	4.7	0.75	16.4	3.6	2.2	2.6	1.08	11	1.59	3.9	28
IQR i	0.148	12	1.22	33.1	7.12	4.39	4.14	9.37	25.6	3.66	8.35	65.6
Robust CV % i	100	49	54	68	36	25	21	660	61	61	51	86
Median f	0.149	26	2.23	48.4	20.5	17.9	19.4	0.7	41.5	5.5	16.9	66.2
Mean f	0.208	25.8	2.05	46.6	20.4	17.3	18.5	0.817	37.1	4.43	15.5	57.3
MAD f	0.121	3.4	0.74	16.4	3.1	1.8	2.1	0.42	10.5	2.03	1.42	32.3
IQR f	0.148	4.93	1.38	33.1	5.37	3.3	3.55	0.801	27.8	3.47	4.53	62.2
Robust CV % f	100	19	62	68	26	19	18	110	67	63	27	94
Outliers	0	2	1	0	1	1	1	4	1	1	1	1
Stragglers	0	0	0	0	0	0	0	0	0	0	2	0

2008-09: Phosphorus buffer index - Colwell (9I2a + 9I2b + 9I2c) L/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	9	9	9	9	9	9	9	9	10	10	10	10
Minimum	1.01	0.22	0.25	3.69	151	43	52	85	60	59	17	77
Maximum	1580	287	286	577	190	58.4	64	378	77.3	79.1	35	117
Median i	949	234	262	412	166	50.5	58.2	187	64.3	65.2	26.0	93.7
Mean i	860	215	230	381	167	50.3	57.4	185	67.2	66.3	26.7	91.7
MAD i	127	15	10	38.3	7.57	4.5	5.8	38.2	3.54	4.17	3.5	6.75
IQR i	199	28.9	23	56	16.9	8.52	8.15	51.2	9.36	7.04	6.68	12.1
Robust CV % i	21	12	8.8	14	10	17	14	27	15	11	26	13
Median f	949	236	263	414	166	50.5	58.2	187	64.3	65.2	26	93.7
Mean f	880	242	259	428	167	50.3	57.4	185	67.2	66.3	26.7	91.7
MAD f	49.1	11.5	9.93	39.7	7.57	4.5	5.8	38.2	3.54	4.17	3.5	6.75
IQR f	119	25	17.2	63.9	16.9	8.52	8.15	51.2	9.36	7.04	6.68	12.1
Robust CV % f	13	11	6.5	15	10	17	14	27	15	11	26	13
Outliers	1	1	1	1	0	0	0	0	0	0	0	0
Stragglers	1	0	0	0	0	0	0	0	0	0	0	0

2008-09: Phosphorus buffer index - Olsen (9I3a + 9I3b + 9I3c) L/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	3	3	3	3	3	3	3	3	4	4	4	4
Minimum	217	176	183	132	159	47	54.7	118	73	58	24	81
Maximum	1325	277	266	457	176	52	59	213	83.8	68.2	32	106
Median i	961	224	251	418	163	49	56	209	80.8	66.6	28.2	102
Mean i	834	226	233	336	166	49.3	56.6	180	79.6	64.8	28.1	97.8
MAD i	364	48	15	39	4	2	1.3	4	1.65	1.05	2.5	3.5
IQR i	821	74.9	61.5	241	12.6	3.71	3.19	70.4	6.1	5.84	4.91	15
Robust CV % i	85	33	25	58	7.7	7.6	5.7	34	7.6	8.8	17	15
Median f	961	224	251	418	163	49	56	211	80.8	66.6	28.3	102
Mean f	834	226	233	336	166	49.3	56.6	211	79.6	64.8	28.1	97.8
MAD f	364	48	15	39	4	2	1.3	2	1.65	1.05	2.5	3.5
IQR f	821	74.9	61.5	241	12.6	3.71	3.19		6.1	5.84	4.91	15
Robust CV % f	85	33	25	58	7.7	7.6	5.7		7.6	8.8	17	15
Outliers	0	0	0	0	0	0	0	1	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: Phosphate Extractable S (10B3) mg S/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	15	10	4.5	7.2	18	11	10	18	16.9	6.8	8.2	28
Maximum	145	114	52	83.2	34	14	16	31	24	12	11	53
Median i	131	110	49	71	32	13	14.0	21	19.5	10.5	9.2	43
Mean i	101	86.7	39.9	59.2	29.4	12.8	13.6	22.2	20	10.1	9.35	42.2
MAD i	14	4	2.85	11.6	1.6	1	0.9	0.65	2.54	0.75	0.92	4.52
IQR i	81.4	48.2	19.2	36.9	6.45	1.7	2.11	3.13	4.81	1.8	1.65	9.66
Robust CV % i	62	44	39	52	20	13	15	15	25	17	18	22
Median f	142	114	49	71	33	13	14	21	19.5	10.5	9.15	43
Mean f	138	114	46.9	59.2	31.6	12.8	13.6	20.5	20	10.1	9.35	42.2
MAD f	3	0	2.7	11.6	1	1	0.9	0.49	2.54	0.75	0.915	4.52
IQR f	13.7	0.74	8.0	36.9	3.43	1.7	2.1	1.6	4.8	1.8	1.7	9.7
Robust CV % f	9.7	0.65	16	52	10	13	15	7.6	25	17	18	22
Outliers	1	2	1	0	1	0	0	1	0	0	0	0
Stragglers	1	1	0	0	0	0	0	0	0	0	0	0

2008-09: KCl_{40} Extractable S (Blair *et al.*) mg S/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	9	9	9	9	12	12	12	12	9	9	9	9
Minimum	25	52.9	31	44.2	18	10	9.6	14.8	11	6.8	7.2	33
Maximum	63	91.6	67	91	41	17	16.7	22	35	15	13.5	47
Median i	31.2	72.8	36.4	64.2	20.6	12.2	12.5	18.3	15.8	7.7	9.6	39.3
Mean i	34.3	72.7	40.3	63.4	22.6	12.4	12.5	18.2	17.5	8.49	9.8	39.4
MAD i	2.4	3.4	1.5	6.2	2.2	0.85	1.55	1.7	1.7	0.25	1.03	3.8
IQR i	4.7	7.2	7.3	14.3	3.0	1.8	2.4	2.6	2.7	0.5	2.4	6.0
Robust CV % i	15	9.8	20	22	15	15	19	14	17	6.6	24	15
Median f	31.1	72.8	36.1	64.2	20.1	11.9	12.5	18.3	15.4	7.7	9.6	39.3
Mean f	30.8	72.8	35.2	63.4	20.9	12.0	12.5	18.2	15.3	7.7	9.8	39.4
MAD f	1.8	2.9	1.2	6.2	2.1	1.1	1.6	1.7	1.6	0.2	1.0	3.8
IQR f	2.8	4.0	3.3	14.3	3.0	2.0	2.4	2.6	2.6	0.4	2.4	6.0
Robust CV % f	9.1	5.5	9.2	22	15	17	19	14	17	4.5	24	15
Outliers	1	2	2	0	1	1	0	0	1	1	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: DTPA Extractable Fe (12A1) mg Fe/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	32	32	32	32	32	32	32	32	34	34	34	34
Minimum	1.3	11.5	4.5	28.0	8.4	14.4	27.0	2.7	37.1	67.2	3.0	41.0
Maximum	23	610	101	86	152	231	357	308	203	415	164	543
Median i	5.22	28.1	49.2	62.5	60.5	46.0	62.6	3.9	68.6	128	73.0	228
Mean i	6.85	48.6	50.3	63.9	62.6	59.4	87.6	14.2	74.3	139	77.4	246
MAD i	1.52	6	10.3	6.5	6.7	13.3	26.5	0.74	9.9	23.5	14.5	111
IQR i	4.03	12.2	15.2	13.1	9.05	23.7	58.1	1.59	16.4	44.5	21.9	157
Robust CV % i	77	43	31	21	15	52	93	41	24	35	30	69
Median f	4.9	28	50	63	59	41	50	4	67	127	73	228
Mean f	5.2	30	51	65	59	46	62	4	68	131	73	246
MAD f	1.2	5.3	9.2	6.0	5.1	8.6	15.9	0.5	8.1	22.0	13.0	111
IQR f	2.1	9.7	13.4	13.4	7.7	17.3	30.9	1.0	12.3	36.3	19.8	157
Robust CV % f	43	35	27	21	13	42	62	27	18	29	27	69
Outliers	4	2	2	1	4	4	3	5	2	1	4	0
Stragglers	2	0	1	0	0	1	2	0	1	0	0	0

2008-09: DTPA Extractable Cu (12A1) mg Cu/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	32	32	32	32	31	31	31	31	33	33	33	33
Minimum	0.01	1.61	1.67	2.38	0.62	0.7	0.19	0.51	0.12	0.13	0.09	0.09
Maximum	1.40	4.74	3.90	6.0	4.93	2.48	1.55	2.42	2.54	2.75	1.90	1.84
Median i	0.07	3.03	2.96	4.03	2.74	1.06	0.44	1.38	1.50	1.88	1.03	0.95
Mean i	0.17	3.23	2.94	4.01	2.77	1.10	0.49	1.39	1.52	1.85	1.06	1.02
MAD i	0.03	0.46	0.26	0.40	0.16	0.10	0.07	0.18	0.14	0.21	0.13	0.15
IQR i	0.09	0.85	0.39	0.58	0.22	0.15	0.10	0.25	0.22	0.31	0.22	0.23
Robust CV % i	130	28	13	14	8.1	14	23	18	15	17	21	24
Median f	0.05	3.03	2.96	4.02	2.73	1.01	0.42	1.35	1.5	1.88	1.03	0.95
Mean f	0.06	3.23	2.98	3.93	2.73	1.02	0.433	1.36	1.51	1.88	1.04	1.02
MAD f	0.02	0.46	0.26	0.37	0.13	0.09	0.05	0.15	0.13	0.18	0.108	0.15
IQR f	0.03	0.85	0.39	0.54	0.22	0.13	0.09	0.23	0.19	0.26	0.17	0.22
Robust CV % f	59	28	13	13	8.1	13	21	17	13	14	17	24
Outliers	6	0	1	3	5	3	1	3	3	3	4	2
Stragglers	2	0	0	0	0	0	4	0	0	1	1	0

2008-09: DTPA Extractable Mn (12A1) mg Mn/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	30	30	30	30	31	31	31	31	32	32	32	32
Minimum	0.01	45.0	16.0	21	124	137	3.1	16	15.7	40.6	22.8	36.3
Maximum	3.3	180	56	101	918	534	53	55	111	622	211	640
Median i	0.66	130	23.9	73.5	297	171	5.2	18.1	55.4	156	87.0	141
Mean i	0.97	131	26.9	73.3	316	189	6.9	21.4	57.9	179	93.4	161
MAD i	0.19	8	5.34	7.2	34	15	0.6	1.13	3.39	17.5	6.2	12
IQR i	0.29	17.2	10.3	11.3	46.7	20.8	0.92	2.89	5.5	38.0	11.2	26.3
Robust CV % i	44	13	43	15	16	12	18	16	9.9	24	13	19
Median f	0.62	130	21.9	73.8	296	167	5.08	18	55.2	149	86	141
Mean f	0.63	130	23.9	75.2	287	169	5.13	18.3	55.9	155	86	146
MAD f	0.12	6.5	4.6	6.0	31	10	0.50	1	2.8	8.3	4.69	10.5
IQR f	0.23	10.6	7.41	8.67	44.9	17.6	0.75	1.7	4.08	15.6	7.15	21.5
Robust CV % f	38	8.2	34	12	15	11	15	9.5	7.4	10	8.3	15
Outliers	6	5	1	1	4	3	3	6	6	5	5	4
Stragglers	1	1	3	2	0	1	0	0	0	4	2	0

2008-09: DTPA Extractable Zn (12A1) mg Zn/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	32	32	32	32	31	31	31	31	33	33	33	33
Minimum	0.01	1.5	1.23	8.5	0.64	0.54	0.10	0.22	1.05	0.47	0.59	0.48
Maximum	1.1	6.1	2.8	18	4.24	1.29	1.1	2.24	5.85	2.59	3.7	3.57
Median i	0.08	3.37	2.00	15.0	1.92	0.85	0.40	0.50	4.40	1.89	2.60	2.09
Mean i	0.15	3.44	2.04	14.6	1.92	0.87	0.43	0.57	4.33	1.84	2.47	2.10
MAD i	0.03	0.35	0.17	1.14	0.22	0.06	0.06	0.07	0.22	0.12	0.15	0.23
IQR i	0.07	0.62	0.28	2.2	0.30	0.11	0.10	0.11	0.35	0.23	0.22	0.39
Robust CV % i	85.0	18.0	14.0	15.0	16.0	13.0	24.0	22.0	8.0	12.0	8.4	19.0
Median f	0.07	3.4	2.0	15.1	1.92	0.82	0.39	0.49	4.40	1.90	2.60	2.09
Mean f	0.08	3.4	2.0	15.0	1.89	0.82	0.39	0.50	4.41	1.90	2.59	2.12
MAD f	0.03	0.26	0.14	0.95	0.19	0.06	0.04	0.04	0.20	0.10	0.12	0.17
IQR f	0.03	0.45	0.21	1.95	0.30	0.09	0.07	0.07	0.30	0.16	0.19	0.27
Robust CV % f	48	13	11	13	16	12	19	14	6.7	8.4	7.2	13
Outliers	5	2	2	2	2	6	3	3	5	6	7	5
Stragglers	1	1	4	0	0	2	2	1	0	1	0	1

2008-09: Hot $CaCl_2$ Extractable B — ICPAES (12C2) mg B/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	17	17	17	17	21	21	21	21
Minimum	0.23	0.56	0.48	0.56	0.66	0.30	0.1	3.36	0.44	0.24	0.53	0.36
Maximum	0.94	2.6	3	2.48	2	1.4	0.97	10.4	1.8	1.1	4.58	1.44
Median i	0.62	1.62	1.82	1.6	1.1	0.87	0.38	6.5	1.2	0.62	1.08	1.0
Mean i	0.58	1.64	1.73	1.58	1.16	0.88	0.41	6.28	1.13	0.62	1.16	0.95
MAD i	0.18	0.42	0.32	0.29	0.16	0.19	0.06	0.72	0.10	0.08	0.14	0.19
IQR i	0.24	0.59	0.56	0.44	0.27	0.27	0.10	1.03	0.21	0.15	0.26	0.21
Robust CV % i	39	37	31	27	24	31	27	16	18	24	24	21
Median f	0.62	1.62	1.82	1.6	1.1	0.87	0.38	6.5	1.2	0.62	1.04	1
Mean f	0.58	1.64	1.73	1.58	1.11	0.88	0.36	6.2	1.14	0.62	0.99	0.95
MAD f	0.18	0.42	0.32	0.29	0.15	0.19	0.05	0.7	0.07	0.07	0.16	0.19
IQR f	0.24	0.59	0.56	0.44	0.25	0.27	0.08	0.90	0.15	0.11	0.26	0.21
Robust CV % f	39	37	31	27	23	31	22	14	13	17	25	21
Outliers	0	0	0	0	1	0	3	2	4	2	1	0
Stragglers	0	0	0	0	0	0	0	0	1	0	0	0

2008-09: Hot $CaCl_2$ Extractable B — pooled (12C1 + 12C2) mg B/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	23	23	23	23
Minimum	0.23	0.56	0.48	0.56	0.66	0.30	0.10	3.36	0.44	0.24	0.53	0.36
Maximum	0.94	2.60	3.00	2.48	2.93	1.74	1.02	10.4	1.90	1.10	4.58	3.30
Median i	0.61	1.66	1.84	1.61	1.10	0.87	0.38	6.50	1.20	0.62	1.08	1.00
Mean i	0.58	1.66	1.74	1.63	1.25	0.91	0.44	6.38	1.16	0.63	1.21	1.07
MAD i	0.17	0.40	0.34	0.29	0.16	0.19	0.07	0.80	0.14	0.08	0.15	0.20
IQR i	0.23	0.59	0.58	0.41	0.29	0.29	0.11	1.16	0.19	0.15	0.26	0.30
Robust CV % i	37.0	35.0	32.0	26.0	26.0	34.0	28.0	18.0	16.0	25.0	24.0	30.0
Median f	0.61	1.66	1.84	1.61	1.10	0.85	0.38	6.35	1.18	0.62	1.00	1.00
Mean f	0.58	1.66	1.74	1.63	1.11	0.87	0.36	6.10	1.11	0.62	0.99	0.97
MAD f	0.17	0.40	0.34	0.29	0.14	0.18	0.05	0.61	0.09	0.08	0.16	0.20
IQR f	0.23	0.59	0.58	0.41	0.25	0.29	0.08	1.06	0.15	0.13	0.26	0.25
Robust CV % f	37.0	35.0	32.0	26.0	22.0	34.0	20.0	17.0	13.0	21.0	26.0	24.0
Outliers	0	0	0	0	2	1	4	1	4	2	2	1
Stragglers	0	0	0	0	0	0	0	2	1	0	0	0

2008-09: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	18	18	18	18
Minimum	2.4	5.9	22.5	19.5	13.4	3.4	2.5	8.1	5.0	2.9	1.3	2.1
Maximum	6.2	11.9	69.6	43.7	40.3	10.1	8.1	48.7	22.0	5.9	3.1	4.2
Median i	2.9	7.3	41.2	23.0	22.2	5.5	4.2	23.5	15.0	4.8	2.1	3.5
Mean i	3.2	7.7	41.6	24.9	23.0	5.9	4.3	24.5	14.6	4.7	2.1	3.4
MAD i	0.2	0.3	2.2	1.6	0.7	0.2	0.2	2.4	0.8	0.2	0.1	0.2
IQR i	0.4	0.7	3.5	2.7	1.1	0.5	0.3	5.3	1.1	0.3	0.1	0.4
Robust CV % i	13.0	9.8	8.4	12.0	4.8	8.2	6.8	23.0	7.6	6.6	6.8	11.0
Median f	2.9	7.2	41.2	22.5	22.2	5.5	4.2	23.3	15.0	4.9	2.2	3.5
Mean f	2.8	7.1	41.2	22.5	22.3	5.5	4.2	22.8	15.2	4.9	2.2	3.5
MAD f	0.1	0.2	1.7	1.1	0.5	0.1	0.1	1.3	0.6	0.2	0.1	0.2
IQR f	0.2	0.2	2.7	1.8	0.9	0.3	0.2	2.7	0.8	0.2	0.1	0.3
Robust CV % f	5.7	3.4	6.5	8.1	4.0	5.0	5.5	12.0	5.6	4.5	4.9	9.6
Outliers	2	4	4	2	3	5	2	4	3	3	4	1
Stragglers	2	1	0	1	0	0	0	1	0	2	0	0

2008-09: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	18	18	18	18
Minimum	4.30	1.42	0.49	2.30	1.45	0.11	0.13	1.30	0.52	0.36	0.07	0.08
Maximum	6.40	2.56	35.80	4.04	9.87	1.32	1.49	10.30	5.20	3.54	0.99	0.96
Median i	4.92	2.07	31.2	2.82	8.92	0.82	0.92	6.70	4.27	3.07	0.50	0.59
Mean i	5.02	2.07	26.6	2.90	8.33	0.81	0.92	6.59	4.01	2.89	0.52	0.60
MAD i	0.16	0.10	1.88	0.18	0.35	0.04	0.08	0.81	0.15	0.10	0.03	0.05
IQR i	0.29	0.16	9.52	0.39	0.54	0.06	0.07	1.28	0.23	0.16	0.04	0.08
Robust CV % i	5.90	7.70	31.0	14.00	6.10	7.70	7.70	19.00	5.40	5.20	8.60	14.0
Median f	4.89	2.03	31.4	2.80	8.96	0.82	0.91	6.67	4.27	3.07	0.50	0.59
Mean f	4.83	2.05	31.20	2.82	8.98	0.82	0.92	6.47	4.27	3.09	0.50	0.60
MAD f	0.16	0.08	0.60	0.18	0.22	0.02	0.03	0.59	0.09	0.07	0.01	0.04
IQR f	0.32	0.13	1.11	0.27	0.42	0.04	0.05	1.03	0.16	0.12	0.02	0.07
Robust CV % f	6.4	6.2	3.5	9.5	4.6	5.0	5.5	15.0	3.6	3.9	3.3	12.0
Outliers	2	3	5	1	2	4	4	2	3	3	5	4
Stragglers	0	0	2	0	1	2	1	1	0	0	1	0

2008-09: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	18	18	18	18
Minimum	0.05	0.02	0.01	0.02	0.07	0.00	0.06	0.71	0.00	0.03	0.01	0.05
Maximum	1.01	0.71	6.80	7.50	0.58	0.43	0.54	11.6	0.28	0.45	0.21	0.30
Median i	0.48	0.15	5.74	0.13	0.24	0.03	0.15	8.86	0.08	0.15	0.04	0.12
Mean i	0.50	0.19	4.80	0.72	0.26	0.06	0.17	7.89	0.10	0.16	0.06	0.14
MAD i	0.05	0.04	0.73	0.05	0.05	0.02	0.02	0.94	0.02	0.02	0.02	0.02
IQR i	0.10	0.06	1.85	0.18	0.06	0.03	0.03	1.92	0.05	0.04	0.05	0.03
Robust CV % i	20	43	32	130	27	97	17	22	66	27	130	27
Median f	0.49	0.15	6.1	0.13	0.24	0.03	0.15	8.90	0.07	0.15	0.03	0.11
Mean f	0.48	0.13	6.0	0.13	0.24	0.03	0.15	8.89	0.08	0.15	0.04	0.12
MAD f	0.03	0.02	0.44	0.03	0.03	0.02	0.01	0.19	0.02	0.02	0.01	0.01
IQR f	0.05	0.04	0.94	0.04	0.05	0.03	0.02	0.32	0.03	0.03	0.02	0.03
Robust CV % f	9.9	28	15	33	22	84	13	3.6	44	18	50	27
Outliers	4	2	3	4	2	1	3	4	2	4	2	3
Stragglers	0	2	1	0	1	1	2	5	0	0	1	1

2008-09: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	18	18	18	18	19	19	19	19
Minimum	0.37	0.24	0.20	0.21	1.36	0.98	0.07	1.12	0.17	0.10	0.12	0.45
Maximum	0.57	1.57	4.3	2.7	2.32	1.85	0.43	1.97	0.71	0.655	0.612	1.63
Median i	0.47	1.21	2.01	1.63	1.73	1.21	0.18	1.26	0.53	0.49	0.48	1.46
Mean i	0.47	1.17	1.95	1.54	1.75	1.25	0.20	1.31	0.52	0.47	0.46	1.39
MAD i	0.04	0.1	0.09	0.07	0.07	0.06	0.02	0.11	0.03	0.05	0.05	0.11
IQR i	0.06	0.16	0.17	0.15	0.12	0.09	0.03	0.17	0.07	0.09	0.07	0.17
Robust CV % i	14	14	8.5	9.1	7	7.7	17	13	14	18	14	12
Median f	0.47	1.21	2.04	1.63	1.73	1.2	0.18	1.24	0.53	0.49	0.48	1.46
Mean f	0.47	1.2	2.03	1.61	1.72	1.21	0.177	1.24	0.52	0.49	0.483	1.44
MAD f	0.04	0.09	0.05	0.05	0.04	0.04	0.02	0.09	0.03	0.04	0.05	0.11
IQR f	0.06	0.16	0.09	0.12	0.07	0.06	0.03	0.13	0.06	0.08	0.06	0.16
Robust CV % f	14	13	4.2	7.5	4	4.9	16	11	11	17	13	11
Outliers	0	1	4	3	3	2	3	2	3	1	1	1
Stragglers	0	1	0	1	1	1	0	0	0	0	0	0

2008-09: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	24	24	24	24
Minimum	1.8	4.6	29.6	16.7	17.6	5.0	3.4	9.8	8.2	3.4	1.8	2.6
Maximum	5.0	12.2	66	40.4	29.0	9.4	6.6	63	18.9	5.8	2.7	4.4
Median i	2.8	7.3	40.5	23.2	22.3	5.4	3.9	22.4	15.4	5.0	2.3	3.7
Mean i	3.0	7.4	42.4	23.5	22.3	5.7	4.2	28.0	15.2	4.9	2.3	3.6
MAD i	0.1	0.5	3.2	1.5	1.1	0.3	0.3	5.4	1.2	0.3	0.2	0.2
IQR i	0.3	0.7	5.1	2.5	2.0	0.6	0.7	15.5	1.9	0.6	0.3	0.4
Robust CV % i	12.0	9.6	13.0	11.0	9.0	11.0	18.0	69	12.0	11.0	12.0	9.6
Median f	2.8	7.3	39.9	23.3	22.3	5.3	3.9	19.6	15.4	5.1	2.3	3.7
Mean f	2.8	7.3	39.9	23.2	22.4	5.5	4.0	20.6	15.5	5.0	2.3	3.7
MAD f	0.1	0.4	2.0	1.1	0.7	0.2	0.3	2.8	0.9	0.3	0.2	0.2
IQR f	0.1	0.6	3.4	1.7	1.3	0.5	0.4	5.9	1.9	0.5	0.3	0.3
Robust CV % f	4.7	8.6	8.5	7.3	5.8	9.1	11.0	30.0	12.0	10.0	12.0	8.6
Outliers	6	2	3	3	2	2	1	3	1	2	0	1
Stragglers	1	0	2	2	1	0	1	2	0	0	0	0

2008-09: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	24	24	24	24
Minimum	1.6	0.3	12.0	1.9	1.1	0.1	0.1	1.1	0.5	0.4	0.1	0.1
Maximum	5.7	2.3	37.7	3.2	10.7	1.2	1.4	10.1	5.8	4.6	0.6	0.7
Median i	4.9	2.0	28.5	2.7	8.4	0.8	0.9	6.5	4.2	3.0	0.5	0.6
Mean i	4.8	1.9	28.4	2.7	8.1	0.8	0.9	6.4	3.9	3.0	0.5	0.6
MAD i	0.2	0.1	2.6	0.1	0.4	0.1	0.0	0.9	0.3	0.1	0.0	0.0
IQR i	0.2	0.2	3.7	0.2	0.7	0.1	0.1	1.2	0.4	0.2	0.0	0.1
Robust CV % i	4.9	7.8	13.0	6.2	8.0	15.0	9.9	19.0	8.6	6.2	9.8	12.0
Median f	4.9	2.0	30.3	2.7	8.4	0.8	0.9	6.5	4.2	3.0	0.5	0.6
Mean f	5.0	2.0	30.2	2.7	8.4	0.8	0.9	6.6	4.3	3.0	0.5	0.6
MAD f	0.1	0.1	2.2	0.0	0.3	0.1	0.0	0.9	0.2	0.1	0.0	0.0
IQR f	0.2	0.2	3.1	0.1	0.6	0.1	0.0	1.3	0.3	0.2	0.0	0.1
Robust CV % f	4.3	7.7	10	3.3	7.3	11	5.4	20	6.7	5.8	9.3	11
Outliers	3	1	2	4	2	2	4	1	4	2	2	1
Stragglers	1	0	1	3	0	0	0	0	0	0	0	1

2008-09: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	18	18	18	18	23	23	23	23
Minimum	0.05	0.02	0.64	0.01	0.02	0.00	0.02	0.81	0.02	0.06	0.00	0.06
Maximum	0.93	0.72	7.47	0.72	0.44	0.25	0.46	10.10	0.39	0.48	0.26	1.41
Median i	0.47	0.15	5.94	0.13	0.25	0.06	0.18	8.52	0.08	0.15	0.04	0.12
Mean i	0.48	0.18	5.73	0.16	0.26	0.07	0.21	7.73	0.10	0.17	0.06	0.19
MAD i	0.04	0.02	0.24	0.03	0.05	0.05	0.04	0.62	0.03	0.02	0.02	0.03
IQR i	0.06	0.04	0.39	0.05	0.09	0.08	0.12	1.07	0.04	0.04	0.04	0.04
Robust CV % i	12	29	7	38	35	140	67	13	53	27	91	32
Median f	0.46	0.14	5.94	0.13	0.25	0.06	0.17	8.56	0.07	0.15	0.04	0.12
Mean f	0.47	0.15	5.98	0.14	0.28	0.07	0.17	8.42	0.07	0.15	0.04	0.12
MAD f	0.03	0.01	0.19	0.02	0.05	0.05	0.03	0.56	0.02	0.02	0.02	0.02
IQR f	0.05	0.02	0.28	0.04	0.08	0.08	0.05	0.75	0.03	0.03	0.03	0.04
Robust CV % f	10	14	4.7	29	34	140	32	8.8	43	18	68	32
Outliers	3	5	6	3	1	0	3	2	2	3	2	2
Stragglers	0	0	0	1	0	0	1	0	2	0	0	0

2008-09: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	19	19	19	19	24	24	24	24
Minimum	0.35	1.06	1.44	0.83	1.30	0.85	0.11	0.90	0.41	0.34	0.33	0.15
Maximum	0.63	1.46	2.31	2.00	1.90	1.90	1.75	1.75	0.65	0.57	0.53	1.60
Median i	0.46	1.24	1.93	1.56	1.60	1.13	0.17	1.23	0.51	0.47	0.45	1.45
Mean i	0.47	1.25	1.93	1.57	1.62	1.17	0.28	1.24	0.52	0.48	0.45	1.30
MAD i	0.03	0.07	0.15	0.07	0.10	0.07	0.03	0.19	0.02	0.02	0.03	0.11
IQR i	0.05	0.11	0.25	0.12	0.21	0.11	0.05	0.31	0.04	0.04	0.05	0.18
Robust CV % i	10.0	8.9	13.0	7.4	13.0	9.2	29.0	25.0	7.6	8.2	11.0	13.0
Median f	0.46	1.24	1.93	1.56	1.60	1.12	0.17	1.23	0.51	0.47	0.46	1.47
Mean f	0.46	1.25	1.93	1.58	1.62	1.10	0.17	1.24	0.52	0.48	0.46	1.44
MAD f	0.03	0.07	0.15	0.04	0.10	0.08	0.02	0.19	0.02	0.02	0.03	0.07
IQR f	0.05	0.11	0.25	0.09	0.21	0.12	0.02	0.31	0.03	0.03	0.05	0.13
Robust CV % f	10	8.9	13	5.7	13	11	14	25	6.7	7.1	10	8.6
Outliers	1	0	0	5	0	2	4	0	3	2	1	3
Stragglers	0	0	0	2	0	0	0	0	0	0	0	0

2008-09: Exchangeable Al — 1M KCl (15G1) cmol+/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	16	16	14	14	14	14	16	16	16	16
Minimum	0.010	0.010	0.0001	0.0010	0.0007	0.0006	0.040	0.0001	0.000	0.003	0.010	0.002
Maximum	0.307	0.315	0.121	0.226	0.257	0.303	0.623	0.119	0.171	0.236	0.435	0.293
Median i	0.096	0.127	0.010	0.013	0.010	0.008	0.192	0.002	0.009	0.015	0.039	0.034
Mean i	0.100	0.135	0.025	0.036	0.028	0.030	0.212	0.014	0.024	0.041	0.090	0.078
MAD i	0.045	0.042	0.009	0.010	0.008	0.006	0.052	0.001	0.007	0.009	0.020	0.028
IQR i	0.054	0.071	0.028	0.023	0.013	0.011	0.115	0.007	0.021	0.030	0.065	0.070
Robust CV % i	56	56	280	170	130	140	60	500	240	200	170	200
Median f	0.095	0.121	0.003	0.01	0.009	0.006	0.19	0.001	0.006	0.013	0.0345	0.028
Mean f	0.087	0.124	0.005	0.015	0.011	0.009	0.157	0.001	0.008	0.014	0.039	0.039
MAD f	0.040	0.041	0.003	0.008	0.007	0.005	0.032	0.000	0.003	0.004	0.013	0.010
IQR f	0.040	0.064	0.007	0.015	0.012	0.010	0.113	0.000	0.005	0.006	0.025	0.038
Robust CV % f	42	53	240	150	130	160	60	45	91	48	71	130
Outliers	1	1	3	2	1	1	2	4	2	3	4	2
Stragglers	0	0	2	0	0	0	0	2	2	2	0	2

2008-09: Extractable B — Mehlich3 (18F1) mg B/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	5	5	5	5	6	6	6	6	6	6	6	6
Minimum	0.004	0.01	0.004	0.004	0.23	0.001	0.001	1.20	0.51	0.14	0.14	0.33
Maximum	0.56	608	3.08	1.92	1.39	0.99	0.72	9.36	13.0	16.0	18.0	16.0
Median i	0.20	0.67	2.03	1.55	0.42	0.20	0.09	6.53	1.11	0.74	0.68	0.87
Mean i	0.26	122	1.84	1.27	0.57	0.29	0.18	5.90	3.09	3.19	3.58	3.34
MAD i	0.11	0.31	0.07	0.25	0.15	0.15	0.06	1.18	0.54	0.49	0.47	0.50
IQR i	0.25	226	1.18	0.81	0.40	0.35	0.20	2.82	3.16	3.49	4.09	3.56
Robust CV % i	120	34000	58	52	96	170	230	43	280	470	600	410
Median f	0.20	0.52	2.03	1.55	0.34	0.20	0.05	6.53	1.08	0.39	0.58	0.69
Mean f	0.26	0.46	2.04	1.27	0.40	0.29	0.07	5.90	1.10	0.63	0.70	0.81
MAD f	0.11	0.22	0.03	0.25	0.11	0.15	0.05	1.18	0.45	0.25	0.30	0.35
IQR f	0.25	0.50	0.07	0.81	0.22	0.35	0.09	2.82	0.80	0.72	0.76	0.70
Robust CV % f	120	97	3.7	52	64	170	170	43	74	180	130	100
Outliers	0	1	2	0	1	0	1	0	1	1	1	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: Extractable Ca — Mehlich3 (18F1) mg Ca/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	9	9	9	9
Minimum	101	214	300	44	2947	895	711	5351	1957	781	382	638
Maximum	600	1537	13100	5435	5004	1332	998	22523	3564	1087	501	880
Median i	550	1358	11125	4599	4382	1171	813	12995	2921	971	471	772
Mean i	498	1220	9970	4090	4120	1130	828	13600	2860	943	460	757
MAD i	22.5	144	1590	333	409	88	71.3	5750	264	61	9.3	93
IQR i	48.6	216	2370	794	949	163	116	8180	568	130	38.3	130
Robust CV % i	8.8	16	21	17	22	14	14	63	19	13	8.1	17
Median f	553	1390	11800	4710	4380	1170	813	13000	2920	971	473	772
Mean f	555	1370	11300	4670	4120	1130	828	13600	2860	943	479	757
MAD f	17	98	1270	261	409	88	71.3	5750	264	61	7.3	93
IQR f	21.5	213	2360	451	949	163	116	8180	568	130	21.5	130
Robust CV % f	3.9	15	20	9.6	22	14	14	63	19	13	4.5	17
Outliers	1	1	1	1	0	0	0	0	0	0	2	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: Extractable Cu — Mehlich3 (18F1) mg Cu/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	10	10	10	10
Minimum	0.10	3.1	2.6	4.9	2.9	1.4	0.4	1	1.9	2.3	0.94	1.3
Maximum	40	29	34	14	4	2.9	2.5	3.2	16	14	8.1	14
Median i	0.22	3.92	4.03	5.79	3.45	1.77	0.69	1.44	2.78	2.48	1.30	1.7
Mean i	5.39	6.92	7.56	6.78	3.43	1.91	0.91	1.66	3.98	3.75	2.03	3.0
MAD i	0.12	0.59	0.61	0.47	0.20	0.30	0.14	0.34	0.56	0.15	0.22	0.25
IQR i	0.99	0.85	1.12	0.80	0.47	0.47	0.20	0.58	0.90	0.45	0.57	0.65
Robust CV % i	440	22	28	14	14	27	29	40	33	18	44	38
Median f	0.18	3.73	3.56	5.70	3.45	1.77	0.66	1.44	2.75	2.41	1.23	1.60
Mean f	0.21	3.76	3.78	5.74	3.43	1.91	0.68	1.66	2.65	2.46	1.19	1.58
MAD f	0.06	0.43	0.94	0.30	0.20	0.30	0.08	0.34	0.44	0.11	0.20	0.22
IQR f	0.14	0.71	1.13	0.69	0.47	0.47	0.21	0.58	0.81	0.19	0.29	0.36
Robust CV % f	75	19	32	12	14	27	31	40	30	7.9	24	22
Outliers	2	1	1	1	0	0	1	0	1	2	2	2
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: Extractable Fe — Mehlich3 (18F1) mg Fe/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	8	8	8	8	9	9	9	9
Minimum	34	46	110	68	97	91	71	15.8	133	161	104	156
Maximum	53.4	90.2	189	109	288	217	164	57.4	300	439	221	307
Median i	38.6	59.7	157	98	194	130	104.5	26	165	271	146	178
Mean i	40.5	62.7	156	94.8	187	141	118	28	179	283	154	204
MAD i	3.6	6.3	30	10	30	34.5	24.5	6.5	29.6	42.4	22	22
IQR i	7.19	9.34	48.9	19.2	58.7	69.3	49.2	10.5	54.7	79.3	39	68.1
Robust CV % i	19	16	31	20	30	53	47	40	33	29	27	38
Median f	38.6	59.7	157	98	194	130	105	26	165	271	146	177
Mean f	40.5	62.7	156	94.8	187	141	118	28	179	283	154	191
MAD f	3.6	6.3	30	10	30	34.5	24.5	6.5	29.6	42.4	22	20.4
IQR f	7.19	9.34	48.9	19.2	58.7	69.3	49.2	10.5	54.7	79.3	39	46
Robust CV % f	19	16	31	20	30	53	47	40	33	29	27	26
Outliers	0	0	0	0	0	0	0	0	0	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: Extractable S — Mehlich3 (18F1) mg S/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	50	79	38	60	18.4	11	14	30.5	20	6.4	9.8	39.7
Maximum	66.8	100	50.5	76.1	98	36	30	237	88	30	24	59
Median i	59.2	84.2	42.2	65.9	24.0	14.7	14.4	41	24	9.9	12.1	48
Mean i	59.3	87.7	43.5	67.1	35.5	17.5	17.4	68	32.9	12.4	14	47.5
MAD i	4.8	4.85	3.2	4.55	5	0.7	0.4	7	2	0.4	1.1	4
IQR i	8.45	14.5	6.82	8.15	9.64	2.97	2.97	13.3	5.19	1.11	3.71	8.9
Robust CV % i	14	17	16	12	40	20	21	33	22	11	31	19
Median f	59.2	84.2	42.2	65.9	24	14.4	14.1	38.5	23.1	9.87	12.1	48
Mean f	59.3	87.7	43.5	67.1	25.1	14.4	14.1	40.1	23.7	9.81	12.3	47.5
MAD f	4.8	4.85	3.2	4.55	4	0.35	0.05	6.25	1.55	0.08	1	4
IQR f	8.45	14.5	6.82	8.15	7.34	0.69	0.24	11.4	3.39	0.29	2.27	8.9
Robust CV % f	14	17	16	12	31	4.8	1.7	30	15	2.9	19	19
Outliers	0	0	0	0	1	1	3	1	1	2	1	0
Stragglers	0	0	0	0	0	2	0	0	0	1	0	0

2008-09: Extractable Mg — Mehlich3 (18F1) mg Mg/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	9	9	9	9
Minimum	13	16	27	20	735	78	106	802	292	248	54	62
Maximum	671	252	4324	372	1119	108	124	1623	1105	549	120	90
Median i	586	229	3899	309	1009	100	114	1234	501	366	63.2	73.7
Mean i	527	204	3010	287	944	96.2	116	1240	537	363	68.7	75.6
MAD i	15.5	20	271	29.5	101	2.5	5	295	38	24	2.8	2.7
IQR i	36.1	30.4	1710	55.2	239	11.1	9.56	486	94.3	60.2	6.56	6.38
Robust CV % i	6.2	13	44	18	24	11	8.4	39	19	16	10	8.7
Median f	595	242	3980	316	1010	101	114	1230	501	367	62.1	73.5
Mean f	600	231	4020	325	944	99.2	116	1240	491	367	62.2	73.8
MAD f	18	10	52	26	101	2.25	5	295	34.5	6.7	2.45	2.5
IQR f	34.1	29.7	201	54.1	239	6.32	9.56	486	53.7	19.3	4.58	5.11
Robust CV % f	5.7	12	5	17	24	6.3	8.4	39	11	5.3	7.4	7
Outliers	1	1	2	1	0	1	0	0	2	1	1	1
Stragglers	0	0	1	0	0	0	0	0	0	2	0	0

2008-09: Extractable Mn — Mehlich3 (18F1) mg Mn/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	10	10	10	10
Minimum	3.2	137	54	63	132	115	3.4	56	44	202	111	178
Maximum	136	181	170	172	478	377	8.49	93	167	455	196	452
Median i	4.6	159	73.9	84	386	271	7.4	72	60.5	297	146	244
Mean i	20.9	160	88.2	92.2	368	267	6.92	72	71	301	152	272
MAD i	0.39	18.5	15.2	7	55	40.5	0.57	11.2	3.5	35.5	26.5	25
IQR i	0.52	28.5	37.5	11.5	90.6	58.9	1.21	18.7	6.93	56.3	37.1	80.6
Robust CV % i	11	18	51	14	23	22	16	26	11	19	25	33
Median f	4.6	159	72.8	83.1	386	271	7.6	72	60	297	146	231
Mean f	4.45	160	76.5	80.8	368	267	7.42	72	60.3	301	152	237
MAD f	0.37	18.5	13.5	7	55	40.5	0.4	11.2	3.2	35.5	26.5	17.5
IQR f	0.58	28.5	22.5	12.5	90.6	58.9	0.85	18.7	4.93	56.3	37.1	25.8
Robust CV % f	13	18	31	15	23	22	11	26	8.2	19	25	11
Outliers	1	0	1	1	0	0	1	0	1	0	0	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	1

2008-09: Extractable P - Col — Mehlich3 (18F2) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	1	1	1	1	0	0	0	0	2	2	2	2
Minimum									7.19	7.8	16	63.4
Maximum									74	85.5	20.3	123
Median i	0.40	27.2	27.4	120					40.6	46.7	18.1	93.2
Mean i	0.395	27.2	27.4	120					40.6	46.7	18.1	93.2
MAD i									33.4	38.9	2.14	29.8
IQR i												
Robust CV % i												
Median f									40.6	46.7	18.1	93.2
Mean f									40.6	46.7	18.1	93.2
MAD f									33.4	38.9	2.14	29.8
IQR f												
Robust CV % f												
Outliers												
Stragglers												

2008-09: Extractable P - ICP — Mehlich3 (18F1) mg P/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	8	8	8	8	8	8	8	8
Minimum	0.27	2.3	13	9.8	20	22	22	3.6	63	7.5	30.2	104
Maximum	4.84	48	36.9	142	64	31	28.4	41	136	14	47	172
Median i	1.5	41	27.2	117	33.4	28.0	24.5	33.5	76.4	10.3	35.0	122
Mean i	1.83	34.9	24.8	100	36.3	27.4	25.3	28.3	82.5	10.4	35.9	127
MAD i	0.9	4.5	4.2	15	2	2.71	2	4.6	10.4	1.6	1.85	13.7
IQR i	1.29	13.7	9.64	54.1	4.8	4.1	3.52	14.5	16.6	2.45	3.54	27.1
Robust CV % i	86	33	35	46	14	15	14	43	22	24	10	22
Median f	1.5	41.5	27.2	127	33.4	28	24.5	34	71	10.3	35	122
Mean f	1.83	40.3	24.8	126	34.3	27.4	25.3	31.8	74.9	10.4	34.3	127
MAD f	0.9	3.55	4.2	10	1.35	2.71	2	3.5	8	1.6	1	13.7
IQR f	1.29	7.84	9.64	16.3	3.58	4.1	3.52	6.82	15.4	2.45	2.97	27.1
Robust CV % f	86	19	35	13	11	15	14	20	22	24	8.5	22
Outliers	0	1	0	1	2	0	0	1	1	0	1	0
Stragglers	0	0	0	1	0	0	0	0	0	0	0	0

2008-09: Extractable K — Mehlich3 (18F1) mgK /kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	9	9	9	9
Minimum	15.9	4.9	5.5	5	6.2	4.7	55.7	348	41.9	65.6	45.9	373
Maximum	218	494	764	666	6802	494	73	629	211	200	205	641
Median i	173	461	678	611	582	447	64.4	482	200	189	190	563
Mean i	158	405	587	539	1270	382	64.4	482	177	171	173	546
MAD i	8	16	5	12.5	80.5	38.2	4.4	53.8	11	6	6.2	28
IQR i	17	41	84.1	34.1	161	99.5	8.3	88.8	27.4	25.3	17.8	57.5
Robust CV % i	9.9	8.9	12	5.6	28	22	13	18	14	13	9.4	10
Median f	173	462	679	612	582	470	64	482	202	190	191	568
Mean f	172	462	679	615	553	436	64	482	194	190	189	568
MAD f	4	15	2	10	51.6	24.3	4.4	53.8	7.5	3.2	6.1	24.8
IQR f	9.6	23.7	5.2	15.6	119.0	75.6	8.3	88.8	21.3	5.2	10.9	43.1
Robust CV % f	5.6	5.1	0.76	2.5	20	16	13	18	11	2.7	5.7	7.6
Outliers	2	1	3	1	2	1	0	0	1	2	1	1
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

2008-09: Extractable Na — Mehlich3 (18F1) mg Na/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	94	24.8	1250	16.3	41.8	3.1	27.8	1034	12.87	31	4.9	21.9
Maximum	141	45	1467	46	62	50	1331	2162	23.3	41.3	61.8	47
Median i	116	33.1	1342	32	48.6	5	30.7	1870	15.7	34.8	8.16	27
Mean i	117	34.1	1370	31.7	49.4	12.4	218	1690	16.4	34.9	18.1	30.1
MAD i	13	6.1	67	9	3.4	1.06	2.9	292	2.7	2.67	3.26	4
IQR i	20.8	9.93	95.6	14.2	5.19	7.2	8.9	370	4.45	3.71	16.3	11
Robust CV % i	18	30	7.1	44	11	140	29	20	28	11	200	41
Median f	116	33.1	1340	32	48.6	4.61	30.4	1870	15.7	34.8	5.6	27
Mean f	117	34.1	1370	31.7	49.4	4.61	31.9	1690	16.4	34.9	7.53	30.1
MAD f	13	6.1	67	9	3.4	0.39	2.45	292	2.7	2.67	0.7	4
IQR f	20.8	9.93	95.6	14.2	5.19	1.36	6.15	370	4.45	3.71	4.54	11
Robust CV % f	18	30	7.1	44	11	30	20	20	28	11	81	41
Outliers	0	0	0	0	0	2	1	0	0	0	1	0
Stragglers	0	0	0	0	0	0	0	0	0	0	1	0

2008-09: Extractable Zn — Mehlich3 (18F1) mg Zn/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	10	10	10	10
Minimum	0.004	3.3	2.3	17	0.8	0.5	0.12	0.12	2.84	0.003	0.003	0.003
Maximum	53	82	95	27	4.5	1.8	0.715	3.6	64	27	13	18
Median i	0.18	3.6	3.0	18.1	2.3	1.2	0.45	1.26	5.41	2.36	3.1	2.88
Mean i	6.87	13.4	15.1	19.8	2.5	1.2	0.44	1.50	11.00	4.63	3.8	3.99
MAD i	0.17	0.23	0.54	0.85	0.27	0.13	0.18	0.33	0.65	0.40	0.47	0.30
IQR i	0.63	0.40	3.59	3.16	0.71	0.20	0.32	0.53	1.24	0.71	0.72	0.64
Robust CV % i	350	11	120	18	31	16	70	42	23	30	23	22
Median f	0.17	3.52	2.83	18	2.26	1.29	0.46	1.26	5.2	2.36	3.1	2.88
Mean f	0.28	3.59	2.81	18.2	2.38	1.31	0.44	1.37	5.16	2.41	3.08	2.74
MAD f	0.16	0.12	0.33	0.35	0.20	0.09	0.18	0.16	0.51	0.22	0.37	0.20
IQR f	0.26	0.36	0.58	1.07	0.44	0.19	0.32	0.44	1.14	0.47	0.56	0.52
Robust CV % f	150	10	21	5.9	20	14	70	35	22	20	18	18
Outliers	1	1	2	1	1	1	0	1	1	2	2	2
Stragglers	0	0	0	1	1	0	0	1	0	0	0	0

2008-09: Extractable Al— Mehlich3 (18F1) mg Al/kg

Statistical parameters	Soil sample identification and values											
	November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
	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	8	8	8	8	8	8	8	8
Minimum	1106	694	460	627	500	443	659	2.7	479	383	266	673
Maximum	1806	1358	890	11441	1398	908	1183	69	1129	665	415	1183
Median i	1419	983	757	1091	952	573	848	27.7	632	448	314	833
Mean i	1420	991	711	2560	980	613	875	29.5	690	478	327	866
MAD i	64	32	53	174	191	96	129	13.7	95	53	43	70
IQR i	87.5	47.4	153	196	370	218	251	20.4	182	132	58.5	140
Robust CV % i	6.2	4.8	20	18	39	38	30	74	29	29	19	17
Median f	1390	983	757	1090	952	573	848	27.7	632	448	314	833
Mean f	1350	977	711	1080	980	613	875	29.5	690	478	327	866
MAD f	44.5	26	53	99	191	96	129	13.7	94.5	52.5	43	70.1
IQR f	115	40	153	241	370	218	251	20.4	182	132	58.5	140
Robust CV % f	8.3	4.1	20	22	39	38	30	74	29	29	19	17
Outliers	1	2	0	1	0	0	0	0	0	0	0	0
Stragglers	0	0	0	0	0	0	0	0	0	0	0	0

4. Comments on Measurement Performance

Detailed evaluations of "raw" and processed data from soil ILPPs, including from this report, are typically made at ASPAC Workshops, in national and international meetings, and in the scientific literature. It is appropriate, however, to make some observations herein, utilizing reported results and summary statistics from Section 3. These data were examined prior to any rounding for table formatting purposes. In addition and to mimimise data duplication due to method "pooling", six soil test methods or method combinations were excluded from these performance assessments. The data-sets excluded were as follows: Water-soluble Cl (5A1); OC (W&B) – (6A1 only); TOC - Dumas (6B2 & 6B3 combined); Total N (7A1 only); Total N (full pool); and Extractable B - ICP finish. In the event, data evaluations covered 46 method or method combinations and a total of 9,780 soil test results. Twelve (26.1%) of the tests and 1,050 results (10.7% of total tests results) were associated with Mehlich-3 extractions.

Collectively across all samples and methods, 7.3% of reported results were statistically assessed to be "outliers". The corresponding figure for "stragglers" was 2.2%. Percentages in the absence of Mehlich-3 tests were 6.0 and 2.3, respectively. For Mechich-3 only, 17.7% of total results were rated as "outliers", while 1.1% were "stragglers". The relatively high percentage of "outliers" for Mehlich-3 may reflect laboratory-to-laboratory inexperience in analyzing extracts obtained from this universal soil test, which has a narrow soil/solution ratio in combination with a short extraction time.

Figure 1 presents the relationships between the numbers of reported results by test and average numbers of statistical "outliers" and "stragglers". Both relationships were linear and highly significant, particularly for "outliers". The trend was for average numbers of "outliers" and "stragglers" to increase as the average number of reported results for a given test increased. In contrast, there were very poor non-linear trends between average numbers of reported results by test and corresponding average robust % CVs for those tests across all 12 test-

soils combined. The plotted data (Figure 2) suggest higher average numbers of "outliers" and "stragglers" at lower average %CV values, although there are several exceptions.

On a method-by-method basis across all 12 test soils combined, final grand median robust % CVs (typically second iteration values after removal of "outliers" and "stragglers"), ranged from 1.6 to 98.5%. This embraced all 46 tests reported by a minimum of six laboratories. Table 4 provides the identity of the seven best performed and seven worst performed tests, with their corresponding (final) grand median robust % CVs. The population median robust CV across all 46 tests and 12 soils was 13.5.% Furthermore, grand median final CVs across all methods by test soil ranged from 11.0% to 17.0%, the three highest being soil ASS34 (CV of 17%) and ASS53 and ASS54 (both with CVs of 14%). The least variable test soil, with a grand median robust CV of 11%, was ASS52. Test soil ASS112 was next lowest with a grand median robust CV of 12%. Interestingly, test soil ASS34 was sourced from and prepared for proficiency-testing purposes in North America.

The best-performed extractable P test was Colwell (9B1 + 9B2), followed by Olsen P (9C1 + 9C2), which is in keeping with findings from earlier ILPPs. Their grand median robust CVs were 12.5% and 14.0%, respectively. The PBI test incorporating Colwell P (9I3 a,b,c) had a grand median robust CV of 13.5%. In addition, the relatively elevated grand median CV of 29.5% for water soluble Cl (methods 5A1 and 5A2 pooled) was principally due to poorly-performed potentiometric titrations associated with Method 5A1 on soils with low salinity.

In common with observations in earlier years, usually high final robust median %CVs for exchangeable Al (method 15G1) were affected by soil acidity and/or alkalinity, with %CV values commonly increasing as test soils became more alkaline. An exception was test soil ASS34 (robust CV of 45% at pH 9.9). That test soil was excluded from the significant relationship presented for the remaining 11 soils in Figure 3.

Finally, the data summaries in Section 3 show many examples of skewed data; i.e. there were quite large differences at times between the median and mean values for individual tests. This emphasised the importance of using medians and MADs, which are less influenced by 'rogue' results in small data sets.

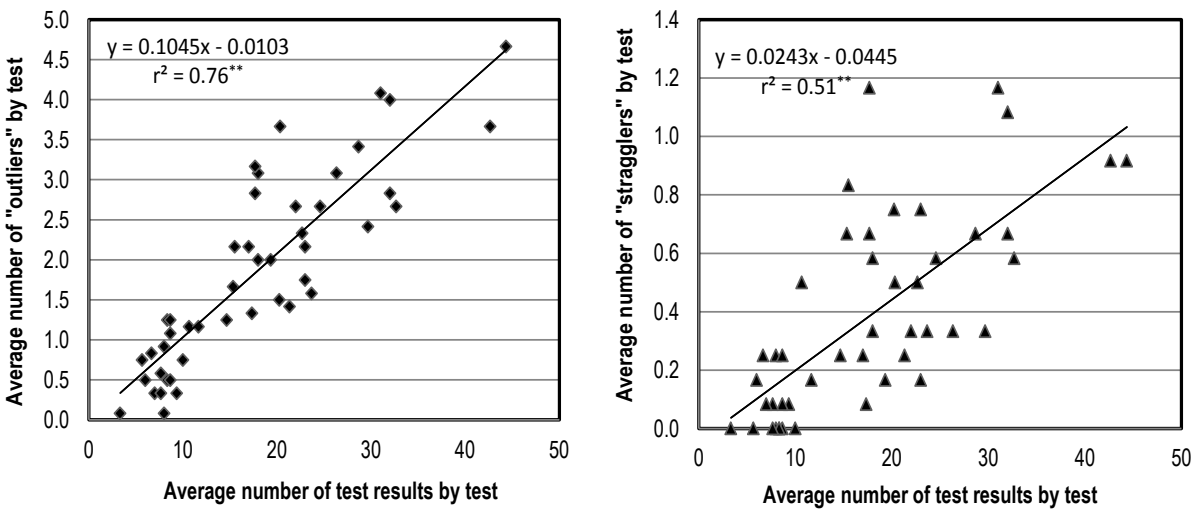

Figure 1. Trends in the average numbers of "outliers" and "stragglers" with average numbers of reported results for 46 soil tests in 2008-09.

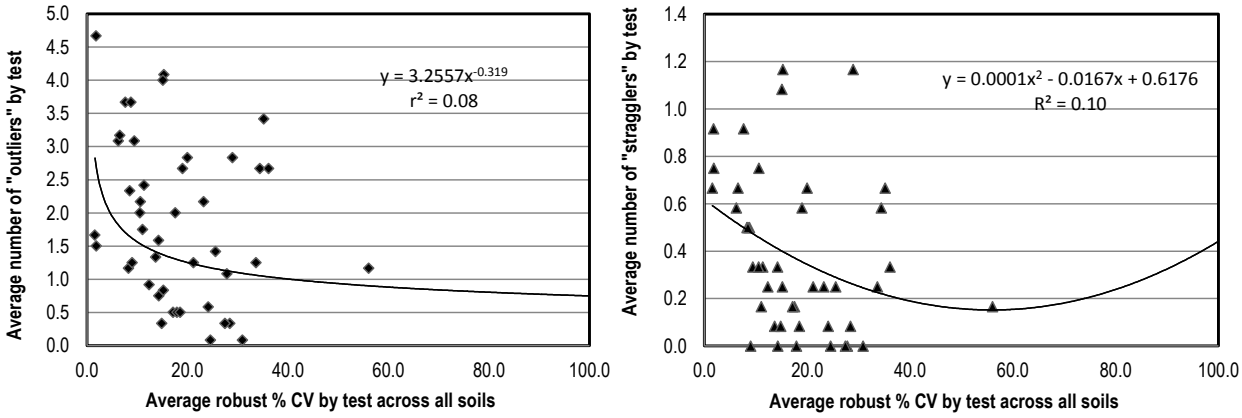

Figure 2. Non-linear relationships between average numbers of "outliers" and "stragglers", respectively, and corresponding average robust % CVs calculated for 45 soil tests in 2008-09.

Table 4. The seven best performed and worst performed soil chemical tests in 2008-09, based on percent robust coefficients of variation (grand medians) after the removal of initial "outliers" and "stragglers".

Best (Lowest Robust %CVs)	
Soil Method	***%CV***
Soil pH, 1:5 0.01 M $CaCl_2$ (4B2)	1.6
Soil pH, 1:5 water (4A1)	1.7
Soil pH, 1:5 0.01 M $CaCl_2$ (4B1)	1.7
Total Organic C (6B1 + 6B2 + 6B3)	4.6
Exchangeable Mg (15A1)	5.3
Exchangeable Ca (15A1)	5.6
Mehlich 3 Extractable K (18F1)	6.7

Worst (Highest Robust %CVs)	
Soil Method	***%CV***
DTPA Extractable Fe (12A1)	28.0
Water soluble Cl (5A1 + 5A2)	29.5
Mehlich 3 Extractable Fe (18F1)	29.5
Exchangeable Na (15D3)	30.5
Bray 1 Extractable P (9E1 + 9E2)	62.5
KCl Exchangeable Al (15G1)	81.0
Mehlich 3 Extractable B (18F1)	98.5

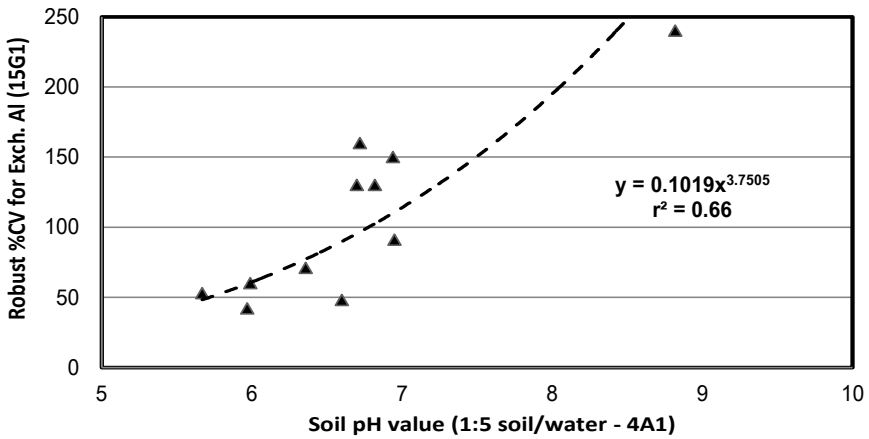

Figure 3. Relationship between 1:5 soil/water pH grand median values (method 4A1) and final robust grand median %CVs for method 15G1) for 11 soils (soil ASS34 excluded) used by ASPAC in 2008-09.

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*
Mr Dean Blacker (Laboratory Manager)	Advanced Soil Testing	PO Box 208, Deniliquin, NSW 2710	AUSTRALIA	dean@advancedsoilmapping.com.au
Mr Steve Byrne (Lab Manager)	Vintessential Laboratories	PO Box 2244, Dromana, VIC 3936	AUSTRALIA	steve@vintessential.com.au
Mr Ted Mikhail (Managing Director)	SWEP Pty Ltd Analytical Laboratories	PO Box 583, Noble Park, VIC 3174	AUSTRALIA	services@swep.com.au
Mr Robert Lascelles (Chief Chemist)	SGS Australia	Po Box 549, Toowoomba, QLD 4350	AUSTRALIA	Robert.Lascelles@sgs.com
Mr Peter McCafferty (Chief Chemist)	Chemistry Centre (WA)	125 Hay Street, East Perth, WA 6004	AUSTRALIA	pmccafferty@ccwa.wa.gov.au
Dr Geof Proudfoot (Laboratory Manager)	CSBP	2 Altona St, Bibra Lake, WA 6163	AUSTRALIA	geof.proudfoot@csbp.com.au
Mr Graham Lancaster (Laboratory Manager)	Norsearch - Environmental Analysis Laboratory, Southern Cross University	PO Box 5125, East Lismore, NSW 2480	AUSTRALIA	glancast@scu.edu.au
Mr Geoff Griffith (Technical Manager)	NSW Department of Primary Industries, Wollongbar Agricultural Institute, Inorganic Chemistry Laboratory	1243 Brunxner Hwy., Wollongbar, NSW 2477	AUSTRALIA	geoff.griffith@dpi.nsw.gov.au
Kerri Taylor (QC Co-ordinator)	Australian Laboratory Services, Brisbane Laboratory	32 Shand St., Stafford, QLD 4053	AUSTRALIA	Kerri.Taylor@alsenviro.com
Mr Philip Williams (Laboratory Manager)	Nutrient Advantage Laboratory Services	8 South Rd., Werribee, VIC 3030	AUSTRALIA	philip.williams@incitecpivot.com.au
Mr Dave Lyons (Principal Chemist)	Natural Resource Sciences Chemistry Centre, Department of Natural Resources and Water	Block B, 80 Meiers Rd., Indooroopilly, QLD 4068	AUSTRALIA	dave.lyons@nrm.qld.gov.au
Mr George Croatto	Department of Primary Industries, Werribee Centre, Inorganic Chemistry	621 Sneydes Rd., Werribee, VIC 3030	AUSTRALIA	george.croatto@dpi.vic.gov.au
Ms Julie Smith (Manager, Analytical Services)	CSIRO Land and Water Adelaide	Private Bag 2, Glen Osmond, SA 5064	AUSTRALIA	julie.smith@csiro.au
Ms Patricia Wallace (Laboratory Manager)	CSIRO Division of Plant Industry	GPO Box 1600, Canberra, ACT 2601	AUSTRALIA	Patricia.Wallace@csiro.au
Katie McBryde (Laboratory Manager)	Sydney Environmental & Soil Laboratory	PO Box 357, Pennant Hills, NSW 1715	AUSTRALIA	kate@sesl.com.au
Mr David Wade	The Environmental and Analytical Laboratories, Charles Sturt University Boorooma Campus, Building 269, Nathan Cobb Drive	Locked Bag 677, Wagga Wagga, NSW 2678	AUSTRALIA	eal@csu.edu.au

Name (position)	Facility	Street and/or Postal Address	Country	Email
Giang Nguyen (Quality Assurance Manager)	Sydney Water Corporation Analytical Services, Monitoring Services Division	51 Hermitage Road, West Ryde, NSW 2114	AUSTRALIA	giang.nguyen@sydneywater.com.au
Mr Matthew Lee (Laboratory Manager)	Melbourne School of Land and Environment, University of Melbourne	Water Street, Creswick, VIC 3363	AUSTRALIA	mattlee@unimelb.edu.au
Mr Stephen Young (Laboratory Manager)	Department of Lands, Scone Research Service Centre	PO Box 283, Scone, NSW 2337	AUSTRALIA	Stephen.Young@lands.nsw.gov.au
Mr Mark Emanuel (Senior Analyst)	School of Natural Science, University of Western Sydney, Hawkesbury Campus	Building K29, Room 19, Locked Bag 1797, Penrith South DC, NSW 1797	AUSTRALIA	m.emanuel@uws.edu.au
Ms Kristen Clancy (Manager, Natural Resources Laboratory)	Department of Environment and Climate Change	c/- DPI PMB, Yanco, NSW 2703	AUSTRALIA	Kristen.Clancy@environment.nsw.gov.au
Mrs Stephanie Cameron (Laboratory Operations Manager)	East West EnviroAg	82 Plain Street, Tamworth, NSW 2340	AUSTRALIA	admin@ewenviroag.com.au
Ms Sarah Murphy	Nutri-Lab Agricultural Laboratories	PO Box 782, Goondiwindi, QLD 4390	AUSTRALIA	nutrilab@bigpond.net.au
Mr Neil George (Director)	Agric-Lab, Division of Brookleigh Investments Pty Ltd	PO Box 96, Bull Creek, WA 6149	AUSTRALIA	neil_g@global.net.au
Ms Vesna Cook (Operations Manager)	Analytical Crop Management Lab., Primary Industries and Resources, SA PIRSA	PO Box 411, Loxton, SA 5333	AUSTRALIA	cook.vesna@saugov.sa.gov.au
Ms Linnea Moritz (Scientific Officer)	Ecowise Environmental Pty Ltd	73 Military Rd., Port Kembla, NSW 2505	AUSTRALIA	lmoritz@ecowise.com.au
Miss Tania Collins (Lab Technician)	Tweed Laboratory Centre, Tweed Shire Council	46 Enterprise Avenue, Tweed Heads South, NSW 2486	AUSTRALIA	taniac@tweedlab.com.au
Mr Phil Barnett (Manager)	Australian Perry Agricultural Laboratory	PO Box 327, Magill, SA 5072	AUSTRALIA	phil.barnett@apal.com.au
Mr Rob Cirocco (Manager)	Phosyn Analytical	P.O.Box 2594, Burleigh MDC, QLD 4220	AUSTRALIA	rcirocco@phosyn.com
Tracy Shaw (General Manager)	Analytical Reference Laboratory (WA)	46-48 Banksia Rd., Welshpool, WA 6106	AUSTRALIA	tracyshaw@arlwa.com.au
Mr Richard Bowles (Laboratory Tech/Manager)	Australian Soil Monitoring Services	PO Box 501, Wembley, WA 6913	AUSTRALIA	asms_lab@planfarm.com.au
Ms Lisa Hurry (Operations Manager)	AgVita Analytical	PO Box 188, Devonport, TAS 7310	AUSTRALIA	lhurry@agvita.com.au
Mr Mark Conyers (Soil Chemist)	NSW Department of Primary Industries, Wagga Wagga Agricultural Institute	Pine Gully Road, Wagga Wagga, NSW 2650	AUSTRALIA	mark.conyers@dpi.nsw.gov.au
Doreen Fernandez (Laboratory Operations Manager)	Agrifood Technology	260 Princes Highway, Werribee, VIC 3030	AUSTRALIA	doreen.fernandez@agrifood.com.au
Ian Grant (Director)	Agricultural Chemistry P/Ltd	72 Cothill Rd., Silkstone, QLD 4304	AUSTRALIA	igrant51@optusnet.com.au
Dr Angela Hanke (Laboratory Manager)	T-Systems	410 Langbeckers Road, Bundaberg, QLD 4670	AUSTRALIA	ahanke@tsystems.com.au

Name (position)	Facility	Street and/or Postal Address	Country	Email
Mark Broxton	Tasmanian Laboratory Services	1st Floor, 37 Federick St., Launceston, TAS 7250	AUSTRALIA	timothy.thompson@dspl.com.au
Joseph Uponi	International Institute of Tropical Agriculture (IITA), c/o Lambourn (UK) Ltd., Carolyn House	26 Dingwall Road, Croydon CR9 3EE	ENGLAND	J.Uponi@cgiar.org
Ami Sharma (PRO)	Fiji Agricultural Chemistry Laboratory MASLR	PO Box 77, Nausori	FIJI	ami.sharma@govnet.gov.fj
Jeetendra Patel (Scientific Officer)	Sugar Research Institute of Fiji Analytical Lab	PO Box 3560, Lautoka	FIJI	jeeteendrap@srif.org.fj
Ms Mereoni Degei Gonelevu (Quality Control Coordinator)	Institute of Applied Science Laboratory, University of the South Pacific	Suva	FIJI	gonelevu_m@usp.ac.fj
Léocadie Jamet	Laboratoire des Moyens Analytiques IRD	BP A5, Noumea	NEW CALEDONIA	Leocadie.Jamet@noumea.ird.nc
Mr Gary Glenn (Quality Manager)	Analytical Research Laboratories Ltd	PO Box 989, Napier	NEW ZEALAND	Gary.Glenn@ravensdown.co.nz
Mr Peter Lester (Managing Director)	Quantum Labs Ltd	Waipawa, Hawkes Bay 4210	NEW ZEALAND	dr.dirt@ihug.co.nz
Mr Tom Dutton (Laboratory Manager)	Landcare Research NZ Ltd	Private Bag 11052, Palmerston North	NEW ZEALAND	Duttont@landcareresearch.co.nz
Dr Roger Hill	Hill Laboratories	Private Bag 3205, Hamilton 3240	NEW ZEALAND	Roger.Hill@hill-labs.co.nz
Kaye Eason (Laboratory Coordinator)	Veritec	Private Bag 3020, Rotorua	NEW ZEALAND	kaye.eason@veritec.co.nz
Mr Vincent Koddy (Chief Chemist)	National Analysis Laboratory, PNG University of Technology	PO Box 79, Lae 414	PAPUA NEW GUINEA	vkoddy@nal.unitech.ac.pg
Mr Peter Corbett	National Agricultural Chemistry Laboratory, NARI	PO Box 8277, BOROKO 111 [National Capital District]	PAPUA NEW GUINEA	peter.corbett@nari.org.pg
Dr Gina Nilo (Chief Soil and Water Management)	Bureau of Soils and Water Management, Research Division	Elliptical Road, Quezon City	PHILIPPINES	ginapnilo@yahoo.com
Mark Anthony Balahay	Soil Science Department, College of Agriculture, Central Mindanao University	Musuan 8710, Bukidnon, Mindanao	PHILIPPINES	cmduque_46@lycos.com
Daya Perera	Alafua School of Agriculture and Food Technology-University of the South Pacific	Private Bag, Apia	SAMOA	perera_d@samoa.usp.ac.fj
Dr Pham Quang Ha (Head)	Soils Environment Research Department, National Institute for Soils and Fertilizers	Chem Tu Liem, Hanoi	VIETNAM	pqha-nisf@hn.vnn.vn
Dr Phung Vo Cam Hong	Nong Lam University, Chemical & Biological Analysis & Experimental Centre	Linh Trung, Thu Duc, Ho Chi Minh City	VIETNAM	hongpvc@yahoo.com
Ms Pham Thi Doan (Soil Scientist)	Institute for Agricultural Sciences of South Vietnam, Ministry of Agriculture and Rural Development	Institute for Agricultural Science & Technology, District 1, Hochiminh City	VIETNAM	phamthidoan8@gmail.com

Appendix 2: Homogeneity data and statistical assessments* for Total Soil N% (Dumas N) on the 12 soils in ASPAC's 2008-09 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
Sub-sample													
1	Rep 1	0.041	0.291	0.076	0.511	0.293	0.118	0.075	0.058	0.208	0.107	0.115	0.138
	Rep 2	0.068	0.249	0.065	0.503	0.288	0.114	0.087	0.032	0.206	0.106	0.124	0.138
2	Rep 1	0.046	0.290	0.073	0.500	0.295	0.117	0.079	0.063	0.205	0.106	0.110	0.145
	Rep 2	0.051	0.257	0.065	0.533	0.288	0.112	0.076	0.041	0.208	0.105	0.120	0.151
3	Rep 1	0.055	0.284	0.070	0.508	0.293	0.115	0.080	0.046	0.202	0.108	0.111	0.134
	Rep 2	0.054	0.255	0.065	0.510	0.287	0.100	0.078	0.056	0.208	0.104	0.115	0.154
4	Rep 1	0.055	0.298	0.072	0.482	0.295	0.116	0.078	0.040	0.204	0.108	0.114	0.146
	Rep 2	0.048	0.275	0.065	0.512	0.287	0.116	0.071	0.049	0.206	0.110	0.115	0.150
5	Rep 1	0.054	0.284	0.072	0.506	0.293	0.111	0.081	0.057	0.212	0.110	0.115	0.148
	Rep 2	0.045	0.272	0.068	0.514	0.288	0.113	0.071	0.056	0.208	0.107	0.113	0.160
6	Rep 1	0.061	0.286	0.070	0.519	0.298	0.126	0.075	0.058	0.202	0.111	0.117	0.155
	Rep 2	0.045	0.278	0.063	0.514	0.294	0.110	0.075	0.061	0.198	0.105	0.123	0.148
7	Rep 1	0.055	0.279	0.074	0.501	0.291	0.108	0.074	0.042	0.215	0.105	0.115	0.170
	Rep 2	0.033	0.271	0.067	0.514	0.302	0.116	0.067	0.047	0.201	0.108	0.118	0.154
8	Rep 1	0.062	0.289	0.065	0.517	0.278	0.118	0.082	0.056	0.200	0.107	0.106	0.136
	Rep 2	0.031	0.275	0.064	0.509	0.290	0.113	0.076	0.064	0.205	0.106	0.109	0.144
9	Rep 1	0.051	0.280	0.065	0.519	0.296	0.117	0.078	0.046	0.212	0.111	0.115	0.154
	Rep 2	0.037	0.286	0.062	0.502	0.290	0.119	0.087	0.055	0.202	0.105	0.114	0.138
10	Rep 1	0.052	0.288	0.067	0.498	0.296	0.115	0.067	0.046	0.202	0.110	0.125	0.143
	Rep 2	0.034	0.281	0.059	0.517	0.289	0.113	0.071	0.053	0.209	0.103	0.112	0.146

Mean	0.049	0.278	0.067	0.509	0.292	0.114	0.076	0.051	0.206	0.107	0.115	0.148
Analytical SD	0.00015	0.00024	0.000032	0.000074	0.000027	0.00003	0.000026	0.000079	0.00002	0.000008	0.000021	0.000063
Sampling SD	0	0	0	0.000036	0	0	0.000006	0	0	0	0.000003	0.000016
SD proficiency data	0.00526	0.01927	0.00445	0.01038	0.00964	0.00741	0.00445	0.00593	0.0126	0.01408	0.01408	0.0185
Homogeneity index	0	0	0	0.57**	0	0	0.54**	0	0	0	0	0.2154
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.*

** Although the homogeneity Index is >0.3, the critical values for test (c) were less than the sampling variance

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" 2008-09 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 2008-09 Electrical conductivity 1:5 soil-water (3A1) dS/m											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.106	0.266 ††	0.479	0.739	0.200	0.121	0.062	0.610	0.086	0.061	0.079	0.182
L007	3A1	0.120	0.330	0.670	0.850	0.250	0.120	0.070	0.670	0.100	0.070	0.080	0.180
L009	3A1	0.119	0.297	0.502	0.763	0.210	0.121	0.067	0.632	0.093	0.065	0.080	0.197
L011	3A1	0.110	0.330	0.600	0.900	0.260	0.110	0.060	0.610	0.100	0.070	0.090	0.180
L012	3A1	0.117	0.300	0.567	0.817	0.230	0.120	0.070	0.623	0.113	0.083 †	0.090	0.207
L013	3A1	0.110	0.290	0.510	0.770	0.190	0.100	0.060	0.590	0.090	0.060	0.080	0.180
L014	3A1	0.260 †	0.350	0.720	0.860					0.150 ††	0.090 ††	0.190 ††	0.220
L018	3A1	0.123	0.334	0.581	0.867	0.232	0.117	0.064	0.630	0.091	0.064	0.080	0.188
L019	3A1	0.118	0.319	0.697	0.788	0.235	0.119	0.650 ††	0.598	0.116 ††	0.082	0.093	0.202
L022	3A1	0.116	0.303	0.599	0.796	0.200	0.108	0.060	0.598	0.095	0.065	0.080	0.181
L023	3A1	0.116	0.313	0.617	0.763	0.238	0.117	0.063	0.627	0.106	0.068	0.078	0.202
L024	3A1	0.124	0.388 ††	0.074 ††	0.088 †	0.254	0.129	0.077 †	0.622	0.076	0.042 ††	0.053 ††	0.100 ††
L026	3A1	0.123	0.312	0.683	0.719	0.238	0.116	0.066	0.618	0.108	0.068	0.079	0.202
L027	3A1	0.112	0.298	0.616	0.885	0.233	0.129	0.071	0.671	0.120 ††	0.075	0.097 †	0.220
L028	3A1	0.120	0.310	0.550	0.790	0.220	0.130	0.070	0.650	0.100	0.070	0.090	0.210
L030	3A1	0.117	0.301	0.649	0.722	0.229	0.111	0.061	0.600	0.103	0.070	0.075	0.191
L032	3A1	0.128	0.330	0.641	0.857	0.219	0.124	0.068	0.677	0.090	0.065	0.081	0.196
L035	3A1	78 †	281 ††	1.10 ††	0.700	0.175	0.088 †	0.046 †	0.541 ††	0.080	0.050	0.060 ††	0.150 ††
L036	3A1	0.102 †	0.280	0.518	0.715	0.194	0.107	0.061	0.580	0.081	0.058	0.075	0.180
L042	3A1	0.120	0.310	0.620	0.780	0.210	0.110	0.060	0.630	0.090	0.060	0.080	0.200
L044	3A1	0.120	0.324	0.575	0.824	0.217	0.126	0.066	0.634	0.090	0.064	0.082	0.196
L045	3A1	0.130	0.330	0.620	0.770	0.200	0.100	0.100 ††	0.600	0.100	0.080	0.090	0.190
L046	3A1	0.109	0.821 ††	0.541	0.316 †					0.094	0.067	0.082	0.207
L055	3A1	0.118	0.336	0.599	0.877	0.216	0.116	0.066	0.669	0.107	0.074	0.088	0.220
L056	3A1	0.110	0.320	0.600	0.800	0.200	0.100	0.050 †	0.620	0.080	0.050	0.070	0.190
L060	3A1	0.121	0.332	0.677	0.864	0.222	0.123	0.068	0.639	0.095	0.068	0.084	0.192
L063	3A1	0.110	0.310	0.650	0.760	0.190	0.100	0.050 †	0.570	0.090	0.060	0.070	0.170
L064	3A1	0.124	0.320	0.616	0.836	0.207	0.117	0.060	0.615	0.093	0.063	0.083	0.190
L080	3A1	0.114	0.386 ††	0.563	0.774	0.191	0.107	0.058	0.589	0.087	0.060	0.077	0.184
L084	3A1	0.116	0.298	0.514	0.803								

L100	3A1	0.124	0.328	0.556	0.845	0.201	0.113	0.063	0.612	0.100	0.069	0.083	0.191
L120	3A1	0.060 †	0.180 ††	0.370 ††	0.500 †					0.120 ††	0.090 ††	0.100 ††	0.250 ††
L133	3A1	0.130	0.299	0.556	0.693	0.024 ††	0.012 †	0.007 ††	0.063 ††	0.112	0.073	0.082	0.212
L135	3A1	0.115	0.325	0.664	0.703	0.220	0.101	0.055	0.534 ††	0.095	0.059	0.067	0.154
L137	3A1	0.128	0.354	0.624	0.872					0.090	0.066	0.079	0.190
L139	3A1	0.112	0.315	0.586	0.789	0.215	0.097	0.055	0.556 †	0.088	0.061	0.066 †	0.172
L140	3A1	0.120	0.320	0.590	0.840	0.240	0.120	0.070	0.650	0.090	0.060	0.070	0.240 ††
L141	3A1	0.136	0.305	0.519	0.729	0.233	0.153 †	0.106 ††	0.573	0.107	0.084 †	0.099 †	0.199
L143	3A1	0.120	0.320	0.570	0.830	0.210	0.120	0.070	0.640	0.100	0.070	0.090	0.210
L156	3A1	0.124	0.316	0.561	0.818	0.200	0.110	0.070	0.580	0.086	0.061	0.077	0.179
L158	3A1	0.114	0.301	0.539	0.785	0.208	0.115	0.061	0.626	0.098	0.088 ††	0.063 †	0.079 ††
L159	3A1	0.123	0.322	0.592	0.822	0.207	0.116	0.061	0.624	0.100	0.071	0.090	0.229
L160	3A1	0.121	0.325	0.604	0.810	0.220	0.119	0.063	0.634	0.092	0.066	0.079	0.187
L161	3A1	0.111	0.310	0.553	0.809	0.202	0.114	0.061	0.637	0.091	0.061	0.075	0.185
L162	3A1					0.213	0.119	0.064	0.637	0.092	0.064	0.081	0.186

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Soil pH, 1:5 soil-water (4A1)											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	5.32	5.08	8.34	6.4	6.32	6.28	5.52	9.98	6.48	6.13	5.88	6.32
L003	4A1	5.4	5.13	8.24	6.41								
L004	4A1	5.49	5.17	8.05	6.43	6.11	6.10	5.64	10.07	6.38	6.42	6.20 ††	6.24
L007	4A1	5.42	5.17	8.15	6.44	6.05	6.04	5.18	9.86	6.30	6.03	5.86	6.29
L009	4A1	5.11 †	4.83 ††	8.08	6.24	6.21	6.24	5.54	9.9	6.41	6.23	5.92	6.36
L011	4A1	5.47	5.19	8.48	6.71 †	6.51	6.44	5.63	10.06	6.51	6.06	5.84	6.41
L012	4A1	5.5	5.1	8.3	6.6	6.18	6.19	5.41	9.86	6.22	5.99	5.76	6.14
L013	4A1	5.4	5.3	8.2	6.3	6.1	6	5.4	9.4 ††	6.5	6	6	6.2
L014	4A1	5.41	5.14	8.43	6.54					6.45	6.21	5.9	6.27
L017	4A1	5.09 †	4.86 ††	7.84 ††	6.28	6.17	6.06	5.2	9.37 ††	6.42	6.09	5.83	6.32
L018	4A1	5.5	5.17	8.39	6.43	6.3	6.31	5.53	10	6.54	6.19	5.9	6.45
L019	4A1	5.16 †	4.96 †	8.25	6.42	6.07	6.08	5.29	9.85	5.72 ††	5.38 ††	5.24 ††	5.92 ††
L022	4A1	5.47	5.14	8.34	6.41	6.25	6.24	5.52	9.82	6.4	6.09	5.85	6.37
L023	4A1	5.42	5.1	8.42	6.42	6.03	6.06	5.27	10.2	6.42	6.1	5.84	6.33
L024	4A1	4.36 †	4.36 ††	7.31 ††	5.9 †	5.49 ††	5.15 †	4.5 ††	8.56 ††	5.68 ††	5.2 ††	5.02 ††	4.99 ††
L026	4A1	5.51	5.18	8.4	6.44	6.27	6.27	5.5	10	6.45	6.11	5.79	6.33
L027	4A1	5.2 †	5.1	8.2	6.4	6.2	6.2	5.4	9.7	6.1 †	5.9	5.8	6.2
L028	4A1	5.0 †	5.0	8.5	6.5	6.2	6.1	5.3	9.9	6.2	5.8	5.5 ††	6.1
L029	4A1	5.44	5.24	8.44	6.45					6.96 ††	7.07 ††	7.03 ††	7.14 ††
L030	4A1	5.38	5.11	8.27	6.38	6.2	6.16	5.45	9.81	6.35	5.99	5.76	6.28

L032	4A1	5.53	5.22	8.43	6.49	6.29	6.34	5.59	9.97	6.55	6.24	6.03	6.46
L035	4A1	6.01 †	5.17	8.24	6.54	6.2	6.2	5.4	10.2	6.2	6	5.8	6.1
L036	4A1	5.53	5.25	8.17	6.47	6.31	6.24	5.55	9.83	6.49	6.15	5.91	6.4
L042	4A1	5.56	5.22	8.5	6.52	6.4	6.4	5.7	10.1	6.54	6.19	5.81	6.38
L044	4A1	5.44	5.11	8.36	6.28	6.1	6.11	5.46	9.92	6.3	6.09	5.86	6.28
L045	4A1	5.5	5.2	8.4	6.5	6.3	6.3	5.5	9.9	6.4	6.1	5.9	6.4
L046	4A1	5.45	6.4 ††	8.31	5.23 †					6.65	6.271	5.99	6.55
L055	4A1	5.42	5.16	8.32	6.44	6.34	6.32	5.48	9.61	6.37	6.09	5.86	6.29
L056	4A1	5.44	5.13	8.37	6.44	6.32	6.34	5.57	10.01	6.42	6.08	5.82	6.33
L060	4A1	5.63	5.18	8.03	6.52	6.25	6.36	5.5	9.95	6.94 ††	6.29	6.03	6.42
L063	4A1	5.6	5.2	8.5	6.5	6.4	6.4	5.6	10.1	6.4	6	5.8	6.3
L080	4A1	5.95 †	5.21	8.17	6.56	6.23	6.244	5.45	9.52 ††	6.6	6.33	6	6.3
L084	4A1	5.52	5.2	8.27	6.48								
L100	4A1	5.6	5.14	8.33	6.57	6.33	6.29	5.48	10.05	6.53	6.28	6.11 ††	6.3
L120	4A1	5.5	5	8.2	6.3					6.6	6.6 ††	6.6 ††	6.6 †
L133	4A1	4.8 †	4.7 ††	8.2	6.2 †	6.2	6.2	5.3	10.2	5.6 ††	5.5 ††	5.4 ††	5.9 ††
L135	4A1	5.16 †	5.1	8.2	6.34	6.1	6.04	5.25	9.73	5.79 ††	5.39 ††	5.26 ††	5.99 ††
L137	4A1	5.05 †	4.83 ††	7.99	6.37					6.49	6.15	5.89	6.11
L139	4A1	5.2 †	4.92 †	8.37	6.38	6.14	6.09	5.33	9.9	6.24	5.87	5.56 ††	6.19
L140	4A1	5.3	5.1	8.3	6.4	6.1	6.2	5.4	10.1	6.8 †	6.4	6.1 ††	6.4
L141	4A1	5.46	5.23	8.44	6.54	6.33	6.39	5.58	9.91	6.45	6.04	5.92	6.38
L143	4A1	5.73 †	5.23	8.33	6.59	6.28	6.34	5.6	9.99	6.54	6.25	5.95	6.4
L156	4A1	5.61	5.22	8.25	6.55	6.12	6.28	5.51	9.97				
L158	4A1	5.53	5.21	8.43	6.47	6.329	6.32	5.58	10.02	6.49	6.16	5.91	6.38
L159	4A1	5.42	5.1	8.15	6.39	6.2	6.18	5.6	10.34 ††	6.5	6.14	5.91	6.28
L160	4A1	5.6	5.2	8.4	6.5	6.2	6.2	5.5	9.9	6.56	6.08	5.85	6.39
L161	4A1	5.38	5.1	8.35	6.53	6.16	6.16	5.38	9.82	6.37	6.02	5.82	6.32
L162	4A1					6.1	6.07	5.26	9.83	6.21	5.82	5.57 ††	6.21

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Soil pH, soil-0.01 M $CaCl_2$ — direct (4B1) and indirect (4B2)											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	6.96 †	4.76	7.63	6.17								
L004	4B1	5.16	4.77	7.55	6.23	5.24 ††	5.18 †	4.84	7.90	6.00	5.54 ††	5.13	5.28
L009	4B1	4.85	4.61 ††	7.61	6.02 †	5.76	5.50	4.69	8.37	5.74	5.16	5.00	5.42
L014	4B1	4.98	4.78	7.81	6.27					5.65	5.09 †	4.93	5.32
L023	4B1					5.56	5.40	4.54	8.70				
L028	4B1	4.90	4.60 ††	7.50	6.20	5.60	5.50	4.60	8.40	5.60	5.00 ††	4.80 †	5.30
L029	4B1									6.28 ††	6.27 ††	6.25 ††	6.25 ††

L032	4B1	5.03		4.83		7.85		6.21											
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	
L064	4B1	4.79	†	4.66	†	7.50		6.41	†	5.70		5.45		4.63		8.35		5.79		5.18		5.06		5.43	
L100	4B1	5.02		4.77		7.65		6.27		5.81		5.59		4.73		8.60		5.88		5.19		5.03		5.35	
L137	4B1	5.31	†	4.80		7.34		6.28										5.88		5.20		5.11		5.21	
L141	4B1	5.04		4.85		7.69		6.33		5.71		5.60		4.78		8.31		5.93		5.21		5.06		5.52	
L156	4B1																	6.43	††	6.12	††	5.99	††	6.37	††
L158	4B1	5.04		4.79		7.71		6.21		5.70		5.76		4.80		8.33		5.78		5.12		4.93		5.38	
L160	4B1	5.00		4.80		7.80		6.30		5.70		5.60		4.70		8.50									
L007	4B2																	5.7		5.2		5.12		5.46	
L011	4B2	5.29		5.12	†	8.07		6.50	†	5.93		5.69		4.78		8.90		5.87	†	5.22		5.13		5.66	††
L014	4B2	4.96		4.71		7.75		6.30										5.57	††	4.99	††	4.88		5.23	
L018	4B2	4.94		4.75		7.78		6.13		5.70		5.52		4.66		8.63		5.76		5.14		4.97		5.40	
L019	4B2	4.80		4.69		7.77		6.15		6.07	††	6.02	†	4.94		8.14		5.59	††	5.20		4.95		5.29	
L022	4B2	5.01		4.75		7.76		6.18		5.69		5.52		4.69		8.38		5.70		5.08	†	4.95		5.41	
L023	4B2	4.93		4.76		7.86		6.19										5.65	†	5.03	††	4.87		5.32	
L026	4B2	5.09		4.83		7.83		6.16		5.74		5.58		4.73		9.00		5.78		5.13		4.96		5.39	
L027	4B2	5.90	†	5.10	†	6.20	††	6.00				5.60		4.70		8.30		5.70		5.10		4.90		5.30	
L030	4B2	5.09		4.84		7.81		6.17		5.75		5.56		4.76		8.94		5.78		5.16		4.97		5.45	
L032	4B2									5.72		5.58		4.72		8.64		5.82		5.21		5.07		5.47	
L036	4B2	5.20		4.98		7.75		6.27		5.65		5.52		4.94		8.54		5.76		5.16		5.06		5.49	
L042	4B2																	5.80		5.17		5.01		5.40	
L045	4B2	4.90		4.80		7.90		6.20		5.70		5.50		4.70		8.60		5.80		5.20		5.10		5.50	
L046	4B2	5.05		6.08	††	7.61		4.77	†									5.76		5.13		4.96		5.41	
L055	4B2	5.00		4.81		7.87		6.28		5.76		5.60		4.69		8.36		5.77		5.19		5.05		5.41	
L056	4B2	5.00		4.81		7.74		6.24		5.80		5.62		4.78		8.75		5.83		5.20		5.05		5.43	
L063	4B2	5.10		4.90		8.00		6.30		5.90		5.80		4.80		8.80		5.80		5.20		5.10		5.50	
L084	4B2	5.01		4.83		7.77		6.13																	
L133	4B2	4.90		4.70		7.50		6.50	†	5.60		5.50		4.60		8.80		7.30	††	7.00	††	6.50	††	6.50	††
L135	4B2	4.93		4.75		7.61		6.04		5.50		5.39		4.55		8.19		5.68	†	5.06	††	4.92		5.35	
L139	4B2									5.63		5.47		4.71		9.50		5.82		5.45	††	5.15		5.76	††
L140	4B2	4.70	†	4.60		7.60		6.00		5.50		5.40		4.60		8.80		5.80		5.30		5.10		5.40	
L143	4B2	5.07		4.92		7.50		6.12		5.70		5.66		4.82		9.55		5.80		5.21		5.31		5.62	

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: : Water soluble Cl — potentiometric (5A1) and autocolour (5A2) mg Cl/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	92	21	113	18	21.0	11	14	128	21	18	11	43
L009	5A1	116	62 ††	93.9	29.6	17.9	18.5	26.7	152	28.3	38.8 ††	19.9 †	41.7
L011	5A1	123 †	25	88	27	18.0	2.8	5.8	119	25	11	10	37
L013	5A1	88	21	66	15	22.0	23	26	100	11	7.5	5	28.5
L018	5A1	93	22.8	74.1	9.9	22.5	13.9	17.5	123	17.1	12.9	7.3	31.1
L019	5A1	69	130 ††	84	25	80.7 ††	66.2 †	57.8 ††	344 ††	33	63 ††	18	72 ††
L022	5A1	86.5	19.2	68.1	18.1	22.8	11	15.9	113	17.3	13.8	7.3	40.8
L023	5A1	81.4	16.1	62.3	13.8	19.8	9.4	11.8	126	15.6	11.1	4.31	32.6
L026	5A1	69.7	16.7	54.3	17								
L027	5A1	50 †	1 †	40	2	10.0	10	10	85	60 ††	40 ††	40 ††	100 ††
L030	5A1	83.5	19.2	65	16								
L032	5A1	84.4	28.2	65.4	22.4	29.0	15	20	116	16	11	7.4	36
L035	5A1					18.5	70.9 †	43.1 ††	123	23.1	50.9 ††	18.4	13.9 †
L036	5A1	80	22.2	66.8	18.7	28.4	9.23	12.7	108	15.5	12.2	5.69	30.7
L044	5A1	86	17.1	63	14.9					19	12	5	34
L055	5A1	92	15	68	15	23.0	11	15	112	15	10	4.2	37
L060	5A1	9.9 †	51.9 ††	70	54.5 †	36.3	52.6 †	78.7 ††	256 ††				
L064	5A1	90.6	36.3	87	33.2	21.8	9.83	13.7	140	21.3	16.9	14.1	42.4
L080	5A1	65	19	83.3	27.5	16.5	8.62	7.85	143	17	8.14	5.5	36
L084	5A1	117	36	100	41								
L133	5A1					0.08 ††	0.59	0.11	33.5 ††	10	7.3	3.5	24
L135	5A1	60.9	26.1	43.5	17.4	26.6	17.8	17.8	62.1 ††	26.0	17.0	17.0	35.0
L137	5A1	50 †	18	36	11					7	14	3.5	17
L140	5A1	94	29	87	30	31.0	19	23	130	26	15	17	64 ††
L143	5A1	101	26	79	26	31.0	20	24	157	23	15	37 ††	10 ††
L159	5A1	75	30	90	30	62.8 ††	60.6 †	60.4 ††	124				
L160	5A1	85	15	65	10	20.0	7	10	115	15	10	5	30
L161	5A1	130 †	80 ††	115	48 †	22.0	14	16	84	14	11	9.4	38
L026	5A2					14.6	5.0	6.2	99.4	15.2	14.3	11.5	29.2
L028	5A2	75	26	58	22	24	10	10	104	27	24	10	43
L030	5A2					19.9	7.4	12.7	104	13.7	10.6	4.9	37.9
L045	5A2					57	32	25	270 ††				
L120	5A2									21	11	9.8	43
L139	5A2	71	27	67	17	33	27	25	193 ††	20	23	14	34
L162	5A2					22	9.8	13	116	17	10	4.6	38
L026	5A2					14.6	5.0	6.2	99.4	15.2	14.3	11.5	29.2

L028	5A2	75	26	58	22	24	10	10	104	27	24	10	43
L030	5A2					19.9	7.4	12.7	104	13.7	10.6	4.9	37.9
L045	5A2					57	32	25	270 ††				
L120	5A2									21	11	9.8	43
L139	5A2	71	27	67	17	33	27	25	193 ††	20	23	14	34
L162	5A2					22	9.8	13	116	17	10	4.6	38

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Organic Carbon — Walkley and Black (6A1) + Other %C											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.95 †	2.52	1.24	6.24 †	3.71	1.46	2.24 †	0.49	2.78	1.66	1.56	1.99
L004	6A1	0.59	1.96	1.04	4.46	3.54	1.43	1.92	0.55	2.48	1.56	1.35	1.86
L007	6A1	0.76	2.24	0.67 ††	5.62 †	3.78	1.35	1.64	0.49	2.73	1.50	1.54	1.73
L009	6A1	0.61	2.14	1.11	4.89	3.44	0.92	1.84	3.25 ††	2.16	1.25	0.92 †	1.40
L011	6A1	0.68	2.00	1.08	4.13	3.03	1.16	1.68	0.48	2.44	1.38	1.21	1.41
L012	6A1	0.76	2.31	1.18	5.28	3.67	1.31	1.93	0.43	2.60	1.59	1.46	1.84
L013	6A1					4.00	1.50	2.60 ††	1.00 ††	2.90	1.70	1.50	2.00
L014	6A1	3.01 †	3.98 ††	1.99 ††	3.72 †					3.91 ††	4.56 ††	3.93 ††	2.78 ††
L017	6A1	0.75	2.29	1.28	4.74	4.09	1.71	2.67 ††	0.66	2.91	1.82	1.68	2.06
L018	6A1	0.75	2.11	1.14	4.37	3.14	1.18	1.81	0.48	2.39	1.53	1.30	1.78
L022	6A1	0.70	2.14	1.19	4.79	3.29	1.24	1.93	0.53	2.35	1.52	1.31	1.63
L023	6A1	0.64	2.34	1.16	4.65	3.57	1.44	2.10	0.68	2.43	1.54	1.35	1.70
L024	6A1	1.25 †	2.88 ††	1.67 ††	4.89	3.41	1.89 †	2.84 ††	1.27 ††	3.38 ††	1.75	1.55	1.93
L026	6A1	0.66	2.14	1.15	4.67	3.31	1.24	1.79	0.47	2.44	1.52	1.27	1.41
L028	6A1	0.68	1.88	1.21	4.72	2.99	1.39	1.75	0.58				
L029	6A1	0.68	2.21	1.03	5.22					2.60	1.70	1.40	1.80
L030	6A1	0.83	2.29	1.60 ††	4.91	3.49	1.56	2.07	0.73	3.21 ††	1.86	1.46	2.15
L035	6A1	0.61	2.03	1.05	5.38	3.39	1.50	1.88	0.51	2.50	1.32	1.53	2.12
L045	6A1	0.81	2.21	1.31	4.54	3.24	1.38	2.04	0.64	2.57	1.51	1.35	1.71
L056	6A1									2.44	1.40	1.21	1.72
L060	6A1	0.60	1.90	1.03	4.33	3.15	1.17	1.72	0.50	2.23	1.34	1.22	1.60
L064	6A1	0.66	2.27	1.26	5.23	3.75	1.38	1.89	0.56	2.86	1.61	1.48	1.89
L080	6A1	0.82	1.88	1.31	4.69	3.20	1.21	1.54	0.69	1.94	1.13	1.01	1.18 ††
L084	6A1	0.65	2.08	1.10	4.43								
L135	6A1	0.72	2.16	1.12	4.80	2.07 ††	0.87 †	1.33 †	0.48	2.63	1.68	1.43	1.73
L137	6A1	0.71	2.16	1.27	4.60					2.30	1.54	1.28	1.62
L139	6A1					4.30	1.45	2.28 †	0.52	2.81	1.98	1.40	1.98
L143	6A1	0.68	1.93	1.13	4.27	3.25	1.28	1.91	0.56	2.45	1.38	1.32	1.79
L158	6A1	0.70	2.04	1.12	4.48	3.03	1.25	1.77	0.54	2.19	1.38	1.28	1.56

L160	6A1	0.63	2.05	1.14	4.70	3.28	1.21	1.87	0.53	2.25	1.37	1.16	1.61
L161	6A1	1.07 †	2.94 ††	1.38	5.56	3.65	1.33	1.83	0.59	2.34	1.45	1.03	1.90
L162	6A1					3.04	1.21	1.71	0.44	2.21	1.42	1.27	1.67
L100	Other	0.82	2.27	1.48 †	4.39	3.5	1.5	2.05	0.92 ††	2.26	1.63	1.34	1.67
L156	Other	0.82	2.44	1.72 ††	5.16								

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Total Organic Carbon — 6B1 + 6B2 + 6B3 + Other %C											
		June 2004 (Round 104)				*September 2004 (Round 304)*				*February 2005 (Round 504)*			
		ASS 61	ASS 62	ASS 63	ASS 64	ASS 91	ASS 92	ASS 93	ASS 94	ASS 21	ASS 22	ASS 23	ASS 24
L009	6B3	0.42 †	2.28	1.48	5.17	3.49	1.02 †	2.15	3.80	2.45	1.37 ††	1.05	1.67 †
L013	6B3	0.80	2.50	1.50	5.30								
L019	6B3	0.79	2.45	1.80	5.52	3.91	1.49	2.37	4.09	2.61	1.53	1.25	1.86
L022	6B3	0.80	2.40	1.38	4.90	3.72	1.43	2.29	0.58	2.68	1.69	1.45	1.79
L023	6B1	0.76	2.34	1.34	4.75	3.71	1.48	2.36	0.49	2.61	1.63	1.46	1.86
L027	6B3	0.52 †	1.88 ††	1.17	3.46 †	3.04 ††	0.96 †	2.18	0.35	2.23 ††	1.28 ††	0.92 ††	1.33 ††
L028	Other	0.80	2.40	1.20	5.40	3.05 ††	1.39	2.40	0.58				
L030	6B3	0.82	2.57	1.84	5.40	3.91	1.46	2.46	4.17	2.89	1.73	1.34	1.95
L032	6B3	0.83	2.49	1.29	5.45	3.84	1.45	2.48	0.66	2.79	1.66	1.48	2.03
L036	6B2	0.86	2.52	1.82	5.33	3.77	1.53	2.71	4.12	2.85	1.48	1.56	1.85
L042	6B3	0.82	2.39	1.47	5.37	3.93	1.52	2.55	0.92	2.83	1.65	1.44	1.90
L045	6B3					3.92	1.52	2.62	4.17	2.82	1.67	1.36	1.92
L046	6B3	0.80	2.42	1.72	5.07					2.72	1.61	1.31	1.83
L060	6B3	0.85	2.58	1.41	5.04	4.10	1.45	2.40	0.59	2.95	1.70	1.47	1.90
L063	Other	0.87	2.51	1.79	5.21					2.76	1.65	1.53	1.98
L140	6B3	1.70 †	4.40 ††	2.50	5.80	4.00	2.31 †	4.01 ††	2.73	3.15 †	2.57 ††	1.88 ††	1.35 ††
L156	Other	0.82	2.44	1.72	5.16	3.77	1.38	2.43	3.16	2.74	1.60	1.36	1.88
L157	6B1	2.40 †	4.90 ††	1.40	0.98 †					1.66 ††	2.00 ††	1.29	2.54 ††
L158	6B3					3.70	1.42	2.40	1.52	2.85	1.66	1.39	2.02

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Total N — Kjeldahl, steam distillation (7A1) + autocolour (7A2) - part pool %N											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					0.413 ††	0.273 †	0.126 †	0.091 ††	0.224	0.105	0.112	0.144
L007	7A1	0.080	0.240	0.110	0.560	0.310	0.120	0.130 ††	0.050	0.230	0.090	0.120	0.160
L011	7A1	0.072	0.213	0.087	0.491	0.279	0.110	0.075 †	0.054	0.135 ††	0.034 ††	0.036 ††	0.068 ††
L012	7A1	0.063	0.224	0.092	0.523	0.283	0.108	0.094	0.064	0.217	0.112	0.113	0.159
L013	7A1	0.060	0.230	0.090	0.530	0.310	0.120	0.110	0.050	0.230	0.120	0.130	0.170
L014	7A1	0.050	0.170 ††	0.060	0.500					0.167 ††	0.143	0.121	0.158
L017	7A1					0.296	0.132	0.133 ††	0.080	0.217	0.126	0.114	0.171
L018	7A2	0.074	0.237	0.104	0.520	0.300	0.117	0.100	0.066	0.225	0.118	0.123	0.160
L019	7A1	0.057	0.211	0.085	0.541	0.310	0.120	0.110	0.060	0.248	0.113	0.121	0.165
L022	7A1					0.298	0.117	0.111	0.055	0.230	0.120	0.140 ††	0.160
L023	7A1	0.069	0.209	0.090	0.487								
L024	7A1	0.068	0.228	0.079	0.513	0.286	0.113	0.101	0.064	0.217	0.112	0.117	0.148
L026	7A1	0.055	0.240	0.072	0.550	0.270	0.105	0.092	0.056	0.209	0.104	0.099 †	0.139
L027	7A1	0.069	0.214	0.091	0.438	0.298	0.119	0.097	0.066				
L029	7A1	0.061	0.209	0.080	0.467					0.202	0.097	0.117	0.131
L032	7A1	0.054	0.224	0.087	0.552	0.298	0.106	0.096	0.053	0.237	0.116	0.127	0.173
L035	7A1	0.070	0.210	0.100	0.550	0.310	0.150 †	0.110	0.070	0.240	0.130	0.150 ††	0.380 ††
L044	7A1	0.065	0.233	0.098	0.496	0.291	0.121	0.105	0.068	0.216	0.107	0.118	0.140
L045	7A1	0.120 †	0.320 ††	0.150 ††	0.600 †	0.340	0.160 †	0.130 ††	0.090 †				
L046	7A1									0.240	0.127	0.126	0.169
L055	7A2	0.060	0.213	0.090	0.470	0.269	0.107	0.093	0.063	0.208	0.108	0.114	0.149
L060	7A1	0.064	0.218	0.090	0.487	0.275	0.107	0.098	0.062	0.219	0.114	0.118	0.134
L064	7A1	0.081	0.223	0.116	0.523	0.307	0.097	0.092	0.067	0.232	0.119	0.100	0.145
L084	7A1	0.063	0.226	0.097	0.486								
L091	7A1	0.060	0.220	0.100	0.480								
L133	7A1	0.022 †	0.081 ††	0.002 ††	0.142 †	0.046 ††	0.070 †	0.039 ††	0.007 ††	0.017 ††	0.016 ††	0.027 ††	0.033 ††
L137	7A1	0.072	0.223	0.080	0.476					0.250	0.135	0.131	0.187
L140	7A1	0.076	0.220	0.120	0.510	0.295	0.123	0.083	0.075	0.240	0.120	0.111	0.121
L157	7A2									0.130 ††	0.166 ††	0.114	0.243 ††
L158	7A1									0.230	0.120	0.120	0.170
L159	7A1	0.064	0.224	0.080	0.528	0.292	0.109	0.095	0.061	0.229	0.112	0.112	0.150
L160	7A1	0.079	0.220	0.203 ††	0.472	0.291	0.108	0.095	0.054	0.230	0.125	0.129	0.164
L161	7A1	0.063	0.213	0.073	0.498	0.281	0.110	0.100	0.060	0.218	0.101	0.113	0.163

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Total N – Dumas %N											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	Dumas	0.107 †	0.280	0.147 ††	0.596 †	0.359 ††	0.155 †	0.143 ††	0.093 †	0.239	0.125	0.135	0.182
L022	Dumas	0.066	0.241	0.100	0.542								
L023	Dumas	0.095 †	0.255	0.093	0.543	0.304	0.176 †	0.158 ††	0.094 †	0.223	0.119	0.144	0.217
L028	Dumas	0.060	0.210	0.060 ††	0.460 †	0.240 ††	0.090	0.090	0.060	0.200	0.080	0.100	0.160
L030	Dumas	0.065	0.233	0.097	0.532	0.295	0.112	0.102	0.065	0.210	0.093	0.092	0.138
L036	Dumas	0.069	0.236	0.097	0.579	0.297	0.136	0.116	0.068	0.237	0.114	0.129	0.155
L042	Dumas	0.060	0.220	0.100	0.530	0.310	0.120	0.100	0.060	0.220	0.110	0.120	0.160
L045	Dumas									0.270	0.160	0.150	0.180
L046	Dumas	0.116 †	0.249	0.093	0.518								
L063	Dumas					0.290	0.110	0.096	0.630 ††				
L097	Dumas	0.066	0.236	0.082	0.548	0.291	0.128	0.106	0.074	0.231	0.127	0.131	0.183
L100	Dumas	0.087	0.250	0.109	0.507	0.298	0.116	0.105	0.061	0.229	0.128	0.126	0.174
L135	Dumas	0.450 †	0.622 ††	0.464 ††	0.912 †								
L156	Dumas	0.070	0.235	0.097	0.536	0.306	0.115	0.103	0.055	0.228	0.113	0.116	0.157

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Water Soluble Nitrate N— autocolour (7B1) mg N/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	18	13	51	321	48	26	8	7	1	4	7	9
L011	7B1	16	3	11 ††	60 †	16 ††	25	7	7	2	6 †	12	11
L026	7B1	19	11	54	386	46	28	7	6 †	0	4	10	9
L027	7B1	21	9	48	430	41	26	6	5 ††	0	5	12	10
L028	7B1	19	13	61	399	50	27	8	3 ††	1	5	12	11
L044	7B1					47	29	9	7				
L045	7B1	22	13	61	422	47	30	7	9 ††	0	4	9	7
L055	7B1	19	12	54	369	50	29	7	7	0	4	10	10
L064	7B1	18	19	57	387	52	34	10	7	2	5	12	12
L080	7B1					42	30	8	8	1	5	10	9
L133	7B1	19	13	52	272	1 ††	22	6	7				
L135	7B1	19	22	70	339	60	41 †	13 ††	57 ††	8 ††	8 ††	16	19 ††
L139	7B1	17	10	55	277	45	33	7	7	1	4	11	11
L140	7B1	22	9	45	170 †	53	33	9	8	0	4	10	13
L160	7B1	20	13	60	375	46	29	8	7	0	4	10	10
L161	7B1	21	17	60	356	38	24	7	12 ††	1	5	14	15 †

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: KCl Extractable Nitrate N — autocolour (7C2) mg N/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L011	7C2	20.0	3.0 ††	7.5 ††	75 †	16.0 ††	26.0	5.0 ††	3.7 ††	2.5 ††	6.1 ††	12.0	12.0
L013	7C2	22.0	13.0	51.0	394	48.5	30.2	8.1	7.1	0.5	4.9	11.9	11.1
L018	7C2	21.0	13.0	52.2	368	47.0	30.0	9.1	7.5	0.6	4.8	10.9	10.4
L019	7C2	20.2	11.5	48.7	128 †	52.0	33.0	8.1	8.8	0.3	4.4	12.0	11.0
L022	7C2	21.5	12.2	52.5	343	51.0	30.5	8.5	7.6	0.3	4.7	10.7	10.2
L023	7C2	20.8	11.3	51.5	399	46.2	28.9	7.5	6.2	0.2	4.3	9.9	9.6
L028	7C2	19.0	11.0	49.0	382	46.0	31.0	9.0	8.0	1.0	5.0	10.0	10.0
L030	7C2	23.6	13.7	48.6	328					0.0	4.2	10.3	10.6
L032	7C2	22.6	13.4	56.3	411	49.0	31.0	8.4	7.2	0.5	5.0	11.0	11.0
L036	7C2	20.5	11.7	50.2	369	44.7	27.4	7.5	5.9	0.1	3.4	9.7	9.0
L042	7C2	21.7	12.1	52.1	373	48.4	30.3	8.2	6.7	0.3	4.6	10.8	10.9
L044	7C2	23.0	13.2	47.4	351					0.5	3.0 †	9.2	8.5
L046	7C2	21.5	12.1	55.6	369					0.4	4.5	10.8	10.1
L055	7C2	20.0	12.0	52.0	347	47.0	28.0	7.7	6.3	0.4	4.0	9.0	9.0
L060	7C2	22.6	12.9	48.6	380	43.2	28.9	7.9	9.0	0.1	4.8	11.1	10.5
L080	7C2	19.7	13.4	56.6	370								
L084	7C2	15.8 †	12.4	49.3	309								
L097	7C2	20.0	12.0	50.0	374	47.0	29.0	7.7	6.9	0.3	4.5	9.7	9.9
L137	7C2	20.0	15.0	49.0	351					2.8 ††	2.8 ††	14.0	11.0
L159	7C2									322 ††	542 ††	703 ††	759 ††
L162	7C2					47.0	31.0	7.7	6.3	0.2	4.2	11.0	10.0

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: KCl Ext. Ammonium N — autocolour (7C2) mg N/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L011	7C2	2.4 †	22.0 ††	3.2 ††	26.0 †	7.1 ††	4.4 †	3.3 ††	2.2 ††	18.0	36.0 ††	25.0 ††	40.0 ††
L013	7C2	20.0	84.0	14.0	60.0	32.4	10.4	10.1	8.7	25.8	48.2	35.0	59.3
L018	7C2	16.5	86.9	13.6	59.2	29.7	9.3	7.8	8.4	25.5	48.4	35.1	57.4
L019	7C2	7.1 †	41.0 ††	3.9 ††	37.8 †	9.1 ††	4.5 †	4.8	3.5 ††	16.0 ††	32.0 ††	29.0	47.0 ††
L022	7C2	17.0	83.6	13.9	53.4	27.4	8.2	7.3	7.9	25.6	47.5	34.1	57.6
L023	7C2	17.6	89.6	14.9	61.1	28.2	8.7	7.3	7.3 †	23.6	47.6	33.2	62.0

L026	7C2	15.3	66.0 ††	11.4 †	49.3	29.1	9.7	8.8	8.4	29.3	46.8	34.8	55.0
L028	7C2	17.0	85.0	14.0	47.0	31.0	8.0	9.0	8.0	24.0	43.0	33.0	64.0
L030	7C2	18.8	92.6	14.8	63.7					24.6	49.3	34.8	63.6
L032	7C2	18.6	92.5	15.7	62.1	32.0	10.0	9.6	8.6	29.0	48.0	36.0	61.0
L036	7C2	17.2	86.9	14.3	61.1	30.0	10.1	8.6	8.3	27.5	48.2	37.4	59.9
L042	7C2	17.3	89.8	14.1	59.2	33.3	14.5 †	8.5	8.2	28.0	53.2	46.2 ††	80.7 ††
L044	7C2					29.0	8.3	7.6	5.3 ††	26.0	50.0	39.0	68.0
L046	7C2	16.5	97.2	13.6	64.7					25.2	49.2	35.8	60.1
L055	7C2	18.0	90.0	15.0	60.0	30.0	9.3	8.4	8.7	29.0	51.0	37.0	63.0
L060	7C2	17.8	89.0	14.8	57.3	29.3	8.3	7.5	8.6	26.7	49.7	37.1	62.9
L084	7C2	16.4	76.7	12.4	52.1								
L097	7C2	17.0	81.0	14.0	55.0	28.0	8.8	7.3	7.2 †	26.0	46.0	32.0	60.0
L133	7C2	1.4 †	22.0 ††	0.8 ††	27.0 †	1.8 ††	3.1 †	4.2 ††	6.5 ††				
L137	7C2	14.0 †	84.0	5.6 ††	50.0					31.0	50.0	45.0 ††	62.0
L140	7C2	20.0	94.0	19.0 ††	69.0	34.0	11.0	9.5	40.0 ††	31.0	54.0	42.0	66.0
L159	7C2	28.8 †	114 ††	23.3 ††	75.5					210 ††	250 ††	96 ††	359 ††
L161	7C2	16.0	84.0	15.0	57.0	30.0	10.5	9.5	8.5	21.8	41.0 †	28.7	55.3

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Total P – all methods pooled %P											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	Other	0.019	0.055	0.075	0.181	0.045	0.032	0.016	0.061	0.057	0.023	0.018	0.072
L011	Other	0.028	0.074	0.108	0.213	0.530 ††	0.301 †	0.154 ††	0.716 ††	0.062	0.024	0.017	0.080
L013	Other	0.019	0.056	0.091	0.181	0.061	0.035	0.018	0.079	0.062	0.024	0.016	0.066
L017	Other					0.640 ††	0.360 †	0.230 ††	0.820 ††	0.071	0.026	0.016	0.074
L018	Other	0.022	0.067	0.106	0.194	0.056	0.030	0.016	0.065	0.061	0.026	0.019	0.074
L019	Other	0.031	0.069	0.115	0.171	0.038	0.024	0.012	0.061	0.066	0.025	0.019	0.065
L022	Other	0.033	0.051	0.109	0.210	0.054	0.032	0.019	0.080	0.059	0.024	0.020	0.078
L023	Other	0.027	0.081	0.120	0.230					0.053	0.018 ††	0.014	0.060
L026	Other	0.029	0.073	0.110	0.220	0.056	0.033	0.020	0.081	0.064	0.026	0.020	0.062
L027	Other	0.033	0.055	0.109	0.214	0.030	0.022	0.010	0.036	0.051	0.020 ††	0.025 ††	0.066
L028	Other	0.040	0.080	0.120	0.240	0.070	0.042	0.026	0.089				
L030	Other					0.046	0.025	0.012	0.055				
L032	Other					0.055	0.026	0.011	0.082				
L035	Other									0.590 ††	0.650 ††	0.770 ††	0.690 ††
L044	Other	0.025	0.071	0.121	0.233	0.070	0.038	0.022	0.091	464 ††	160 ††	139 ††	689 ††
L046	Other	0.023	0.061	0.088	0.216					0.065	0.025	0.017	0.067
L055	Other	0.023	0.060	0.110	0.210	0.052	0.028	0.015	0.083	0.062	0.024	0.018	0.075
L060	Other	0.022	0.064	0.081	0.220	0.020 †	0.026	0.003	0.074				

L064	Other	0.018	0.052	0.080	0.173	0.046	0.034	0.015	0.058	0.064	0.030 ††	0.024 †	0.065
L084	Other	0.032	0.087	0.130	0.211								
L091	Other	0.030	0.070	0.120	0.210								
L133	Other	0.002 †	0.011 ††	0.005 ††	0.020 †								
L137	Other	0.030	0.075	0.119	0.202					0.063	0.027	0.017	0.070
L140	Other	0.026	0.064	0.110	0.170	0.077	0.045	0.024	0.100	0.056	0.026	0.019	0.064
L156	Other	0.023	0.055	0.085	0.191	0.051	0.030	0.013	0.071	0.053	0.022	0.017	0.069
L159	Other									0.063	0.024	0.016	0.069

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Colwell Extractable P - manual, autocolour pooled (9B1 & 9B2) mg P/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	6.60	57	52	256	75	27.0	21.0	31.0	82	26.0 †	23.0	119
L011	9B2	8.00	58	60	273	77	28.0	20.0	31.0	79	17.0	14.0	103
L013	9B2					86	28.5	20.0	34.0				
L018	9B2	3.99	48	51	264	63	22.1	15.7	27.7	83	17.8	17.2	111
L019	9B1	4.26	59	59	327	78	27.0	20.0	32.0	105 ††	20.0	21.0	149
L022	9B1	4.90	55	56	261	73	27.3	20.0	32.7	83	19.6	19.8	124
L023	9B1	6.97	61	60	303	74	25.5	17.9	30.0	88	20.1	19.3	131
L024	9B1					58	32.0	24.0	28.0				
L026	9B2	5.28	52	52	282	67	26.7	19.0	30.6	84	18.1	19.4	119
L027	9B1	7.00	69	63	373 †	89	33.0	27.0 †	32.0	166 ††	23.0	10.0 ††	142
L028	9B2	2.00	57	56	307	99	31.0	26.0	39.0	98	17.0	12.0 ††	161
L030	9B2	4.71	57	53	271	73	24.1	20.3	27.7	88	22.4	21.3	126
L032	9B1	5.07	54	87 ††	281	66	26.0	20.0	32.0	88	20.0	20.0	128
L036	9B2	3.16	48	50	251	65	23.7	16.9	28.5	78	18.7	17.8	114
L044	9B1	7.36	65	60	283	79	35.0	29.0 ††	35.0	84	23.0	24.0	107
L045	9B1	7.00	79 ††	70	319								
L060	9B1	8.93	65	57	312	80	31.1	23.5	35.7	87	19.4	23.2	155
L064	9B1	4.56	46	47	189 †	74	30.6	20.9	33.5	83	19.2	23.5	118
L080	9B1	2.93	43	46	211	60	24.6	19.2	28.7	75	16.5	20.2	102
L084	9B1	4.30	55	54	263								
L100	9B1	6.24	54	55	264	83	33.8	26.7 †	36.6	68 ††	17.8	17.9	89
L133	9B1	18.0 †	97 ††	64	306	84	31.7	17.8	23.1	144 ††	45 ††	64 ††	234 ††
L139	9B2					84	32.0	19.0	36.0	90	25.0	21.0	115
L158	9B1	4.90	52	51	269	67	22.0	22.0	28.0	86	19.0	19.0	125
L159	9B1	6.26	70	32 ††	134 †	58	26.8	19.1	16.7 ††				
L160	9B1	6.00	56	57	285	80	32.0	22.0	35.0	81	18.0	18.0	107
L161	9B1	11.00 †	61	60	286	71	31.0	22.0	32.0	89	20.1	17.3	138

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Olsen Extractable P - manual, autocolour pooled (9C1 & 9C2) mg P/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	3.2	25.1	25.5	127 †	31.5	14 †	11.6 †	15.8	49	11.3 †	15.3	56
L003	9C1	2.3	108 ††	110 ††	490 †					195 ††	24.3 ††	44.8 ††	248 ††
L007	9C1	1.3	22.8	25	114	29.8	10.6	8.5	12.8	43	8.5	14.0	47
L009	9C1	2.1	27.4	26.2	101	42 ††	20.7 †	16.8 ††	18.3	45	13.5 ††	18.2	55
L011	9C2	3.7	28	30	84	28	9.6	8.1	12.0	39	8.6	11.0	41
L012	9C1	3.5	28	32 †	113	28.7	10.3	8.4	14.8	47	9.3	16.1	56
L013	9C2	2	18	16	88	25	9.6	7.2	12.4	32	7.7	11.0	32
L014	9C1	16 †	50 ††	77 ††	98					40	31 ††	37.0 ††	42
L019	9C1	1.3	21.5	23.8	102	30	10	9.2	13.0	47	8.2	13.0	53
L022	9C1	1.3	22.6	22.6	99	27.2	10.8	8.2	14.6	36	7.7	13.6	43
L024	9C1	2.3	21	29	97	23	12	22 ††	15.0				
L026	9C2	1.15	18.6	19.7	91	23.8	9	8.1	11.1	33	6.4	10.4	37
L027	9C1	9 †	120 ††	99 ††	496 †		69 †	52 ††	94 ††	276 ††	62 ††	78 ††	248 ††
L030	9C2	1.05	20.5	21.2	73	25	8.5	7.8	10.4	37	7.9	11.3	40
L036	9C2	0.92	17	19.9	81	22.3	8.2	6.8	10.8	39	7.2	10.6	44
L042	9C2	1.2	18.9	21.4	87	23.3	8.7	7	9.1	37	7.6	10.8	39
L044	9C1	2.2	15.9	15.5	73	25	10.1	10	12	42	11 †	16.0	55
L045	9C1	0.3	20	23.2	79	26.4	11.3	8.7	13.2	42	9.2	12.2	46
L046	9C1	1.39	18.7	23.3	82								
L056	9C1					26	10	9.4	13	35	8	12.0	36
L060	9C1	2.3	24.1	24	86	31.6	12.7	9.9	15.7	38.4	7.5	13.4	49
L063	9C1									42	11 †	19.0	52
L135	9C1	2.3	18.5	21.7	79	24.2	10.3	8.5	11.0	45	15.8 ††	19.1	45
L137	9C1	1.8	24	24	112					46	8.8	13.0	55
L139	9C2	1.3	24	20	85	24	9.2	9.5	10	34	7.3	10.0	33
L156	9C2	1.1	22	22	93	26	7.1	6.2	9.2	39	5.9	9.7	45
L159	9C1									57 ††	16 ††	28.0 ††	62
L160	9C1	2	21	23	99	26	11	8.6	13	37	7	10.9	38
L162	9C2									38	7.5	13.0	41

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Bray-1 Extractable P — manual, autocolour pooled (9E1 & 9E2) mg P/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		ASS 111	**ASS 112**	**ASS 113**	**ASS 114**	**ASS 31**	**ASS 32**	**ASS 33**	**ASS 34**	**ASS 51**	**ASS 52**	**ASS 53**	**ASS 54**
L014	9E1	0	1.10 ††	0.2	1.60					3.90	0.51	1.20 †	5.30
L019	9E1	0	21.1	1.63	37.6	14.0	9.3	10.0	16.0 ††	36.0	3.3	11.0	48.0
L023	9E2	0.13	29.4	3.18	64.8	23.6	19.9	22.2	0.36	60	5.99	18.2	102
L024	9E1					21.0	21.0	22.0	0.7	7.9	1.7	3.1	9.6
L026	9E2	0.27	24.4	1.53	58.8	17.4	14.0	15.4	1.4	48.8	6.7	16.5	94.9
L027	9E1	0.01	0.6 ††	0.1	1.0	0.9 ††	0.0 †	0.0 ††	0.0	0.1	0.0	0.0 †	0.0
L029	9E1	0.25	13.2	3.0	20.1					40.7	2.6	12.6	10.4
L045	9E2					11.0	18.0	20.0	10.0 ††	42.0	5.0	24.0	76.0
L046	9E2									61.2	7.6	18.3	111.9
L055	9E1	0.48	24.7	2.17	33.4	19.2	18.0	19.4	0.3				
L056	9E1	0.10	26.0	2.40	52	20.0	17.0	19.0	13.0 ††	53.0	6.0	16.0	90
L060	9E1	0.15	29.4	4.03	75	24.4	16.3	16.8	17.3 ††	50.9	7.5	17.3	84
L064	9E1	0.48	27.8	2.28	48	21.0	17.7	19.4	1.1	40.9	6.3	18.3	56
L156	9E2	0.02	36.0	8.30 ††	120	32.0	22.0	21.0	1.8	143 ††	16.0 ††	46 ††	254 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Phosphorus buffer index (*Colwell*) (9I2a + 9I2b + 9I2c) L/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	817	249	264	426	169	58	64	191	76	61	31	99
L011	9I2c	978	209	245	374	151	46	52	187	60	66	17	77
L019	9I2c	1.01 †	0.22 ††	0.25 ††	3.69 †	163	43	52	215	74	72	29	94
L022	9I2c	975	234	264	416	166	50.5	58.2	149	70	68	24.5	93
L023	9I2c	1580 †	287	286	577	188	58.4	64	124	77	79	27.4	117
L026	9I2c	949	226	252	412	158	48.2	53.5	144	64	64	23.1	83
L028	9I2b									62	61	22	97
L044	9I2c	623	228	229	373	153	43	52	85	63	70	35	94
L060	9I2c	998	264	272	472	190	54	62	378	62	59	24	86
L064	9I2c	822	238	262	375	166	51.7	58.6	188	65	63	34.3	77

Lab. Code #	Method Codes	Soil sample identification and values for NOT ASSESSABLE 2008-09: Phosphorus buffer index (*Olsen*) (9I3a + 9I3b + 9I3c) L/kg NOT ASSESSABLE											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		ASS 111	ASS 112	ASS 113	ASS 114	ASS 31	ASS 32	ASS 33	ASS 34	ASS 51	ASS 52	ASS 53	ASS 54
L028	9I3c	1325	277	266	457	176	49	56	209				
L036	9I3c	217	176	183	132	163	47	55	118 ††	81	68	27	105
L137	9I3a	961	224	251	418					84	66	30	106
L139	9I3c					159	52	59	213	73	58	24	81
L162	9I3b									81	67	32	99

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Phosphate Extractable S (10B3) mg S/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	144	113	49	78	33	14	16	21	19	11	9.7	43
L013	10B3	15.0 †	10.0 ††	4.5 ††	7.2	26.9	12	14	20.5	16.9	10.0	8.3	38.5
L026	10B3	145	114	52	83	33	14	14.8	21.8	23.3	11.2	10.3	47.5
L028	10B3	139	114	49	82	34	13	14	18	24	12	11	53
L084	10B3	122	107 †	52	64								
L139	10B3	41 †	62 ††	33	41	18 ††	11	10	31 ††	17	6.8	8.2	28
L162	10B3					31	13	13	21	20	9.7	8.6	43

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: KCl_{40} Extractable S (Blair *et al.*) mg S/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	KCl_{40}					23	13.0	14.0	19.0	15.0	8.4	9.6	37
L011	KCl_{40}	25	64	31	58	18	10.0	10.0	16.0	11.0	7.7	7.2	35
L013	KCl_{40}					23	13.0	13.5	19.0				
L018	KCl_{40}	32	78	36	64	20	11.9	10.9	17.6	15.8	8.0	9.7	39
L019	KCl_{40}	63 †	73	37	44	23	10.0	11.0	22.0	18.0	7.6	8.2	33

L022	KCl_{40}	31	76	38	65	19	11.3	10.6	16.6	13.6	7.4	8.6	41
L023	KCl_{40}	37	92 ††	50 ††	91	27	15.6	16.7	21.2	17.5	7.7	10.1	46
L026	KCl_{40}	29	71	33	60	18	10.3	9.6	14.8	14.6	6.8	8.6	36
L030	KCl_{40}					20	11.5	12.6	16.7				
L036	KCl_{40}	28	76	35	65	21	12.5	12.5	19.1				
L064	KCl_{40}	31	53 ††	36	46	19	12.4	12.4	16.2	16.7	7.8	13.5	41
L133	KCl_{40}	32	72	67 ††	78	41 ††	17.0 †	16.0	20.0	35.0 ††	15.0 ††	13.0	47

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: DTPA Extractable Fe (12A1) mg Fe/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	10.2 †	41	39	64	62	80	357 ††	4	92	180	118	543
L004	12A1	9.0	43	51	57	54	103 †	214 ††	4	51	94	93	447
L005	12A1					152 ††	100 †	149 †	15 ††				
L007	12A1	6.6	12	13 †	46	8 ††	14	45	3	76	144	3.0 ††	255
L009	12A1	11.8 †	46	70	67	77	57	72	4	37	67	37	136
L011	12A1	14.0 †	610 ††	5 ††	82	71	147 †	248 ††	5	60	122	84	392
L013	12A1	4.8	24	47	58	54	35	34	4	70	137	66	167
L014	12A1	9.6	41	36	81					81	163	110	343
L017	12A1					97 ††	231 †	97	9 ††	203 ††	415 ††	156 ††	290
L018	12A1	4.1	27	70	64	62	38	50	4	72	127	69	180
L019	12A1	3.7	23	56	60	64	61	70	4	70	134	72	245
L022	12A1	6.9	42	80	63	66	41	46	4	71	123	59	118
L023	12A1	4.6	24	36	61	54	49	59	6	72	129	73	321
L024	12A1	10.0 †	55 ††	61	73	51	47	48	308 ††	102 †	203	84	425
L026	12A1	8.9	26	50	46	53	45	79	3	63	116	69	267
L027	12A1	5.5	31	101 ††	76	88 ††	62	104	7 ††	127 ††	192	164 ††	107
L028	12A1	3.1	24	44	60	64	56	78	4	70	131	74	343
L030	12A1	3.1	20	45	52	48	32	46	3	58	103	58	210
L035	12A1	3.9	18	38	46					45	88	33	55
L036	12A1	3.7	23	56	59	58	34	42	3	75	135	68	166
L041	12A1	5.3	28	47	62	54	32	34	6	56	96	54	87
L044	12A1	5.2	36	48	78	54	29	27	4	98	184	132 ††	90
L055	12A1	6.2	35	44	83	63	41	36	8 ††	64	104	60	57
L060	12A1	5.0	27	38	66	63	57	78	6				
L064	12A1	4.0	27	57	58	69	45	62	4	68	124	92	407
L080	12A1	4.3	31	60	62	51	63	123	4	67	141	87	498
L084	12A1	4.1	24	52	58								
L120	12A1	23.0 †	44	81	78					67	112	54	81

L133	12A1	6.6	32	30	86	72	87 †	149 †	5	81	170	82	286
L135	12A1	2.1	28	70	70	55	69	124	4	55	103	85	209
L137	12A1	9.9	38	55	81					97	186	89	136
L139	12A1	14.0 †	19	41	28 †	47	38	31	6	52	85	47	41
L158	12A1	1.3	22	51	55	53	32	29	3	56	133	67	136
L159	12A1					62	37	63	3	87	181	88	520
L160	12A1					59	36	39	3	61	108	54	142
L161	12A1	4.9	34	38	66	65	71	134	5	64	105	73	339
L162	12A1					55	33	36	3	59	107	74	337

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: DTPA Extractable Cu (12A1) mg Cu/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.40 †	3.87	3.23	4.68	3.00	1.17	0.49	1.57	1.79	2.19	1.03	1.45
L004	12A1	0.03	2.70	2.50	3.30	2.60	1.00	0.49	1.20	1.20	1.60	0.90	0.90
L005	12A1					4.93 ††	1.72 †	0.69 †	2.16 ††				
L007	12A1	0.08	2.57	2.76	2.94	0.62 ††	0.70	0.68 †	1.12	1.60	2.10	1.10	1.10
L009	12A1	0.86 †	4.74	3.35	4.71	4.60 ††	2.48 †	1.55 ††	2.42 ††	0.12 ††	0.13 ††	0.09 ††	0.09 ††
L011	12A1	0.18 †	4.40	2.70	3.90	2.60	0.97	0.42	1.20	1.20	1.60	0.87	0.88
L013	12A1	0.08	2.70	2.50	3.30	2.74	1.20	0.46	1.32	1.44	1.86	1.00	0.92
L014	12A1	0.10	4.70	3.60	5.70 †					1.60	2.00	0.94	1.00
L018	12A1	0.06	3.11	3.50	4.15	3.09	1.00	0.37	1.47	1.54	1.88	1.04	0.90
L019	12A1	0.02	2.71	2.74	3.65	2.70	1.10	0.38	1.20	1.30	1.70	0.87	0.87
L022	12A1	0.08	3.88	2.95	4.02	2.70	1.01	0.41	1.26	1.45	1.96	1.05	0.86
L023	12A1	0.05	3.14	2.96	4.03	2.78	1.06	0.37	1.53	1.63	1.92	0.97	0.94
L024	12A1	0.04	4.10	3.90	4.60	2.60	1.10	0.51	1.40	2.18 ††	2.72 ††	1.42	1.84 ††
L026	12A1	0.01	2.42	2.60	3.03	2.47	0.90	0.36	1.18	1.36	1.69	0.99	0.84
L027	12A1	0.05	2.56	3.61	4.49	3.62 ††	1.46 †	0.60	1.86	2.54 ††	2.75 ††	1.90 ††	1.41
L028	12A1	0.05	3.00	3.00	4.10	2.90	1.10	0.40	1.40	1.50	1.80	0.90	1.10
L030	12A1	0.05	2.65	2.47	3.31	2.42	0.87	0.32	1.15	1.29	1.56	0.89	0.81
L035	12A1	0.06	2.77	2.51	3.54					1.18	1.40	0.66	0.70
L036	12A1	0.03	2.80	2.75	3.67	2.82	1.00	0.38	1.27	1.55	1.93	1.02	0.92
L041	12A1	0.23 †	3.05	3.18	3.66	2.77	1.18	0.65	1.63	1.42	1.73	1.22	1.16
L044	12A1	0.06	3.13	2.79	4.16	2.30	0.92	0.33	0.90	1.90	1.60	1.80 ††	1.10
L055	12A1	0.05	3.53	2.99	4.18	2.72	1.11	0.44	1.53	1.49	1.67	1.17	0.91
L060	12A1	0.05	3.55	2.97	4.12	3.01	1.15	0.45	1.59				
L064	12A1	0.39 †	2.13	2.09	3.43	2.91	1.12	0.51	1.46	1.68	2.15	1.32	1.40
L080	12A1	0.23 †	2.97	2.95	3.74	2.53	1.01	0.50	1.29	1.50	1.83	1.15	1.17
L084	12A1	0.04	2.78	2.70	3.65								

L120	12A1	1.40	†	4.60		3.50		6.00	†									1.80		2.00		1.10		0.77
L133	12A1	0.10		3.80		3.10		4.30		2.90		0.80		0.68	†	1.70		2.00		2.50		1.50	†	1.50
L135	12A1	0.03		2.83		2.98		4.35		2.53		0.96		0.42		1.25		1.50		2.30		1.30		0.99
L137	12A1	0.10		4.30		3.60		5.20										1.70		1.90		1.10		1.20
L139	12A1	0.19	†	1.61		1.67	††	2.38	†	1.30	††	0.71		0.19	†	0.51	††	1.10		1.10	†	0.50	††	0.52
L158	12A1	0.08		2.70		2.80		3.60		2.76		1.06		0.45		1.38		1.60		2.10		0.87		1.10
L159	12A1									2.80		0.93		0.34		1.17		1.63		2.13		1.28		1.17
L160	12A1									2.90		1.09		0.45		1.44		1.40		1.72		1.00		0.84
L161	12A1	0.13		3.50		3.20		4.30		2.68		1.32		0.40		1.44		1.67		1.98		1.12		1.28
L162	12A1									2.70		0.95		0.37		1.20		1.40		1.70		0.98		0.95

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: DTPA Extractable Mn (12A1) mg Mn/kg																					
		November 2008 (Round 208)								*March 2009 (Round 408)*								*May 2009 (Round 608)*					
		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	2.1	†	150		28.5		73		480	††	210		5.6		21.0		59		226	††	92		153	
L004	12A1	0.7		138		17.0		71		257		163		6.7		17.0		53		144		85		130	
L005	12A1									524	††	242	†	7.0		55	††								
L007	12A1									124	††	137		5.2		21.6		63		175		101		167	
L009	12A1	1.9	†	122		19.6		69		215		144		5.0		19.7		16	††	41	††	23	††	36	††
L011	12A1	1.9	†	147		17.0		76		245		157		5.3		18.0		49		138		77		129	
L013	12A1	0.4		110		20.2		59		271		163		6.2		17.8		54		145		83		134	
L014	12A1	0.9		153		44.0	†	91										61		182		98		157	
L017	12A1									918	††	534	†	7.8	††	37.9	††	111	††	622	††	189	††	640	††
L018	12A1	0.6		136		26.1		80		298		171		5.1		20.0		61		158		91		139	
L019	12A1	0.5		123		21.6		60		223		152		6.1		17.0		54		154		88		142	
L022	12A1	0.9		130		22.0		66		242		143		4.5		18.1		51		134		74		123	
L023	12A1	0.6		130		32.3		78		263		160		5.0		18.0		55		143		81		135	
L024	12A1	0.7		176	††	44.0	†	94		296		196		53	††	26	††								
L026	12A1	0.3		113		18.7		60		250		156		4.5		16.5		53		149		85		132	
L027	12A1	0.0	†	116		25.7		74		306		187		5.8		28.1	††	94	††	363	††	211	††	329	††
L028	12A1	0.5		131		36.3		73		300		167		4.7		21.5		58		147		81		145	
L030	12A1	0.6		123		18.8		65		259		159		4.4		16.3		50		141		72		130	
L035	12A1	0.9		124		21.2		60										75	††	218	†	93		169	
L036	12A1	0.4		126		21.8		72		289		165		4.6		17.7		54		145		82		139	
L041	12A1	0.7		132		17.5		69		318		172		5.2		18.7		55		126		75		126	
L044	12A1	0.6		84	††	36.4		46	†	408		229	†	5.1		18.0		85	††	191		166	††	116	
L055	12A1	0.5		146		31.1		80		261		172		5.5		27.2	††	55		173		90		163	
L060	12A1	0.7		129		22.1		77		299		171		5.7		18.9									
L064	12A1	3.0	†	139		26.9		83		265		162		4.6		17.6		61		153		90		139	

L080	12A1	0.9	124	18.4	74	318	177	5.6	18.1	59	165	91	179
L084	12A1	0.6	124	17.1	70								
L120	12A1	3.3 †	160 †	56.0 ††	96					57	201 †	86	148
L133	12A1	0.8	180 ††	29.0	101 †	389	307 †	9.5 ††	32.0 ††	54	164	90	147
L135	12A1	0.3	130	26.6	85	303	181	5.0	18.6	58	209 †	109 †	180
L137	12A1	0.9	165 ††	34.0	96					58	197	97	174
L139	12A1	0.5	45 ††	16.0	21 †	204	148	3.4	16.0	18 ††	68 ††	36 ††	47 ††
L159	12A1					324	186	4.5	17.0	60	216 †	106 †	181
L160	12A1					331	195	5.3	20.5	55	157	84	135
L161	12A1	2.4 †	129	41.0 †	79	320	187	3.1	18.0	55	149	80	142
L162	12A1					297	177	4.9	17.0	52	145	86	139

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: DTPA Extractable Zn (12A1) mg Zn/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.34 †	4.33	2.63 †	15.2	2.21	1.04 †	0.60 †	0.64	4.98	2.10	2.72	2.66
L004	12A1	0.10	2.50	1.40 †	13.0	1.60	0.73	0.33	0.40	3.70	1.40 ††	2.20	1.70
L005	12A1					4.24 ††	1.29 †	0.63 †	2.24 ††				
L007	12A1	0.06	3.14	2.15	16.1	0.64 ††	0.61 †	0.46	0.38	4.60	2.00	2.70	2.10
L009	12A1	0.32 †	3.96	2.22	15.9	2.31	1.05 †	0.54	0.67	1.05 ††	0.47 ††	0.59 ††	0.48 ††
L011	12A1	0.15	4.10	1.50	15.0	1.70	0.88	0.49	0.47	4.20	1.80	2.60	2.10
L013	12A1	0.22 †	3.50	1.70	13.0	1.76	0.82	0.44	0.70 †	4.08	1.78	2.44	1.86
L014	12A1	0.10	4.00	2.00	9.9 †					4.90	2.10	2.70	2.20
L018	12A1	0.07	3.50	2.56	16.4	2.11	0.80	0.38	0.52	4.81	1.95	2.62	1.98
L019	12A1	0.08	2.95	1.77	13.5	1.70	0.75	0.39	0.39	4.30	1.90	2.50	1.90
L022	12A1	0.09	3.32	2.10	14.8	1.86	0.83	0.37	0.52	4.18	1.80	2.45	1.86
L023	12A1	0.04	3.54	1.77	17.4	1.38	0.54 †	0.10 ††	0.22 ††	4.60	1.92	2.48	2.09
L024	12A1	0.07	3.80	2.10	16.0	2.00	0.85	0.48	0.50	5.82 ††	2.53 ††	3.04	3.57 ††
L026	12A1	0.07	2.81	2.06	12.2	1.55	0.71	0.32	0.39	4.22	1.77	2.67	1.94
L027	12A1	0.01	3.02	2.46	14.9	2.24	1.21 †	0.77 ††	0.97 ††	5.85 ††	2.59 ††	3.70 ††	3.09 ††
L028	12A1	0.10	3.30	1.90	15.9	2.00	1.20 †	0.40	0.50	4.40	1.80	2.40	2.20
L030	12A1	0.05	2.76	2.00	12.9	1.69	0.67	0.28	0.40	4.17	1.71	2.17	1.84
L035	12A1	0.07	2.49	1.23 ††	12.5					3.54 ††	1.71	1.66 ††	1.83
L036	12A1	0.04	3.41	1.93	16.0	1.93	0.81	0.34	0.45	4.51	1.89	2.51	2.02
L041	12A1	0.14	3.24	2.65 †	14.2	1.99	0.89	0.42	0.63	4.22	1.89	2.63	1.95
L044	12A1	0.03	3.39	1.86	16.0	1.50	0.70	0.35	0.43	4.30	2.00	2.00 ††	2.70
L055	12A1	0.06	3.50	2.13	15.9	1.79	0.81	0.35	0.59	4.17	1.55	2.45	1.92
L060	12A1	0.06	3.90	1.90	15.6	2.17	0.88	0.38	0.52				
L064	12A1	0.21 †	3.03	1.81	11.9	1.88	0.79	0.41	0.47	4.69	2.12	2.78	2.51

L080	12A1	0.15	3.35	2.15	14.2	1.87	0.85	0.42	0.48	4.61	1.91	2.71	2.26
L084	12A1	0.07	3.09	1.92	13.8								
L120	12A1	1.10 †	4.10	2.80 ††	18.0					4.80	2.10	2.60	2.00
L133	12A1	0.17	6.10 ††	2.10	13.0	2.30	1.20 †	1.10 ††	0.53	4.40	2.20	3.30 ††	2.80 †
L135	12A1	0.05	3.32	1.99	16.3	1.92	0.90	0.46	0.47	4.30	1.90	2.80	2.20
L137	12A1	0.14	4.60 †	2.60 †	18.0					4.40	2.30 †	2.60	2.70
L139	12A1	0.38 †	1.50 ††	1.60	8.5 †	1.20	0.67	0.27	0.67	3.30 ††	1.00 ††	1.60 ††	1.10 ††
L158	12A1	0.10	3.10	2.40	15.0	1.95	0.79	0.36	0.50	3.70	1.00 ††	1.30 ††	1.00 ††
L159	12A1					2.11	0.89	0.36	0.49	4.91	2.06	2.90	2.56
L160	12A1					2.15	0.87	0.40	0.57	4.45	1.83	2.42	1.80
L161	12A1	0.06	3.50	2.00	16.0	2.02	1.01	0.48	0.44	4.40	1.84	2.55	2.27
L162	12A1					1.90	0.86	0.33	0.45	4.40	1.80	2.60	2.10

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Hot CaC_{l2} Extractable B - ICPAES (12C2) mg B/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.80	2.60	1.30	1.60	2.00 ††	1.40	0.97 ††	7.20	1.80 ††	1.10 ††	1.10	1.20
L009	12C2	0.44	0.98	1.54	1.10	1.05	0.99	0.40	4.62	0.81 †	0.62	4.58 ††	1.05
L011	12C2	0.84	2.50	1.50	2.20	0.94	0.74	0.44	5.70	1.20	0.43	0.84	0.80
L013	12C2	0.75	2.10	3.00	1.90	1.40	1.05	0.40	8.70	1.20	0.70	1.20	1.10
L018	12C2	0.23	1.31	0.48	0.91	0.66	0.60	0.22	3.73	0.91	0.44	0.79	0.81
L019	12C2	0.45	1.62	0.72	1.16	1.10	0.99	0.42	5.60	1.20	0.60	1.00	1.00
L022	12C2	0.60	1.30	2.11	1.62	1.11	0.90	0.38	6.82	1.05	0.66	1.30	1.01
L023	12C2	0.59	1.53	2.42	1.59	1.30	0.66	0.34	6.86	1.11	0.66	0.85	0.73
L026	12C2	0.66	1.73	2.16	1.74	1.13	0.87	0.32	6.78	1.30	0.70	1.10	1.05
L030	12C2	0.62	1.62	2.14	1.68					1.16	0.65	1.29	0.88
L036	12C2	0.43	1.70	1.38	1.31	0.98	0.76	0.21	6.57	1.23	0.64	0.89	1.00
L041	12C2									0.97	0.60	1.22	1.44
L055	12C2	0.62	0.97	0.77	0.56	1.36	1.12	0.39	10.40 ††	1.01	0.62	1.08	0.78
L064	12C2	0.72	2.10	1.50	2.48	0.96	1.07	0.52	3.36 ††	1.23	0.88	1.18	1.28
L080	12C2	0.24	1.69	1.82	1.80								
L120	12C2	0.29	1.20	1.80	1.40					0.67 ††	0.37	1.20	0.56
L133	12C2	0.94	2.10	2.00	1.90	1.60	1.30	0.90 ††	6.60	1.80 ††	0.88	1.10	1.40
L135	12C2	0.64	1.43	1.85	1.59	1.05	0.59	0.30	5.79	1.20	0.55	0.53	0.87
L139	12C2	0.41	0.56	2.41	1.37	0.74	0.30	0.10 ††	6.50	0.92	0.40	0.57	0.50
L143	12C2	0.82	2.14	1.88	2.13	1.30	0.83	0.37	5.30	1.30	0.76	0.98	1.03
L159	12C2									0.44 ††	0.24 ††	0.61	0.36
L162	12C2					1.10	0.73	0.29	6.20	1.20	0.56	1.00	1.00

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Hot CaC_{l2} Extractable B - manual colour + ICPAES pooled (12C1 and 12C2) mg B/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.80	2.60	1.30	1.60	2.00 ††	1.40	0.97 ††	7.20	1.80 ††	1.10 ††	1.10	1.20
L009	12C2	0.44	0.98	1.54	1.10	1.05	0.99	0.40	4.62	0.81	0.62	4.58 ††	1.05
L011	12C2	0.84	2.50	1.50	2.20	0.94	0.74	0.44	5.70	1.20	0.43	0.84	0.80
L013	12C2	0.75	2.10	3.00	1.90	1.40	1.05	0.40	8.70	1.20	0.70	1.20	1.10
L018	12C2	0.23	1.31	0.48	0.91	0.66	0.60	0.22	3.73	0.91	0.44	0.79	0.81
L019	12C2	0.45	1.62	0.72	1.16	1.10	0.99	0.42	5.60	1.20	0.60	1.00	1.00
L022	12C2	0.60	1.30	2.11	1.62	1.11	0.90	0.38	6.82	1.05	0.66	1.30	1.01
L023	12C2	0.59	1.53	2.42	1.59	1.30	0.66	0.34	6.86	1.11	0.66	0.85	0.73
L026	12C2	0.66	1.73	2.16	1.74	1.13	0.87	0.32	6.78	1.30	0.70	1.10	1.05
L030	12C2	0.62	1.62	2.14	1.68					1.16	0.65	1.29	0.88
L036	12C2	0.43	1.70	1.38	1.31	0.98	0.76	0.21	6.57	1.23	0.64	0.89	1.00
L041	12C2	0.33	1.46	1.93	1.95	2.93 ††	1.74 †	1.02 ††	9.82 †	0.97	0.60	1.22	1.44
L055	12C2	0.62	0.97	0.77	0.56	1.36	1.12	0.39	10.40 ††	1.01	0.62	1.08	0.78
L064	12C2	0.72	2.10	1.50	2.48	0.96	1.07	0.52	3.36 †	1.23	0.88	1.18	1.28
L080	12C2	0.24	1.69	1.82	1.80	1.10	0.68	0.38	4.71	1.06	0.49	0.93	1.38
L084	12C1	0.72	2.17	2.35	2.37								
L120	12C2	0.29	1.20	1.80	1.40					0.67 †	0.37	1.20	0.56
L133	12C2	0.94	2.10	2.00	1.90	1.60	1.30	0.90 ††	6.60	1.80 ††	0.88	1.10	1.40
L135	12C2	0.64	1.43	1.85	1.59	1.05	0.59	0.30	5.79	1.20	0.55	0.53	0.87
L137	12C1	0.51	1.70	1.20	1.60					1.90 ††	0.89	2.50 ††	3.30 ††
L139	12C2	0.41	0.56	2.41	1.37	0.74	0.30	0.10 ††	6.50	0.92	0.40	0.57	0.50
L143	12C2	0.82	2.14	1.88	2.13	1.30	0.83	0.37	5.30	1.30	0.76	0.98	1.03
L159	12C2									0.44 ††	0.24 ††	0.61	0.36
L162	12C2					1.10	0.73	0.29	6.20	1.20	0.56	1.00	1.00

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Ca — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					22.5	5.95	4.25	25.7				
L007	15A1	2.4	7.60	46.2	29.0 †	26.5 ††	8.2 †	4.8	41.8 ††				
L011	15A1	2.94	7.33	42.9	22.4	23	5.64	4.23	24	15.6	5.07	2.16	3.36

L014	15A1	4.19	†	9.62	††	25.2	††	24.2						4.96	††	4	†	1.67	††	2.66	
L018	15A1	2.76		7.26		42.0		23.1		21.4		5.55		4		24.4		14.7		4.7		2.17		3.4	
L022	15A1	2.93		7.30		35.1		19.5		22		5.34		4.25		17.9		15		4.99		2.06		3.71	
L023	15A1	2.85		7.38		38.5		22.6		22.2		5.36		4.16		22.8		14.8		4.77		2.13		3.48	
L024	15A1	6.17	†	11.9	††	54.8	††	20.6		40.3	††	10.1	†	8.1	††	48.7	††	13.6		3.34	††	1.75	††	2.74	
L027	15A1	2.7		6.80		40.6		21.4		22.9		5.4		4.2		21.8		13.4		4.5		2		3	
L028	15A1	2.87		7.13		41.6		22.4		21.5		5.88		4.1		24.1		16		5.1		2.3		3.7	
L029	15A1	2.81		6.99		69.6	††	35.2	†																
L036	15A1	2.93		7.21		38.9		21.7		22		5.32		4.01		23		15.08		4.81		2.14		3.63	
L044	15A1	3.17		6.99		43.4		25.9		22.6		6.65	†	4.43		27.4		16.8		5.24		2.3		3.64	
L045	15A1	3.38	†	8.30	†	41.2		23.5		21		5.32		4.34		8.14	††	14.58		5.02		2.21		3.63	
L055	15A1									22.6		5.19		3.99		17.6		15		4.73		2.1		3.27	
L064	15A1	3.41	†	8.77	††	40.2		24.6		21.9		6.33	†	4.40		22.1		16.7		5.85	††	3.08	††	4.22	
L080	15A1	2.98		6.57		43.4		20.7		21.6		5.48		3.9		18.8		15.8		4.85		2.23		3.24	
L133	15A1	2.60		5.90	††	41		23		23		5.5		4.2		34	††	22	††	5.7	†	2.1		4.2	
L159	15A1									13.4	††	3.37	†	2.52	††	14.7	†	8.49	††	2.86	††	1.33	††	2.12	††
L160	15A1	2.73		7.12		22.5	††	43.7	†	24.3		5.9		4.47		25.9		14.9		4.82		2.05		3.45	
L162	15A1									22.2		5.43		4.13		23.5		15.7		5		2.24		3.75	

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Mg — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					8.41	1.1 †	1.28 ††	7.51				
L007	15A1	4.81	1.87	18.1 ††	4.04 †	9.14	0.84	0.78	10.3 ††				
L011	15A1	6.36 †	2.56 ††	35.8 †	3.21	9.87	0.95	1.08 †	6.95	4.18	3.04	0.5	0.67
L014	15A1	4.67	2.21	18.6 ††	2.87					4.1	3.54 ††	0.82 ††	0.88 ††
L018	15A1	4.86	2.03	32	2.79	8.9	0.783	0.95	7.86	4.26	3.05	0.51	0.55
L022	15A1	4.94	2.01	30	2.62	8.98	0.82	0.94	5.78	4.19	3.11	0.5	0.62
L023	15A1	5.26	2.17	31.4	2.83	9.04	0.80	0.96	6.56	4.3	3.06	0.51	0.60
L024	15A1					1.45 ††	0.11 †	0.13 ††	1.30 ††	0.52 ††	0.36 ††	0.07 ††	0.08 ††
L027	15A1	4.9	2	31.4	2.7	9.4	0.8	0.9	7.3	4.1	2.9	0.5	0.5
L028	15A1	4.87	1.98	31.3	2.65	8.57	0.84	0.92	6.72	4.5	3.1	0.51	0.58
L029	15A1	4.31	1.42 ††	0.49 ††	2.38								
L036	15A1	5.04	2.01	31.1	2.61	8.7	0.76	0.90	6.23	4.24	3	0.49	0.59
L044	15A1	6.4 †	2.15	35.5 †	3.39	9.58	0.86	1.01	7.8	4.39	3.21	0.47	0.55
L045	15A1	5.01	2.11	21.1 ††	2.84	8.92	0.83	0.99	4.79	4.49	3.25	0.54	0.64
L055	15A1					8.82	0.79	0.91	6.13	4.3	2.95	0.49	0.55
L064	15A1	4.46	2.51 ††	15.2 ††	3.31	9.34	0.98 †	0.91	7.13	4.35	3.21	0.78 ††	0.76
L080	15A1	5.05	2.27	32.8	2.98	8.01	1.32 †	1.49 ††	5.28	3.96	3.07	0.99 ††	0.96 ††

L133	15A1	4.3		1.70		29.0		2.3		7.9	†	0.66	†	0.80		10.0	†	5.20	††	3.20		0.45	†	0.65	
L159	15A1									5.21	††	0.48	†	0.58	††	4.16		2.36	††	1.75	††	0.33	††	0.38	††
L160	15A1	5.11		2.10		32.1		2.8		9.1		0.84		0.99		6.70		4.27		3.05		0.46		0.54	
L162	15A1									8.94		0.78		0.91		6.63		4.47		3.15		0.52		0.62	

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Na — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					0.25	0.01	0.16	10.8 †				
L007	15A1	0.19 †	0.07	5.08	0.61 †	0.58 ††	0.43 †	0.54 ††	4.87 ††				
L011	15A1	0.52	0.16	6.45	0.14	0.19	0.02	0.12	11.6 †	0.15	0.18	0.09	0.14
L014	15A1	0.87 †	0.71 ††	0.95 ††	1.53 †					0.11	0.09	0.10	0.11
L018	15A1	0.57	0.16	6.41	0.21	0.30	0.05	0.17	8.91	0.14	0.22	0.04	0.12
L022	15A1	0.45	0.14	6.11	0.12	0.23	0.03	0.15	8.51	0.08	0.17	0.03	0.14
L023	15A1	0.48	0.13	6.67	0.09	0.23	0.01	0.14	8.88	0.07	0.15	0.01	0.10
L024	15A1	0.05 †	0.02 †	0.62 ††	0.02	0.07 †	0.05	0.06 ††	0.71 ††	0.05	0.05 ††	0.04	0.05 †
L027	15A1	0.50	0.10	5.90	0.10	0.30	0.02	0.20	9.00	0.06	0.10	0.02	0.10
L028	15A1	0.51	0.16	6.17	0.13	0.22	0.04	0.15	9.06	0.09	0.18	0.04	0.14
L036	15A1	0.46	0.15	6.48	0.15	0.26	0.03	0.14	8.06	0.09	0.16	0.03	0.13
L044	15A1	0.37	0.12	5.02	0.08	0.17	0.00	0.09 †	6.95 †	0.00	0.03 ††	0.12 †	0.21 ††
L045	15A1	1.01 †	0.29 †	6.80	0.24	0.24	0.02	0.16	8.69	0.07	0.16	0.02	0.12
L055	15A1					0.24	0.04	0.15	9.11	0.06	0.14	0.02	0.10
L064	15A1	0.42	0.34 ††	3.60 †	0.38 †	0.29	0.09	0.17	4.80 ††	0.20 ††	0.28 ††	0.18 ††	0.30 ††
L080	15A1	0.49	0.20	5.58	0.13	0.29	0.10 †	0.22 ††	6.52 †	0.12	0.17	0.07	0.14
L133	15A1	0.45	0.15	5.00	0.12	0.14	0.06	0.14	3.30 ††	0.06	0.15	0.04	0.09
L159	15A1					0.45 ††	0.09	0.22 †	11.4 †	0.28 ††	0.45 ††	0.21 ††	0.27 ††
L160	15A1	0.58	0.08	0.01 ††	7.50 †	0.24	0.03	0.16	9.80	0.06	0.14	0.03	0.10
L162	15A1					0.21	0.00	0.14	8.86	0.05	0.13	0.01	0.11

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable K — 1M NH_4Cl extract (15A1) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					2.32 ††	1.85 †	0.43 ††	1.97 ††				
L007	15A1	0.57	1.57 †	2.04	1.68	1.82	1.27	0.21	1.32				

L011	15A1	0.50	1.33	2.15	1.68	1.74	1.24	0.18	1.25	0.71 ††	0.64	0.61	1.63
L014	15A1	0.56	1.02	1.00 ††	1.47					0.59	0.53	0.53	1.24
L018	15A1	0.47	1.29	2.09	1.70	1.76	1.24	0.18	1.30	0.53	0.49	0.47	1.40
L022	15A1	0.42	1.08	2.01	1.35 †	1.70	1.19	0.16	1.22	0.52	0.50	0.48	1.57
L023	15A1	0.37	1.26	2.04	1.63	1.74	1.20	0.07 ††	1.12	0.46	0.41	0.41	1.46
L024	15A1	0.49	0.24 ††	0.20 ††	0.21 †	1.36 ††	0.98 †	0.10	1.14	0.41	0.39	0.43	1.06
L027	15A1	0.40	1.20	2.10	1.60	1.80	1.20	0.20	1.40	0.50	0.40	0.40	1.30
L028	15A1	0.49	1.31	1.91	1.52	1.67	1.34	0.23	1.35	0.56	0.52	0.50	1.50
L029	15A1	0.46	0.94	1.26 ††	1.10 †					0.70 ††	0.63	0.59	1.57
L036	15A1	0.42	1.18	2.07	1.49	1.71	1.15	0.16	1.28	0.52	0.47	0.44	1.46
L044	15A1	0.50	1.21	1.96	1.66	1.54	1.07	0.19	1.14	0.54	0.45	0.51	1.58
L045	15A1	0.51	1.35	2.00	1.64	1.68	1.23	0.16	1.21	0.53	0.49	0.45	1.48
L055	15A1					1.70	1.19	0.15	1.20	0.50	0.44	0.42	1.34
L064	15A1	0.52	1.09	2.01	1.51	1.56	1.16	0.18	1.12	0.45	0.40	0.51	1.40
L080	15A1	0.43	1.21	1.82	1.68	1.51 †	1.07	0.17	1.14	0.42	0.40	0.39	1.36
L133	15A1	0.41	1.30	4.30 ††	2.70 †					0.17 ††	0.10 ††	0.12 ††	0.45 ††
L159	15A1					2.20 ††	1.52 †	0.36 ††	1.73 ††	0.62	0.66	0.59	1.61
L160	15A1	0.47	1.27	2.17	1.63	1.88	1.32	0.20	1.45	0.54	0.51	0.48	1.41
L162	15A1					1.74	1.22	0.18	1.26	0.55	0.51	0.50	1.60

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Ca — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	3.9 †	8.5	39.1	23.7	24.7	6.9 †	5.1 †	24.5	17.9	5.7	2.7	4.1
L003	15D3	5.0 †	12.2 ††	54.6 ††	40.4 †					17.0	3.4 ††	2.4	4.2
L004	15D3	2.8	7.1	47.8	23.4	24.2	6.0	4.2	41.5 †	15.2	5.0	2.3	3.7
L007	15D3									12.8	4.7	2.1	3.7
L009	15D3	3.6 †	7.8	41.2	23.8	22.0	6.0	4.6	31.3	15.2	5.1	2.5	3.7
L011	15D3	3.0	7.4	39.5	22.8	22.6	5.8	4.2	27.8	15.5	4.9	2.2	3.8
L012	15D3	2.7	7.0	40.7	23.8	21.2	5.2	3.6	19.0	14.5	4.5	2.1	3.4
L013	15D3	2.9	6.5	44.0	23.0	22.7	5.6	3.9	27.8	15.5	5.1	2.3	3.7
L017	15D3	2.8	7.0	39.0	22.0	22.2	5.8	5.0	22.4	15.4	4.8	2.2	3.7
L019	15D3	2.8	7.6	29.6 †	25.7	29.0 ††	9.4 †	6.6 ††	9.8	17.4	5.8	2.5	4.1
L024	15D3	1.8 †	4.6 ††	45.6	18.7 †	17.6 ††	5.2	3.8	39.1 †	12.7	3.6 ††	1.9	2.9
L026	15D3	2.7	6.6	36.4	21.7	20.6	5.3	3.8	18.2	14.5	4.5	2.1	3.4
L030	15D3	2.6	6.3	35.9	20.4	20.6	5.0	3.6	16.9	14.9	4.8	2.1	3.5
L035	15D3	2.8	7.3	62.1 ††	16.7 †	22.7	5.3	4.1	62.9 ††	16.2	5.2	2.0	3.5
L041	15D3	3.2	8.2	40.6	25.4	22.4	5.4	3.4	17.6	17.7	5.4	2.3	3.5
L042	15D3	2.8	6.8	37.9	23.3	22.3	5.3	3.6	18.7	8.2 ††	5.2	2.3	3.6

L046	15D3	2.8	7.5	40.9	22.2					17.0	5.1	2.4	3.7
L055	15D3	2.9	7.6	42.2	25.0								
L060	15D3	2.7	6.0	35.7	19.6	22.3	5.3	3.8	20.2				
L084	15D3	2.7	6.3	35.3	18.0 †								
L120	15D3	2.9	7.5	52.0 †	26.0					14.5	4.5	1.9	2.9
L135	15D3	3.3 †	7.6	35.4	22.3	17.8 †	5.1	3.6	12.7	16.0	5.4	2.7	4.0
L137	15D3	3.0	7.2	43.3	21.7					13.2	4.1	2.2	2.6 ††
L139	15D3	2.6	6.8	40.4	22.7	19.8	5.1	4.1	51.9 ††	17.4	5.2	2.7	3.9
L156	15D3	3.5 †	8.7	66.1 ††	29.6 †	25.0	6.0	4.8	49.0 ††	18.9	5.3	2.5	4.4
L158	15D3	2.9	7.1	39.9	23.3					12.5	4.5	1.8	3.1
L161	15D3	4.4 †	8.7	38.0	25.1	23.3	5.5	3.9	21.6	15.3	5.3	2.5	3.9

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Mg — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	5.00	1.95	12.0 ††	2.78	9.32	0.81	1.01	6.64	0.80 ††	3.19	0.52	0.53
L003	15D3	1.60 †	0.31 ††	25.9	2.09 †					2.00 ††	4.60 ††	0.20 ††	0.40 †
L004	15D3	4.79	1.90	30.7	2.38	9.37	0.82	0.93	7.90	4.49	3.26	0.53	0.62
L007	15D3									3.79	2.84	0.47	0.56
L009	15D3	4.94	2.12	15.0 ††	2.76	7.10	0.95	1.09 ††	6.63	4.17	3.05	0.57	0.65
L011	15D3	5.02	2.01	28.5	2.62	8.86	0.90	0.98	6.54	4.14	2.98	0.54	0.70
L012	15D3	5.66 †	2.30	18.9 †	3.16 †	8.66	0.76	0.86	6.06	4.08	2.87	0.48	0.56
L013	15D3	5.00	1.90	25.0	2.70	8.46	0.81	0.90	7.12	4.44	3.10	0.51	0.58
L017	15D3	4.94	2.02	31.0	2.69	9.01	0.99	1.19 ††	6.73	4.49	3.07	0.53	0.64
L019	15D3	4.87	2.01	26.4	2.83	10.7 ††	1.23 †	1.41 ††	5.62	4.39	3.25	0.53	0.59
L024	15D3					1.08 ††	0.10 †	0.12 ††	1.06 ††	0.48 ††	0.35 ††	0.07 ††	0.09 ††
L026	15D3	4.80	1.92	26.7	2.68	8.24	0.74	0.87	5.49	3.97	2.84	0.47	0.54
L030	15D3	4.23 †	1.70	28.2	2.34 †	8.30	0.74	0.84	5.53	4.11	2.97	0.48	0.58
L035	15D3	5.14	2.07	35.5	1.91 †	8.10	0.70	0.80	10.1	4.11	3.06	0.39	0.48
L041	15D3	4.86	2.12	27.7	2.74	8.42	0.82	0.90	5.12	4.14	2.85	0.53	0.60
L042	15D3	5.13	1.99	29.9	3.08 †	7.40	0.80	0.89	4.61	4.64	3.02	0.56	0.64
L046	15D3	5.52	2.19	37.7	2.97					4.17	2.92	0.49	0.55
L055	15D3	4.79	1.92	31.8	2.76								
L060	15D3	5.00	1.73	31.1	2.59	9.25	0.80	0.89	6.46				
L084	15D3	4.34 †	1.76	28.4	2.33 †								
L120	15D3	5.30	2.10	35.0	3.20 †					3.92	2.80	0.46	0.49
L135	15D3	5.18	2.14	27.7	2.67	7.06	0.76	0.80	4.47	4.10	3.10	0.63	0.68

L137	15D3	4.91	2.04	32.2	2.67					4.47	3.03	0.47	0.65
L139	15D3	4.63	1.93	31.0	2.73	8.12	0.70	0.91	8.91	4.99	3.12	0.59	0.62
L156	15D3	4.90	2.14	35.4	2.91	8.70	0.75	0.93	9.60	4.48	2.86	0.49	0.58
L158	15D3	5.10	2.01	31.3	2.83					5.84 ††	3.15	0.50	0.56
L161	15D3	4.39	1.86	28.0	2.69	8.42	0.91	0.94	6.00	4.27	3.02	0.54	0.65

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Na — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.43	0.12	5.94	0.11					0.39 ††	0.48 ††	0.26 ††	1.41 ††
L004	15D3	0.49	0.25 ††	6.20	0.20	0.39	0.11	0.29	8.58	0.16 †	0.11	0.04	0.10
L007	15D3									0.11	0.20	0.06	0.17
L009	15D3	0.67 †	0.29 ††	7.09 ††	0.27 †	0.33	0.13	0.46 ††	10.10	0.24 ††	0.30 ††	0.18 ††	0.24 ††
L011	15D3	0.37	0.10	5.66	0.12	0.25	0.12	0.17	8.56	0.11	0.17	0.08	0.16
L012	15D3	0.52	0.15	7.47 ††	0.15	0.32	0.07	0.21	8.07	0.05	0.14	0.04	0.12
L013	15D3	0.48	0.14	5.70	0.15	0.23	0.03	0.16	8.48	0.07	0.15	0.02	0.11
L017	15D3	0.47	0.19	6.25	0.12	0.20	0.07	0.17	8.61	0.03	0.12	0.00	0.09
L019	15D3	0.43	0.14	5.91	0.09	0.22	0.03	0.37 ††	8.90	0.03	0.14	0.03	0.11
L024	15D3	0.05 †	0.02 ††	0.64 ††	0.01 †	0.02 ††	0.00	0.02	0.81 ††	0.06	0.06	0.05	0.06
L026	15D3	0.44	0.13	5.74	0.11	0.20	0.01	0.13	7.86	0.06	0.14	0.02	0.11
L030	15D3	0.47	0.15	6.40	0.13	0.25	0.04	0.16	8.87	0.09	0.17	0.04	0.14
L035	15D3	0.42	0.12	6.07	0.08	0.31	0.16	0.21	9.61	0.17 †	0.24 ††	0.10	0.20
L041	15D3	0.93 †	0.72 ††	5.75	0.72 †	0.31	0.13	0.23	7.94	0.14	0.21	0.10	0.18
L042	15D3	0.45	0.13	5.70	0.17	0.19	0.01	0.12	7.55	0.06	0.15	0.02	0.11
L046	15D3	0.51	0.19	6.93 ††	0.22 †					0.09	0.17	0.03	0.14
L055	15D3	0.48	0.14	6.42	0.12								
L060	15D3	0.45	0.13	5.92	0.10	0.23	0.01	0.14	9.32				
L084	15D3	0.43	0.15	6.09	0.13								
L120	15D3	0.52	0.15	6.10	0.14					0.06	0.14	0.02	0.11
L135	15D3	0.51	0.16	5.70	0.14	0.44	0.25	0.35 ††	7.07	0.08	0.19	0.07	0.16
L137	15D3	0.45	0.15	3.72 ††	0.08					0.09	0.15	0.04	0.12
L139	15D3	0.49	0.19	3.69 ††	0.17	0.36	0.05	0.18	3.72 ††	0.09	0.17	0.05	0.15
L156	15D3	0.55	0.29 ††	6.12	0.21	0.26	0.12	0.34 †	6.60	0.02	0.14	0.03	0.09
L158	15D3	0.46	0.16	5.92	0.12					0.04	0.12	0.01	0.08
L161	15D3	0.41	0.13	6.02	0.18	0.21	0.02	0.14	8.56	0.07	0.14	0.04	0.13

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable K — 1M NH_4OAc extract (15D3) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.48	1.37	2.13	1.72	1.50	1.10	0.17	1.18	0.59	0.57 ††	0.53	0.30 ††
L003	15D3	0.35	1.06	1.53	1.32 †					0.44	0.41	0.39	1.48
L004	15D3	0.63 †	1.46	2.31	1.72	1.82	1.14	0.36 ††	1.45	0.51	0.42	0.36	1.24
L007	15D3									0.49	0.47	0.45	1.55
L009	15D3	0.48	1.20	1.98	1.54	1.60	1.15	0.19	1.27	0.53	0.48	0.45	1.25
L011	15D3	0.49	1.24	2.18	1.51	1.70	1.28	0.23	1.27	0.57	0.50	0.49	1.48
L012	15D3	0.54	1.43	2.11	1.80 †	1.36	0.96	0.11	1.02	0.47	0.40	0.38	1.23
L013	15D3	0.49	1.20	1.80	1.60	1.59	1.21	0.21	1.23	0.51	0.51	0.48	1.51
L017	15D3	0.42	1.20	1.89	1.54	1.79	1.62 †	0.29 ††	1.52	0.52	0.47	0.48	1.60
L019	15D3	0.39	1.16	1.44	1.50	1.90	1.90 †	0.31 ††	1.60	0.55	0.54	0.51	1.55
L024	15D3	0.41	1.17	1.52	0.83 †	1.30	1.01	0.14	1.03	0.47	0.45	0.42	0.65 ††
L026	15D3	0.43	1.16	1.77	1.56	1.54	1.13	0.16	1.07	0.50	0.46	0.46	1.43
L030	15D3	0.43	1.16	1.83	1.52	1.58	1.12	0.16	1.14	0.51	0.49	0.46	0.15 ††
L035	15D3	0.50	1.34	2.05	1.15 †	1.84	1.20	1.75 ††	1.46	0.65 ††	0.54	0.50	1.49
L041	15D3	0.41	1.11	1.79	1.52	1.56	1.09	0.18	1.12	0.50	0.46	0.44	1.40
L042	15D3	0.44	1.14	1.75	1.53	1.51	0.87	0.16	0.93	0.49	0.46	0.45	1.40
L046	15D3	0.57	1.29	2.16	1.66					0.55	0.45	0.40	1.29
L055	15D3	0.49	1.33	2.21	1.82 †								
L060	15D3	0.44	1.19	1.94	1.56	1.60	1.20	0.17	1.23				
L084	15D3	0.45	1.20	1.99	1.65								
L120	15D3	0.51	1.40	2.00	2.00 †					0.54	0.49	0.46	1.46
L135	15D3	0.47	1.27	1.81	1.57	1.43	1.06	0.17	1.04	0.54	0.52	0.49	1.56
L137	15D3	0.46	1.23	1.92	1.54					0.51	0.47	0.42	1.43
L139	15D3	0.45	1.26	2.24	1.89 †	1.86	1.10	0.20	1.75	0.64 ††	0.47	0.50	1.47
L156	15D3	0.44	1.31	2.26	1.51	1.70	0.85	0.14	0.90	0.41 ††	0.34 ††	0.33 ††	1.32
L158	15D3	0.47	1.26	1.87	1.63					0.54	0.52	0.51	1.56
L161	15D3	0.46	1.24	1.82	1.64	1.68	1.20	0.17	1.29	0.51	0.50	0.44	1.49

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Exchangeable Al — 1M KCl (15G1) cmol+/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	15G1									0.040 ††	0.040	0.080	0.120 †
L004	15G1	0.059	0.061	0.015	0.023	0.012	0.006	0.050	0.005 †	0.011	0.013	0.010	0.021

L009	15G1	0.017	0.031	0.000	0.003	0.002	0.001	0.050	0.000	0.003	0.007	0.039	0.034
L011	15G1	0.307 †	0.315 ††	0.121 ††	0.226 †	0.257 ††	0.303 †	0.623 ††	0.119 ††	0.171 ††	0.236 ††	0.242 ††	0.293 ††
L019	15G1	0.101	0.221	0.043 †	0.043	0.040	0.020	0.460 ††	0.030 ††	0.038 †	0.083 ††	0.180 ††	0.140 †
L022	15G1	0.100	0.130	0.010	0.010	0.009	0.010	0.190	0.005 †	0.010	0.015	0.030	0.010
L026	15G1	0.176	0.228	0.026 †	0.028	0.022	0.025	0.229	0.001	0.001	0.015	0.020	0.021
L028	15G1	0.100	0.190	0.010	0.010	0.010	0.010	0.040	0.010 ††	0.020	0.020	0.020	0.030
L029	15G1	0.141	0.169	0.085 ††	0.141 †					0.037 †	0.052 †	0.435 ††	0.225 ††
L030	15G1	0.105	0.127	0.000	0.006	0.017	0.014	0.258	0.002	0.00001	0.003	0.023	0.015
L036	15G1	0.155	0.160	0.012	0.016	0.003	0.002	0.193	0.001	0.007	0.005	0.033	0.026
L045	15G1	0.010	0.010										
L055	15G1	0.050	0.110	0.003	0.021					0.008	0.015	0.074	0.100
L060	15G1	0.094	0.114	0.000	0.005	0.002	0.002	0.190	0.000				
L064	15G1	0.047	0.091	0.001	0.002	0.002	0.003	0.174	0.001	0.004	0.046 †	0.059	0.034
L133	15G1	0.050	0.077	0.004	0.007	0.001	0.001	0.092	0.001	0.005	0.009	0.124 ††	0.097
L137	15G1	0.094	0.151	0.075 ††	0.038					0.019	0.078 ††	0.039	0.078
L161	15G1	0.096	0.115	0.001	0.001	0.018	0.016	0.215	0.014 ††	0.004	0.013	0.036	0.002
L162	15G1					0.001	0.001	0.209	0.001				

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Boron — Mehlich3 (18F1) mg B/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					0.640	0.320	0.140	7.05	0.630	0.140	0.280	0.400
L019	18F1	0.004	0.005	0.004 ††	0.004	0.310	0.280	0.050	1.20	13.0 ††	16.0 ††	18.0 ††	16.0 ††
L026	18F1	0.203	0.672	2.03	1.57	1.390 ††	0.987	0.720 ††	4.70	1.14	1.09	0.785	1.04
L028	18F1	0.560	0.800	3.08 ††	1.92	0.490	0.120	0.120	9.36	1.08	0.390	0.580	0.690
L036	18F1	0.315	608 ††	2.10	1.55	0.228	0.025	0.025	6.96	2.15	1.26	1.69	1.58
L097	18F1	0.196	0.358	2.00	1.30	0.342	0.001	0.001	6.10	0.510	0.274	0.140	0.325

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Calcium — Mehlich3 (18F1 mg Ca/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					4545	1231	882	22523	2921	1032	480	798
L019	18F1	553	1390	12449	4804	4664	1141	739	10580	3216	1087	501	865

L026	18F1	570	1448	13100	5435	3196	1055	763	6939	3107	1006	471	772
L028	18F1	600	1488	11760	4711	4562	1201	837	19020	3185	988	495	762
L036	18F1	546	1326	10490	4450	4218	1212	908	18472	3564	939	473	880
L097	18F1	495	1183	9518	4486	3846	991	711	5351	2752	886	382 ††	638
L143	18F1	545	1200	9416	3748	2947	895	788	11223	1957	781	465	787
L156	18F1	574	1537	12703	5058	5004	1332	998	14767	2921	971	466	663
L157	18F1	101 †	214 ††	300 ††	44 †					2116	800	407 ††	649

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Copper — Mehlich3 (18F1) mg Cu/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					3.47	1.83	0.86	1.37	1.93	2.40	0.94	1.30
L019	18F1	0.200	3.73	3.56	5.87	3.40	1.40	0.40	1.00	2.10	2.30	1.00	1.40
L026	18F1	0.095	3.33	3.50	5.49	2.97	1.64	0.65	1.12	2.34	2.42	1.16	1.50
L028	18F1	0.460	4.26	4.57	6.33	3.43	1.71	0.58	1.79	2.80	2.70	1.30	1.70
L036	18F1	0.164	3.30	3.04	4.85	3.46	2.10	0.73	1.51	3.19	2.40	1.44	1.90
L091	18F1	40.0 †	29.0 ††	34.0 ††	14.0 †					16.0 ††	14.0 ††	8.10 ††	14.0 ††
L097	18F1	0.121	3.10	2.60	5.40	2.90	1.50	0.66	1.30	2.00	2.30	0.97	1.30
L143	18F1	1.800 †	4.10	4.70	5.70	3.80	2.90	2.50 ††	3.20	3.60	3.80 ††	2.70 ††	3.30 ††
L156	18F1	0.245	4.51	4.50	6.56	4.00	2.20	0.87	2.00	3.10	2.60	1.40	1.70
L157	18F1									2.75	2.53	1.29	1.84

ab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Al — Mehlich3 (18F1) mgAl/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					944	650	931	14	574	447	307	741
L019	18F1	1419	1009	759	1067	1318	472	659	14	590	385	266	826
L026	18F1	1432	983	807	11441 †	771	481	708	69.4	673	449	316	840
L028	18F1	1343	995	757	1085	960	640	902	22	726	490	362	881
L036	18F1	1461	951	704	1091	1398	908	1183	33.4	1129	665	415	1183
L097	18F1	1355	945	600	1265	794	505	794	37	537	409	275	673
L143	18F1	1106	694 ††	460	627	500	443	730	43	479	383	311	816
L156	18F1	1806 †	1358 ††	890	1332	1152	808	1093	2.7	814	595	362	971

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Iron — Mehlich3 (18F1) mg Fe/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					215	165	158	15.8	135	271	129	156
L019	18F1	38.6	66.6	189	108	219	91	71	17.0	145	226	104	178
L026	18F1	44.7	56.7	157	92.6	159	121	106	57.4	165	273	146	211
L028	18F1	37.0	66.0	174	106	179	139	103	30.0	184	313	164	221
L036	18F1	40.9	59.7	153	82	288	217	164	30.6	300	439	187	307 ††
L097	18F1	35.0	54.0	110	98	132	103	89	22.0	135	261	121	157
L143	18F1	34.0	46.0	121	68	97	96	96	19.0	133	237	145	175
L156	18F1	53.4	90.2	187	109	208	200	154	32.0	231	364	221	276
L157	18F1									187	161	168	156

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Sulphur — Mehlich3 (18F1) mg S/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	66.8	100	50.5	76.1	34.0	15.0	14.0	36.0	24.0	10.0	12.0	49.0
L026	18F1	55.4	78.7	40.3	62.7	23.9	14.7	14.4	30.5	25.1	9.8	12.1	45.0
L028	18F1	65.0	99.0	48.0	72.0	29.0	18.0 †	18.0 ††	52.0	29.0	11.0 †	16.0	52.0
L036	18F1	56.3	83.4	39.9	64.8	18.4	11.0 †	14.1	47.3	22.1	6.4 ††	9.8	39.7
L097	18F1	62.0	85.0	38.0	67.0	24.0	14.0	14.0	34.0	22.0	9.5	11.0	40.0
L143	18F1	50.0	80.0	44.0	60.0	21.0	14.0	17.0 ††	41.0	20.0	9.9	13.0	48.0
L156	18F1					98 ††	36 †	30 ††	237 ††	88 ††	30.0 ††	24.0 ††	59.0

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Magnesium — Mehlich3 (18F1) mg Mg/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					1074	108	124	1594	467	367	61	73
L019	18F1	595	242	4015	372	1119	100	111	1042	554	406	71	82

L026	18F1	595	252	3980	366	752	97.5	114	802	501	366	63	74
L028	18F1	623	249	4324	316	1012	101	119	1623	539	367	66	73
L036	18F1	577	216	3870	293	908	102	124	1475	532	354	63	79
L091	18F1									1105 ††	549 ††	120 ††	90 ††
L097	18F1	577	206	3928	302	1009	87	106	939	469	342	54	62
L143	18F1	564	209	2473 †	283	735	78 †	112	1234	372	269 †	61	76
L156	18F1	671	244	1435 ††	342								
L157	18F1	13 †	16 ††	27 ††	20 †					292 ††	248 †	58.7	71

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Manganese — Mehlich3 (18F1) mg Mn/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					421	314	7.6	61	58	295	136	225
L019	18F1	4.57	180	89.6	90	478	241	3.4 ††	56	64	272	120	236
L026	18F1	4.19	159	59.3	81	322	239	6.86	56.6	59.5	255	133	217
L028	18F1	5.00	181	119	91	432	301	8	93	64	300	153	253
L036	18F1	4.60	159	73	73	457	377	8.49	83	76	346	185	364 †
L091	18F1									167 ††	455	196	452 ††
L097	18F1	3.20	140	75	84	348	233	6.1	80	60	256	111	178
L143	18F1	4.60	137	54	63	132	115	7.2	64	44	202	138	221
L156	18F1	4.97	177	66	83	352	314	7.7	82	61	298	178	252
L157	18F1	136 †	143	170 ††	172 †					57	327	173	317

Lab. Code #	Method Codes	Soil sample identification and values for NOT ASSESSABLE 2008-09: Extractable Phosphorus – colour finish — Mehlich3 (18F2) mg P/kg NOT ASSESSABLE											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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	0.40	27.2	27.4	120					74	7.8	16	123
L157	18F2									7.2	86	20.3	63

Method code of Rayment and Lyons (2011)

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Phosphorus - ICP — Mehlich3 (18F1) mg P/kg											
		November 2008 (Round 208)				March 2009 (Round 408)				May 2009 (Round 608)			
		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					34.7	29.1	28	13.7	64	8.6	35.0	110
L019	18F1	2.40	45.5	27.2	127	64 ††	30	23	41	85	14	36	130
L026	18F1	4.84	48.0	36.9	132	32	24.8	22	28.3	81.9	11	37.7	128
L028	18F1	1.50	42.0	29.0	113	36	31	28	35	89	12	47 ††	149
L036	18F1	0.27	38.4	28.2	117	39.3	30.5	28	37.5	136 ††	11.8	30.2	172
L097	18F1	0.66	41.0	23.0	142	32	25	25	34	70	9.6	34	107
L133	18F1	0.71	2.3 ††	13.0	9.8 †								
L143	18F1	2.40	27.0	16.0	59 †	20 ††	22	24	33	63	7.5	35	116
L156	18F1					32	27	24	3.6 ††	71	8.8	32	104

Method code of Rayment and Lyons (2011)

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Potassium — Mehlich3 (18F1) mg K/kg											
		November 2008 (Round 208)				March 2009 (Round 408)				May 2009 (Round 608)			
		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					607.8	469.7	65.8	490.6	181.1	193.2	190.2	551.4
L019	18F1	171	462	679	622	6802 ††	477	63	439	211	200	201	641
L026	18F1	183	494	681	666	487	375	55.7	348	206	190	194	573
L028	18F1	179	479	674	612	619	477	66	554	204	188	205	583
L036	18F1	218 †	461	764 ††	624	648	494	71.6	629	208	189	192	602
L097	18F1	155	415	535 ††	569	556	425	58	417	178	172	163	495
L143	18F1	174	447	684	603	402	332	73	507	162	148 ††	184	535
L156	18F1	172	476	677	609	6.2 ††	4.7 †	62	473	200	195	186	563
L157	18F1	15.9 †	4.9 ††	5.5 ††	5 †					41.9 ††	65.6 ††	45.9 ††	373 ††

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Sodium — Mehlich3 (18F1) mg Na/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					48.6	6.06	27.8	1034	12.9	32.1	62 ††	21.9
L019	18F1	116	30.1	1409	32.7	62	50 †	30	1937	14	36	4.9	28
L026	18F1	115	33.1	1331	29.6	41.8	4.29	1331 ††	1438	15.7	34.8	8.2	26.1
L028	18F1	120	38.0	1467	32	52	5	35	2162	19	37	5	27
L036	18F1	141	40.4	1460	42.1	47.6	4.61	30.7	1888	23.3	41.3	14	37.9
L097	18F1	94	27	1250	23	45	3.1	28	1870	13	31	5.6	23
L143	18F1	131	45	1342	46	49	14 †	40	1489	17	32	27 †	47
L156	18F1	103	24.8	1341	16.3								

Lab. Code #	Method Codes	Soil sample identification and values for 2008-09: Extractable Zinc — Mehlich3 (18F1) mg Zn/kg											
		November 2008 (Round 208)				*March 2009 (Round 408)*				*May 2009 (Round 608)*			
		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					2.53	1.33	0.39	1.17	5.71	2.44	3.15	2.96
L019	18F1	0.004	3.88	3.05	22.2 †	0.80 †	0.50 †	0.15	0.12 †	5.20	1.80	2.60	2.20
L026	18F1	0.16	3.52	2.65	17.4	2.31	1.35	0.64	1.22	5.62	2.31	3.04	2.80
L028	18F1	0.19	3.64	3.46	20.7	3.13	1.29	0.46	1.81	6.30	2.40	3.40	3.00
L036	18F1	0.01	3.42	2.39	18.0	2.11	1.07	0.12	1.04	2.84	0.003 ††	0.003 ††	0.003 ††
L091	18F1	53.0 †	82.0 ††	95.0 ††	27.0 †					64.0 ††	27.0 ††	13.0 ††	18.0 ††
L097	18F1	0.17	3.30	2.30	18.0	2.20	1.10	0.45	1.30	5.00	2.00	2.50	2.60
L143	18F1	0.36	3.40	3.00	17.0	2.00	1.20	0.72	1.70	5.10	2.30	3.30	3.20
L156	18F1	1.07	3.97	8.57 ††	18.1	4.50 ††	1.80	0.62	3.60 ††	6.70	2.80	4.00	3.00
L157	18F1									3.93	3.25	2.66	2.13

END