G EOTECHNIQUE PTY LTD Laboratory Test Request / Chain of Custody Record

l sample (sin	< 5	Disturbed soil sample (glass jar)	Disturbed soil	DSG		stic bottle	Water sample, glass bottle Water sample, plastic bottle	WP G
amnle (sm	DSB	cil sample (glass iar)	I bediet wheel o				20000	Legend:
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ille Form	000		Sample type	Sam		Sampling details	Sa	
R	Project Manager:		02 8594 0499	FAX:		MALICOS	02 8594 0400 MS ANGELA MAMALICOS	PH: ATTN:
						EET SW 2015	ONIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015	
AN					ES	ENTAL SERVICE	SGS ENVIRONMENTAL SERVICES	TO:
	By:	email: info@geotech.com.au	NSW 2751	PENRITH NSW 2751			PENRITH NSW 2750	PENRITH N

Lemko Place PENRITH N	Lemko Place PENRITH NSW 2750			PENRI	P O Box 880 PENRITH NSW 2751	0x 880 2751	Fax: (02) 4722 6161 email: info@geotech.com.au	61 ech.com.au		Z			Job No:		3
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Legend: WG	t: Water sample, glass bottle	glass bottle			use 1	Jndisturbe	Undisturbed soil sample (glass jar)	DSP		Disturbed :	Disturbed soil sample	Disturbed soil sample (small plastic	Disturbed soil sample (small plastic bag)		Disturbed soil sample (small plastic bag) * Purge & Trap ® mole H⁺/tonne
Ş D	Motoroppio	Water sample plastic bottle			DSG [Disturbed s	Disturbed soil sample (glass jar)	<	_	est requir	Test required	est required	est required		Test required # Geotechnique Screen

UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015 02 8594 0400 N: MS ANGELA MAMALICOS Sampling details Location Depth (m) Depth (m) Depth (m) Date TP-24 0.0 - 0.1 27/10/2011 DSP TP-25 0.0 - 0.1 27/10/2011 DSP TP-26 0.5-0.6 0.5-0.6 0.5-0.6 0.5-0.6 1.5-1.6 PRelinquished by Name Water sample, glass bottle VSG	고 등 구 P	Lemko Place PENRITH NSW 2750 TO: SGS ENVIRONMI	ENTAL SERVI	CES	PENRI	P O Box 880 PENRITH NSW 2751	P O Box 880 NSW 2751	rei: (02) 4722 6760 Fax: (02) 4722 6161 email: info@geotech.com.au Sampling	61 ech.com.au Sampling	EAST O	2			Job No:	Page Job No: 12576/1	1	Page
Sample Soli	TO: S	SGS ENVIRONMENTAL SERVICES	ENTAL SERVI	CES					Sar	npling	By:	npling By: AN	By: AN	By: AN	By: AN Job No:	By: AN Job No:	By: AN Job No:
Part	- بر ⊂	MADDOX STR	EET						-					Project:		Project: Marsden Park Precinct	
TN: MS ANGELA MAMALICOS Sampling details Sample							יי פבטי חוני	5		Project Ma	Project Manager:	Project Manager: ER			ER Location:	ER Location:	ER
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Lemko Place PENRITH N TO: SG	Lemko Place PENRITH NSW 2750 TO: SGS ENVIRONMENTAL SERVICES UNIT 16	IENTAL SERVI	ŒS	PENRI	P O Box 880 PENRITH NSW 2751	P O Box 880 NSW 2751	Fax: (02) 4722 6161 email: info@geotech.com.au Sampling	61 sch.com.au Sampling By:	mi		By: AN	AN	AN Job No:	AN Job No:
	UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015	REET USW 2015										Project:	Project: Marsden Park F	Project: Marsden Park Precinct
PH:	02 8594 0400				FAX:	02 8594 0499	w .	Project Manager:	nager		ER	ER	ER Location:	ER
A IN:	Sampling d	Sampling details	67		Sample type	type				<u>ק</u>	Danilla		المراجعة الم	
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\$		2.0-2.1			DSP		. <	<						
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83		1.0-1.1			DSP		<	<						
48		2.0-2.1			DSP	-	<	<				Receive	Received by	Received by
7%			Kelin	Relinquished by			,			Nama	Nomo			
	Name			Signature			Date	Salsa	5	No.	Name of the second		Name Company	3100
Legend WG	Water sample, glass bottle	lass bottle			USG	Undisturbed	Undisturbed soil sample (glass jar)	DSP	Distu	bed :	bed soil sample (Disturbed soil sample (small plastic bag)		bed soil sample (small plastic bag)
ND D					DSG	Disturbed so	Disturbed soil sample (glass jar)	<	Test required	quir	quired	quired		quired # Geotechnique Screen

93 1.5-1.6 93 1.5-1.6 96 TP-35 0.0-0.1 1.0-1.1 96 2.0-2.1 Name	TP-35	TP-35	TP-35	TP-35	TP-35	TP-35				17-04	TD 34	20-21		TP-33			TP-32 0.0 - 0.1		Location Depth (m)	Sampling details	PH: 02 8594 0400 ATTN: MS ANGELA MAMALICOS	UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015	TO: SGS ENVIRONMENTAL SERVICES	Lemko Place PENRITH NSW 2750
				Relir			.1 2//10/2/011	-	0	.1 27710/2011	+	*	1	.1 27/10/2011	S	\perp	.1 27/10/2011		m) Date	etails			RVICES	
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					USP	USP	DUT.	250	200		DSP	DSP	DSP	DSP	DSP	DSP	DSP		Soil Water	Sample type	FAX: 02			P O Box 880 PENRITH NSW 2751
	Undisturbed soil sample (alass iar)		Date		*	*					~	~	<	*	<	~	~	EC	4		4 0499			Tel: (02) 4722 2700 Fax: (02) 4722 616 email: info@geote
DSP [Y.									<	<	<	<	<	<	<	PH .			Project Manager:		Sampling By:	h.com.au
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-	oil sample (<					<		<		Chloride	200	ille roo	FR		AN	
	Disturbed soil sample (small plastic baq)	10000	Signature	Neceived by	Donoison				<					<		<		ESP	unca sy.	Possilts required by:	Location:	Project:	Job No:	
	* Purge & Trap	- 1	TO TO	by																	Northwest Grow	Marsden Park Precinct	125/6/1	Page
	[®] mole H⁺/tonne	211018	Dale	Data														53			Northwest Growth Centre, Marsden Park	recinct		8 o f
	/tonne	100				VES C	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	SAMPLE			en Park	L.V		9

WP	WG							200	000	4P			Γ	ATTN:			Ģ	TENK!	Lemko Place
Water sample, plastic bottle	: Water sample, glass bottle		Name							TP-36		Location		MS ANGELA MAMALICOS	000000000000000000000000000000000000000	33 MADDOX STREET ALEXANDRIA NSW 2015	UNIT 16	TO: SOS ENVIDONI	Place
lastic bottle	lass bottle							2.0-2.1	1.0-1.1	0.0 - 0.1		Depth (m)	Sampling details	AMALICOS		REET NSW 2015	MENTAL OFTEN		
				Relin						28/10/2011		Date	S				CES	2	
			Signature	Relinquished by								Time						PENE	
DSG	USG		Ф					DSP	DSP	DSP		Soil	Samp	FAX:				PENRITH NSW 2751	PO
Disturbed :	Undisturbe											Water	Sample type	02 8594 0499				N 2751	P O Box 880
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)		Date					<	✓ <	~	EC			199				email: info@geotech.com.au	Tel: (02) 4722 2700 Fax: (02) 4722 6161
<	DSP							<	<	<	모			Project Manager:			sampling by:	ch.com.au	61
Test required	Disturbed	Security	Name			1				<	Sulphate	Z e		lanager:			J by:		
ired	Disturbed soil sample (small plastic bag)									<	Sulphate Chloride	Kesuits required by:	ouldo no	5	}		Ž	2	
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	astic bag)	The same	Signature	Received by								by:		Location:		Project:	JOB NO.		
# Geotechnique Screen	* Purge & Trap	4	è	by										Northwest Growth Centre, Marsden Park		Marsden Park Precinct	1/0/0/1	rage	
ique Scree	гар	311												srowth Cer)	rk Precinc		9)
ň	[@] mole H ⁺ /tonne	10/01	Date											ntre, Mars		*		O	
	d⁺/tonne	2123						YES	YES	YES	SAMPLE			den Park				9	•





CLIENT DETAILS . LABORATORY DETAILS _

Emged Rizkalla **Huong Crawford** Contact Manager

Geotechnique SGS Alexandria Environmental Client Laboratory Address

P.O. Box 880 Address Unit 16, 33 Maddox St Alexandria NSW 2015 PENRITH NSW 2751

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Emged@geotech.com.au Fmail au.environmental.sydney@sgs.com Email

12576/1 - Marsden Park Precinct Mon 31/10/2011 Project Samples Received Wed 9/11/2011 Order Number (Not specified) Report Due 99 SGS Reference SF102938 Samples

SUBMISSION DETAILS

COMMENTS .

Complete documentation received

This is to confirm that 99 samples were received on Monday 31/10/2011. Results are expected to be ready by Wednesday 9/11/2011. Please quote SGS reference SE102938 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix 99 Soils Type of documentation received Email Date documentation received Samples received in good order 31/10/11@1:14pm Yes Samples received without headspace N/A Sample temperature upon receipt 20°C Sample container provider Turnaround time requested Standard Client Samples received in correct containers Yes Sufficient sample for analysis Yes Sample cooling method None Samples clearly labelled Yes

Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.

Yes

To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.

SGS Australia Pty Ltd ABN 44 000 964 278

10 Reid Road

Perth Int'l Airport Newburn PO Box 32, Welshpool DC WA 6105 Australia WA 6896 Australia t +61 (0)8 9373 3500

f +61 (0)8 9373 3556

www.au.sgs.com



Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
001	TP-1 0.0-0.1	3	13	1	1	2
002	TP-1 1.0-1.1	3	-	1	1	-
003	TP-1 2.0-2.1	3	-	1	1	-
004	TP-2 0.0-0.1	3	-	1	1	-
005	TP-2 0.5-0.6	3	13	1	1	2
006	TP-2 1.5-1.6	3	-	1	1	-
007	TP-4 0.0-0.1	3	-	1	1	-
008	TP-4 1.0-1.1	3	-	1	1	-
009	TP-4 2.0-2.1	3	13	1	1	2
010	TP-5 0.0-0.1	3	-	1	1	-
011	TP-5 0.5-0.6	3	-	1	1	-
012	TP-5 1.5-1.6	3	13	1	1	2
013	TP-6 0.0-0.1	3	13	1	1	2
014	TP-6 0.5-0.6	3	-	1	1	-
015	TP-6 1.5-1.6	3	-	1	1	-
016	TP-7 0.0-0.1	3	-	1	1	-
017	TP-7 1.0-1.1	3	13	1	1	2
018	TP-7 2.0-2.1	3	-	1	1	-
019	TP-8 0.0-0.1	3	-	1	1	-
020	TP-8 1.0-1.1	3	-	1	1	-
021	TP-8 2.0-2.1	3	13	1	1	2
022	TP-9 0.0-0.1	3	13	1	1	2
023	TP-9 0.6-0.7	3	-	1	1	-
024	TP-9 1.5-1.6	3	-	1	1	

CONTINUED OVERLEAF

 $The above table \ represents \ SGS \ Environmental \ Services' \ interpretation \ of \ the \ client-supplied \ Chain \ Of \ Custody \ document.$

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

1/11/2011 Page 2 of 6



CLIENT DETAILS

Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
025	TP-10 0.0-0.1	3	-	1	1	-
026	TP-10 1.0-1.1	3	13	1	1	2
027	TP-10 2.0-2.1	3	-	1	1	-
028	TP-11 0.0-0.1	3	-	1	1	-
029	TP-11 0.6-0.7	3	13	1	1	2
030	TP-11 1.5-1.6	3	-	1	1	-
031	TP-12 0.0-0.1	3	-	1	1	-
032	TP-12 1.0-1.1	3	-	1	1	-
033	TP-12 2.0-2.1	3	13	1	1	2
034	TP-13 0.0-0.1	3	-	1	1	-
035	TP-13 1.0-1.1	3	-	1	1	-
036	TP-13 2.0-2.1	3	13	1	1	2
037	TP-14 0.0-0.1	3	13	1	1	2
038	TP-14 0.6-0.7	3	-	1	1	-
039	TP-14 1.7-1.8	3	-	1	1	-
040	TP-15 0.0-0.1	3	-	1	1	-
041	TP-15 1.0-1.1	3	13	1	1	2
042	TP-15 2.0-2.1	3	-	1	1	-
043	TP-16 0.0-0.1	3	-	1	1	-
044	TP-16 0.6-0.7	3	13	1	1	2
045	TP-16 1.5-1.6	3	-	1	1	-
046	TP-18 0.0-0.1	3	-	1	1	-
047	TP-18 1.0-1.1	3	-	1	1	-
048	TP-18 2.0-2.1	3	13	1	1	2

CONTINUED OVERLEAF

 $The above table \ represents \ SGS \ Environmental \ Services' \ interpretation \ of \ the \ client-supplied \ Chain \ Of \ Custody \ document.$

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

1/11/2011 Page 3 of 6



CLIENT DETAILS

Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
049	TP-19 0.0-0.1	3	13	1	1	2
050	TP-19 0.5-0.6	3	-	1	1	-
051	TP-19 1.5-1.6	3	13	1	1	2
052	TP-21 0.0-0.1	3	-	1	1	-
053	TP-21 1.0-1.1	3	13	1	1	2
054	TP-21 2.0-2.1	3	-	1	1	-
055	TP-22 0.0-0.1	3	-	1	1	-
056	TP-22 1.0-1.1	3	13	1	1	2
057	TP-22 2.0-2.1	3	-	1	1	-
058	TP-23 0.0-0.1	3	-	1	1	-
059	TP-23 0.5-0.6	3	13	1	1	2
060	TP-23 1.5-1.6	3	-	1	1	-
061	TP-24 0.0-0.1	3	-	1	1	-
062	TP-24 1.5-1.6	3	-	1	1	-
063	TP-24 2.3-2.4	3	13	1	1	2
064	TP-25 0.0-0.1	3	-	1	1	-
065	TP-25 1.2-1.3	3	13	1	1	2
066	TP-25 2.0-2.1	3	-	1	1	-
067	TP-26 0.0-0.1	3	-	1	1	-
068	TP-26 0.5-0.6	3	13	1	1	2
069	TP-26 1.5-1.6	3	-	1	1	-
070	TP-27 0.0-0.1	3	-	1	1	-
071	TP-27 0.5-0.6	3	-	1	1	-
072	TP-27 1.5-1.6	3	13	1	1	2

CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document.

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1/11/2011 Page 4 of 6



CLIENT DETAILS

Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
073	TP-28 0.0-0.1	3	13	1	1	2
074	TP-28 0.5-0.6	3	-	1	1	-
075	TP-28 1.5-1.6	3	-	1	1	-
076	TP-29 0.0-0.1	3	-	1	1	-
077	TP-29 1.1-1.2	3	13	1	1	2
078	TP-29 2.0-2.1	3	-	1	1	-
079	TP-30 0.0-0.1	3	-	1	1	-
080	TP-30 1.0-1.1	3	13	1	1	2
081	TP-30 2.0-2.1	3	-	1	1	-
082	TP-31 0.0-0.1	3	13	1	1	2
083	TP-31 1.0-1.1	3	-	1	1	-
084	TP-31 2.0-2.1	3	-	1	1	-
085	TP-32 0.0-0.1	3	-	1	1	-
086	TP-32 0.6-0.7	3	13	1	1	2
087	TP-32 1.5-1.6	3	-	1	1	-
088	TP-33 0.0-0.1	3	13	1	1	2
089	TP-33 1.0-1.1	3	-	1	1	-
090	TP-33 2.0-2.1	3	-	1	1	-
091	TP-34 0.0-0.1	3	-	1	1	-
092	TP-34 0.5-0.6	3	-	1	1	-
093	TP-34 1.5-1.6	3	13	1	1	2
094	TP-35 0.0-0.1	3	-	1	1	-
095	TP-35 1.0-1.1	3	13	1	1	2
096	TP-35 2.0-2.1	3	-	1	1	-

CONTINUED OVERLEAF

 $The above table \ represents \ SGS \ Environmental \ Services' \ interpretation \ of \ the \ client-supplied \ Chain \ Of \ Custody \ document.$

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

1/11/2011 Page 5 of 6



CLIENT DETAILS			
Client	Geotechnique	Project	12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
097	TP-36 0.0-0.1	3	13	1	1	2
098	TP-36 1.0-1.1	3	-	1	1	-
099	TP-36 2.0-2.1	3	-	1	1	-

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

1/11/2011 Page 6 of 6



PENRITH NSW 2751

ANALYTICAL REPORT



CLIENT DETAILS -LABORATORY DETAILS

Emged Rizkalla **Huong Crawford** Contact Manager

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Emged@geotech.com.au Email au.environmental.sydney@sgs.com Email

Project 12576/1 - Marsden Park Precinct SGS Reference SE102941 R0 (Not specified) Report Number 0000010912 Order Number 03 Nov 2011 Date Reported Samples 31 Oct 2011 Date Received

COMMENTS

The document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

SIGNATORIES

Dong Liang Inorganics Metals Team Leader Snezana Kostoska **Inorganics Chemist**

Greening Voxtosia



SE102941 R0

	Sa S	ple Number mple Matrix Sample Date ample Name	SE102941.001 Water 27 Oct 2011 DW1	SE102941.002 Water 28 Oct 2011 DW2	SE102941.003 Water 28 Oct 2011 DW3
Parameter	Units	LOR			
Conductivity and TDS by Calculation - Water Metho	d: AN106				
Conductivity @ 25 C	μS/cm	2	920	610	880
pH in water Method: AN101					
pH	pH Units	-	6.6	6.5	6.2

Page 2 of 4 03-November-2011





QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: the absolute difference of the two results divided by the average of the two results as a percentage. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Conductivity and TDS by Calculation - Water Method: ME-(AU)-[ENV]AN106

Parameter	QC	Units	LOR	MB	DUP %RPD	LCS
	Reference					%Recovery
Conductivity @ 25 C	LB007948	μS/cm	2	<2	2%	102%

pH in water Method: ME-(AU)-[ENV]AN101

Parameter	QC	Units	LOR	DUP %RPD	LCS
	Reference				%Recovery
pH	LB007947	pH Units	-	1%	99%

Page 3 of 4 03-November-2011





METHOD SUMMARY

METHOD

METHODOLOGY SUMMARY

AN101

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as μ mhos/cm or μ S/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2520 B.

EOOTNOTES

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

This analysis is not covered by the scope of accreditation.

Performed by outside laboratory.

LOR Limit of Reporting

Raised or Lowered Limit of Reporting

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QFH QC result is above the upper tolerance QFL QC result is below the lower tolerance

- The sample was not analysed for this analyte NVL Not Validated

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-09.pdf

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Page 4 of 4 03-November-2011



STATEMENT OF QA/QC PERFORMANCE AGAINST DATA QUALITY OBJECTIVES

SE102941 R0

CLIENT DETAILS ______ LABORATORY DETAILS

Contact Emged Rizkalla Manager Huong Crawford

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Project 12576/1 - Marsden Park Precinct SGS Reference SE102941 R0
Order Number (Not specified) Report Number 0000010913

Samples 3 Date Reported 03 Nov 2011

COMMENTS

All the laboratory data for each environmental matrix was compared to the SGS Environmental Services' stated data quality objectives (DQO).

Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the chain of custody document and was supplied by the client.

This QA/QC statement must be read in conjunction with the referenced analytical report.

The statement and the analytical report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Extraction Date pH in water 3 Items

Analysis Date pH in water 3 Items

SAMPLE SUMMARY

Sample counts by matrix
Date documentation received
Samples received without headspace
Sample container provider
Samples received in correct containers
Sample cooling method
Complete documentation received

3 Waters 31/10/11@4:31pm Yes SGS Yes Ice Bricks Yes Type of documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Sufficient sample for analysis Samples clearly labelled Email Yes 2.8°C Standard Yes Yes

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Alexandria NSW 2015 Australia

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HOLDING TIME SUMMARY



HOLDING TIMES -

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Conductivity and TDS by Ca	alculation - Water Method: ME-(AU)-[ENV]AN106						
DW1	SE102941.001	LB007948	27 Oct 2011	31 Oct 2011	24 Nov 2011	01 Nov 2011	24 Nov 2011	02 Nov 2011
DW2	SE102941.002	LB007948	28 Oct 2011	31 Oct 2011	25 Nov 2011	01 Nov 2011	25 Nov 2011	02 Nov 2011
DW3	SE102941.003	LB007948	28 Oct 2011	31 Oct 2011	25 Nov 2011	01 Nov 2011	25 Nov 2011	02 Nov 2011
pH in water Method: ME-	-(AU)-[ENV]AN101							
DW1	SE102941.001	LB007947	27 Oct 2011	31 Oct 2011	28 Oct 2011	01 Nov 2011†	28 Oct 2011	02 Nov 2011
DW2	SE102941.002	LB007947	28 Oct 2011	31 Oct 2011	29 Oct 2011	01 Nov 2011†	29 Oct 2011	02 Nov 2011
DW3	SE102941.003	LB007947	28 Oct 2011	31 Oct 2011	29 Oct 2011	01 Nov 2011†	29 Oct 2011	02 Nov 20111

3/11/2011 Page 2 of 8





Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

No Surrogates were required for this job.

3/11/2011 Page 3 of 8







Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, which is typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

Parameter	Units	Control LOR	BLK MB
Conductivity and TDS by Calculation - Water Method: ME-(AU)-[ENV]AN106 LB007948.001			
Conductivity @ 25 C	μS/cm	2	<2

3/11/2011 Page 4 of 8





Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Sa	mple Name		SE10294	11.003-DUP	
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Conductivity and TDS by Calculation - Water Method: ME-(AU)-[ENV]AN106 LB007948.006						
Conductivity @ 25 C	μS/cm	2	880	860	15	2
pH In water Method: ME-(AU)-[ENV]AN101 LB007947.005						
pH	pH Units	-	6.2	6.2	17	1

3/11/2011 Page 5 of 8





LABORATORY CONTROL STANDARDS

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of the report.

Recovery is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Contr	ol		LCS	STD	
Parameter	Units	LOR	Result	Expected Result	Criteria %	Recovery %
Conductivity and TDS by Calculation - Water Method: ME-(AU)-[ENV]AN108 LB007948.002						
Conductivity @ 25 C	μS/cm	2	310	303	90 - 110	102
pH in water Method: ME-(AU)-[ENV]AN101 LB007947.001						
рН	pH Units	-	7.4	7.415	98 - 102	99

3/11/2011 Page 6 of 8





QUALITY CONTROL - MATRIX SPIKES

Matrix spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of the report. Recovery is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

No Matrix Spikes were required for this job.

3/11/2011 Page 7 of 8



MATRIX SPIKE DUPLICATES



Matrix spike duplicates are calculated as relative percent difference using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean The original result is the analyte concentration of the matrix spike and the replicate result is the analyte concentration of the matrix spike duplicate. The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability RPD is shown in Green when within suggested criteria or **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria.

No Matrix Spike Duplicates were required for this job.

FOOTNOTES _

IS Insufficient sample for analysis. LNR Sample listed, but not received.

* NATA Accreditation does not cover this analysis.

^ Performed by outside laboratory.

LOR Limit of Reporting

QFH QC result is above the upper tolerance
QFL QC result is below the lower tolerance
NA The sample was not analysed for this analyte

Samples analysed as received.

Solid samples expressed on a dry weight basis.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-09.pdf

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3/11/2011 Page 8 of 8

Ą	Legend WG								h	J	0		_				PH: ATTN:		TO:	Lemko Place
Water sample plactic hottle	t: Water sample, glass bottle	Emged Rizkalla	Name						DW3		DW2		DW1		Location		02 8594 0400 MS ANGELA MAMALICOS	UNIT 16 33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRONMENTAL SERVICES	Lemko Place PENRITH NSW 2750
lastic hottle	lass bottle	ılla													Depth (m)	Sampling details	AMALICOS	REET NSW 2015	MENTAL SERVI	
				Relin					28/10/2011		28/10/2011		27/11/2011		Date	S			CES	
		FR	Signature	Relinquished by											Time					PENF
DSG	USG		œ.												Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751
Disturbed	Undisturb	_							WG		WG		WG		Water	e type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	31.10.11	Date						~		~		~	EC			499			Fax: (02) 4722 6161 email: info@geotech.com.au
<	Ü	V.							~		<		<	PH			Project Manager:	1	Sampling By:	61 ech.com.au
Test required	Disturbed	pen	Name				No.	18/73	100	5000	T. Ver)Cat		3	Ze		nager:			
red	Disturbed soil sample (small plastic bag)					SB	Contract of	perature on Rece	oils Pick	ning infact	D. D.	101410 0941	2112	のアク	results required by.		S		AN	
	all plastic bag)	market	Signature	Received by		1029 41	m 00 4	2360	3)	PM	9	-		ired by.	المل المن	Location:	Project:	Job No:	
# Geotechn	* Purge & Trap			~		1.1	9					25	Bacoir				Northwest G	Marsden Park Precinct	12576/1	Page
# Geotechnique Screen		OHIG				· · · · · · · · · · · · · · · · · · ·	100		teceived	9y		DIGS INTECT	CELCODISI FOR	Storage Location			Northwest Growth Centre, Marsden Park	ırk Precinct		_
	[®] mole H ⁺ /tonne	8	Date						YES	G)	YES	n	YES	SAMPLE			Marsden Park			of 1





CLIENT DETAILS _____ LABORATORY DETAILS _____

Contact Emged Rizkalla Manager Huong Crawford

Client Geotechnique Laboratory SGS Alexandria Environmental
Address P.O. Box 880 Address Unit 16, 33 Maddox St

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Email Emged@geotech.com.au Email au.environmental.sydney@sgs.com

Project 12576/1 - Marsden Park Precinct Samples Received Mon 31/10/2011
Order Number (Not specified) Report Due Thu 3/11/2011

Samples 3 SGS Reference **SE102941**

SUBMISSION DETAILS

This is to confirm that 3 samples were received on Monday 31/10/2011. Results are expected to be ready by Thursday 3/11/2011. Please quote SGS reference SE102941 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix 3 Waters Type of documentation received Email Date documentation received Samples received in good order 31/10/11@4:31pm Yes Samples received without headspace Sample temperature upon receipt 2.8°C Yes Sample container provider Turnaround time requested Standard SGS Samples received in correct containers Yes Sufficient sample for analysis Yes Sample cooling method Ice Bricks Samples clearly labelled Yes

Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.

Yes

COMMENTS

Site: Northwest Growth Centre, Marsden Park

Complete documentation received

To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.

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— CLIENT DETAILS			
Client	Geotechnique	Project	12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Water	pH in water
001	DW1	1	1
002	DW2	1	1
003	DW3	1	1

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

2/11/2011 Page 2 of 2





CLIENT DETAILS -LABORATORY DETAILS

Emged Rizkalla Manager **Huong Crawford** Contact

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Emged@geotech.com.au Email au.environmental.sydney@sgs.com Email

12576/1 - Marsden Park Precinct Project SGS Reference SE103092 R0 0000012038 Order Number Report Number 108 17 Nov 2011 Date Reported Samples 04 Nov 2011 Date Received

COMMENTS

The document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

ESP subcontracted to SGS Cairns, 2/58 Comport St, Portsmith QLD 4870, NATA Accreditation Number: 2562, Site Number: 3146, report No. CE74867.

Site: Northwest Growth Centre, Marsden Park Sample No. 97 pH Dups failed due to sample is poorly buffered.

PENRITH NSW 2751

SIGNATORIES

Snezana Kostoska **Inorganics Chemist**

Every lostosia



SE103092 R0

		ple Number mple Matrix	SE103092.001 Soil	SE103092.002 Soil	SE103092.003 Soil	SE103092.004 Soil	SE103092.005 Soil
	5	Sample Date	31 Oct 2011 TP-3 0.0-0.1	31 Oct 2011 TP-3 0.5-0.6	31 Oct 2011 TP-3 1.5-1.6	31 Oct 2011 TP-17 0.0-0.1	31 Oct 2011 TP-17 1.0-1.1
			11-5 0.0-0.1	11-3 0.3-0.0	17-5 1.5-1.0	117-17 0.0-0.1	17-17 1.0-1.1
Parameter Conductivity and TDS by Calculation - Soil Meth	Units nod: AN106	LOR					
Conductivity (1:5 dry sample basis)	µS/cm	1	32	79	54	14	200
Conditioning (1.0 dry sample basis)	ролон	· .		10	V	.,,	200
pH in soil (1:5) Method: AN101							
рН	pH Units	-	6.0	5.2	4.9	6.0	5.4
Soluble Anions in Soil by Ion Chromatography	Method: AN245						
Chloride	mg/kg	0.25	13	-	-	-	180
Sulphate	mg/kg	0.5	8.6	-	-	-	130
Moisture Content Method: AN234							
% Moisture	%	0.5	9.0	13.7	11.9	12.1	18.5
		ple Number	SE103092.006	SE103092.007	SE103092.008	SE103092.009	SE103092.010
	Sa	mple Matrix	Soil	Soil	Soil	Soil	Soil
		Sample Date ample Name	31 Oct 2011 TP-17 2.0-2.1	31 Oct 2011 TP-20 0.0-0.1	31 Oct 2011 TP-20 0.5-0.6	31 Oct 2011 TP-20 1.5-1.6	01 Nov 2011 TP-37 0.0-0.1
Parameter	Units	LOR					
	nod: AN106	LOK					
Conductivity (1:5 dry sample basis)	μS/cm	1	350	140	720	1100	21
pH in soil (1:5) Method: AN101	'					1	
pH	pH Units	-	5.3	5.9	5.7	6.4	5.5
Soluble Anions in Soil by Ion Chromatography	Method: AN245						
Chloride	mg/kg	0.25	-	-	990	-	-
Sulphate	mg/kg	0.5	-	-	230	-	-
Moisture Content Method: AN234							
% Moisture	%	0.5	17.9	32.9	14.8	18.1	7.5
	Sam	ple Number	SE103092.011	SE103092.012	SE103092.013	SE103092.014	SE103092.015
	Sa	mple Matrix	Soil	Soil	Soil	Soil	Soil
		Sample Date ample Name	01 Nov 2011 TP-37 1.0-1.1	01 Nov 2011 TP-37 2.0-2.1	01 Nov 2011 TP-38 0.0-0.1	01 Nov 2011 TP-38 0.5-0.6	01 Nov 2011 TP-38 1.5-1.6
Parameter	Units	LOR					
	nod: AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	440	480	22	320	670
pH in soil (1:5) Method: AN101	<u> </u>			1			
рН	pH Units	-	6.4	6.3	5.5	6.7	7.5
Soluble Anions in Soil by Ion Chromatography	Method: AN245						
Soluble Anions in Soil by Ion Chromatography Chloride	Method: AN245	0.25	-	600	-	290	-

Page 2 of 12 17-November-2011



SE103092 R0

	Sa	ple Number mple Matrix	SE103092.011 Soil	SE103092.012 Soil	SE103092.013 Soil	SE103092.014 Soil	SE103092.01 Soil
		ample Date mple Name	01 Nov 2011 TP-37 1.0-1.1	01 Nov 2011 TP-37 2.0-2.1	01 Nov 2011 TP-38 0.0-0.1	01 Nov 2011 TP-38 0.5-0.6	01 Nov 2011 TP-38 1.5-1.6
Parameter	Units	LOR					
Moisture Content Method: AN234							
% Moisture	%	0.5	13.5	13.4	8.3	12.5	18.5
	Sam	ple Number	SE103092.016	SE103092.017	SE103092.018	SE103092.019	SE103092.02
	S	mple Matrix ample Date mple Name	Soil 01 Nov 2011 TP-39 0.0-0.1	Soil 01 Nov 2011 TP-39 1.0-1.1	Soil 01 Nov 2011 TP-39 2.0-2.1	Soil 01 Nov 2011 TP-40 0.0-0.1	Soil 01 Nov 2011 TP-40 0.5-0.0
Parameter	Units	LOR					
	d: AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	720	25	880	36	250
pH in soil (1:5) Method: AN101							
pH	pH Units	-	6.1	6.1	5.1	6.0	8.9
Soluble Anions in Soil by Ion Chromatography Me							
Chloride Sulphate	mg/kg mg/kg	0.25	-	7.6 8.5	-	-	-
	_						
Sulphate Moisture Content Method: AN234	_						
Sulphate Moisture Content Method: AN234	mg/kg	0.5	18.2	12.3	19.9	8.6	13.5
Sulphate Moisture Content Method: AN234	mg/kg %	0.5	-	8.5	-	-	13.5
Sulphate	mg/kg % Sam Sa Sa	0.5 0.5 ple Number	- 18.2 SE103092.021	12.3 SE103092.022	19.9 SE103092.023	8.6 SE103092.024	13.5 SE103092.02
Moisture Content Method: AN234 % Moisture	mg/kg % Sam Sa Sa Sa	0.5 0.5 ple Number mple Matrix ample Date mple Name	18.2 SE103092.021 Soil 01 Nov 2011	8.5 12.3 SE103092.022 Soil 01 Nov 2011	19.9 SE103092.023 Soil 01 Nov 2011	8.6 SE103092.024 Soil 01 Nov 2011	13.5 SE103092.02 Soil 01 Nov 201
Moisture Content Method: AN234 % Moisture Parameter	mg/kg % Sam Sa Sa	0.5 0.5 Die Number mple Matrix ample Date	18.2 SE103092.021 Soil 01 Nov 2011	8.5 12.3 SE103092.022 Soil 01 Nov 2011	19.9 SE103092.023 Soil 01 Nov 2011	8.6 SE103092.024 Soil 01 Nov 2011	13.5 SE103092.02 Soil 01 Nov 201
Moisture Content Method: AN234 % Moisture Parameter	mg/kg % Sam Sa Sa Sa Units	0.5 0.5 ple Number mple Matrix ample Date mple Name	18.2 SE103092.021 Soil 01 Nov 2011	8.5 12.3 SE103092.022 Soil 01 Nov 2011	19.9 SE103092.023 Soil 01 Nov 2011	8.6 SE103092.024 Soil 01 Nov 2011	13.5 SE103092.02 Soil 01 Nov 2014
Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method Conductivity (1:5 dry sample basis)	mg/kg % Sam Sa Sa Sa Units	0.5 DIE Number mple Matrix ample Date mple Name	18.2 SE103092.021 Soil 01 Nov 2011 TP-40 1.5-1.6	8.5 12.3 SE103092.022 Soil 01 Nov 2011 TP-41 0.0-0.1	19.9 SE103092.023 Soil 01 Nov 2011 TP-41 1.0-1.1	8.6 SE103092.024 Soil 01 Nov 2011 TP-41 2.0-2.1	13.5 SE103092.02 Soil 01 Nov 201 ⁻ TP-42 0.0-0.
Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method Conductivity (1:5 dry sample basis)	mg/kg % Sam Sa Sa Sa Units	0.5 DIE Number mple Matrix ample Date mple Name	18.2 SE103092.021 Soil 01 Nov 2011 TP-40 1.5-1.6	8.5 12.3 SE103092.022 Soil 01 Nov 2011 TP-41 0.0-0.1	19.9 SE103092.023 Soil 01 Nov 2011 TP-41 1.0-1.1	8.6 SE103092.024 Soil 01 Nov 2011 TP-41 2.0-2.1	13.5 SE103092.02 Soil 01 Nov 2011 TP-42 0.0-0.
Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH	mg/kg % Sam Sa Sa Sa Units 1: AN106 μS/cm	0.5 DIE Number mple Matrix ample Date mple Name LOR	18.2 SE103092.021 Soil 01 Nov 2011 TP-40 1.5-1.6	8.5 12.3 SE103092.022 Soil 01 Nov 2011 TP-41 0.0-0.1	19.9 SE103092.023 Soil 01 Nov 2011 TP-41 1.0-1.1	8.6 SE103092.024 Soil 01 Nov 2011 TP-41 2.0-2.1	13.5 SE103092.02 Soil 01 Nov 201 ⁻ TP-42 0.0-0.
Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH Soluble Anions in Soil by Ion Chromatography Me	mg/kg % Sam Sa Sa Units 1: ΑΝ106 μS/cm	0.5 DIE Number mple Matrix ample Date mple Name LOR	18.2 SE103092.021 Soil 01 Nov 2011 TP-40 1.5-1.6	8.5 12.3 SE103092.022 Soil 01 Nov 2011 TP-41 0.0-0.1	19.9 SE103092.023 Soil 01 Nov 2011 TP-41 1.0-1.1	8.6 SE103092.024 Soil 01 Nov 2011 TP-41 2.0-2.1	13.5 SE103092.02 Soil 01 Nov 201 ⁻ TP-42 0.0-0.
Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH	mg/kg % Sam Sa Sa Sa Units 1: AN106 μS/cm pH Units	0.5 DIE Number mple Matrix ample Date mple Name LOR	18.2 SE103092.021 Soil 01 Nov 2011 TP-40 1.5-1.6	8.5 12.3 SE103092.022 Soil 01 Nov 2011 TP-41 0.0-0.1	19.9 SE103092.023 Soil 01 Nov 2011 TP-41 1.0-1.1	8.6 SE103092.024 Soil 01 Nov 2011 TP-41 2.0-2.1	13.5 SE103092.02 Soil 01 Nov 201 TP-42 0.0-0.
Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH Soluble Anions in Soil by Ion Chromatography Method	mg/kg % Sam Sa Sa Sa Units 1: AN106 μS/cm pH Units ethod: AN245 mg/kg	0.5 Dele Number mple Matrix ample Date mple Name LOR 1	18.2 SE103092.021 Soil 01 Nov 2011 TP-40 1.5-1.6	8.5 12.3 SE103092.022 Soil 01 Nov 2011 TP-41 0.0-0.1	19.9 SE103092.023 Soil 01 Nov 2011 TP-41 1.0-1.1	8.6 SE103092.024 Soil 01 Nov 2011 TP-41 2.0-2.1	13.5 SE103092.02 Soil 01 Nov 201 TP-42 0.0-0.

Page 3 of 12 17-November-2011



SE103092 R0

		iple Number imple Matrix	SE103092.026 Soil	SE103092.027 Soil	SE103092.028 Soil	SE103092.029 Soil	SE103092.030 Soil
	:	Sample Date	01 Nov 2011				
	Si.	ample Name	TP-42 0.5-0.6	TP-42 1.5-1.6	TP-43 0.0-0.1	TP-43 1.0-1.1	TP-43 2.0-2.1
Parameter Conductivity and TDS by Calculation - Soil Metho	Units od: AN106	LOR					
		1	44	24	420	860	4400
Conductivity (1:5 dry sample basis)	μS/cm	1	44	34	130	860	1100
pH in soil (1:5) Method: AN101							
рН	pH Units	-	5.9	6.5	7.0	4.9	4.7
Soluble Anions in Soil by Ion Chromatography	Wethod: AN245						
Chloride	mg/kg	0.25	-	-	-	1200	-
Sulphate	mg/kg	0.5	-	-	-	180	-
Moisture Content Method: AN234							
% Moisture	%	0.5	12.1	10.2	5.5	12.1	19.4
		l. N	05400000000	0540000	0540000	0540000	0540000
	Sa	iple Number imple Matrix	SE103092.031 Soil	SE103092.032 Soil	SE103092.033 Soil	SE103092.034 Soil	SE103092.035 Soil
		Sample Date ample Name	01 Nov 2011 TP-44 0.0-0.1	01 Nov 2011 TP-44 0.5-0.6	01 Nov 2011 TP-44 1.5-1.6	01 Nov 2011 TP-45 0.0-0.1	01 Nov 2011 TP-45 1.0-1.1
Parameter Conductivity and TDS by Calculation - Soil Metho	Units od: AN106	LOR					
Conductivity (1:5 dry sample basis)	μS/cm	1	47	570	760	61	1200
Conditioning (1.5 day sample basis)	μο/οπ	' '		010	700	01	1200
pH in soil (1:5) Method: AN101							
рН	pH Units	-	6.2	5.0	4.7	6.7	4.5
Soluble Anions in Soil by Ion Chromatography	Wethod: AN245						
Chloride	mg/kg	0.25	-	540	-	-	-
Sulphate	mg/kg	0.5	-	430000	-	-	-
Moisture Content Method: AN234							
% Moisture	%	0.5	6.7	17.7	15.3	8.3	16.6
	Som	ıple Number	SE103092.036	SE103092.037	SE103092.038	SE103092.039	SE103092.040
	Sa	imple Matrix	Soil	Soil	Soil	Soil	Soil
		Sample Date ample Name	01 Nov 2011 TP-45 2.0-2.1	01 Nov 2011 TP-46 0.0-0.1	01 Nov 2011 TP-46 0.5-0.6	01 Nov 2011 TP-46 1.5-1.6	01 Nov 2011 TP-47 0.0-0.1
Baramatar	Units						
Parameter Conductivity and TDS by Calculation - Soil Metho	od: AN106	LOR					
Conductivity (1:5 dry sample basis)	μS/cm	1	800	48	170	44	110
pH in soil (1:5) Method: AN101	F-1	1 - 1					
	pU I Inite	_	4.9	6.3	5.2	6.0	7.1
рН	pH Units	-	4.3	0.3	5.2	0.0	7.1
Soluble Anions in Soil by Ion Chromatography	Wethod: AN245						
						••	
Chloride	mg/kg	0.25	1100	-	-	80	

Page 4 of 12 17-November-2011



SE103092 R0

		Sample Number		SE103092.037	SE103092.038	SE103092.039	SE103092.040
		mple Matrix	Soil Soil 01 Nov 2011		Soil 01 Nov 2011	Soil	Soil
		ample Date mple Name	TP-45 2.0-2.1	01 Nov 2011 TP-46 0.0-0.1	TP-46 0.5-0.6	01 Nov 2011 TP-46 1.5-1.6	01 Nov 2011 TP-47 0.0-0.1
Parameter	Units	LOR					
Moisture Content Method: AN234							
% Moisture	%	0.5	12.6	8.9	9.4	12.8	12.5
	Sam	ple Number	SE103092.041	SE103092.042	SE103092.043	SE103092.044	SE103092.04
		mple Matrix	Soil	Soil	Soil	Soil	Soil
		ample Date	01 Nov 2011	01 Nov 2011	01 Nov 2011	01 Nov 2011	01 Nov 201
	Sa	mple Name	TP-47 1.0-1.1	TP-47 2.0-2.1	TP-48 0.0-0.1	TP-48 0.5-0.6	TP-48 1.0-1.
Parameter	Units	LOR					
	od: AN106	LOIL					
Conductivity (1:5 dry sample basis)	μS/cm	1	1000	910	62	140	69
pH in soil (1:5) Method: AN101							
рН	pH Units	_	4.9	4.8	7.2	5.1	5.6
·							
	Method: AN245						
Chloride	mg/kg	0.25	-	1100	-	-	45
		0.25		1100 610		-	45 59
Chloride	mg/kg						
Chloride Sulphate	mg/kg						
Chloride Sulphate Moisture Content Method: AN234	mg/kg	0.5	-	610	-	-	59
Chloride Sulphate Moisture Content Method: AN234	mg/kg mg/kg %	0.5 0.5 ple Number	- 18.8 SE103092.046	17.1 SE103092.047	13.2 SE103092.048	16.2 SE103092.049	10.0 SE103092.05
Chloride Sulphate Moisture Content Method: AN234	mg/kg mg/kg % Sam Sai	0.5 0.5 0.6 0.7	- 18.8 SE103092.046 Soil	17.1 SE103092.047 Soil	13.2 SE103092.048 Soil	16.2 SE103092.049 Soil	10.0 SE103092.05 Soil
Chloride Sulphate Moisture Content Method: AN234	mg/kg mg/kg % Sam Sai	0.5 0.5 Die Number mple Matrix ample Date	18.8 SE103092.046 Soil 01 Nov 2011	610 17.1 SE103092.047 Soil 01 Nov 2011	13.2 SE103092.048 Soil 01 Nov 2011	16.2 SE103092.049 Soil 01 Nov 2011	10.0 SE103092.05 Soil 01 Nov 201
Chloride Sulphate Moisture Content Method: AN234	mg/kg mg/kg % Sam Sai	0.5 0.5 0.6 0.7	- 18.8 SE103092.046 Soil	17.1 SE103092.047 Soil	13.2 SE103092.048 Soil	16.2 SE103092.049 Soil	10.0 SE103092.05 Soil 01 Nov 2011
Chloride Sulphate Moisture Content Method: AN234	mg/kg mg/kg % Sam Sai	0.5 0.5 Die Number mple Matrix ample Date	18.8 SE103092.046 Soil 01 Nov 2011	610 17.1 SE103092.047 Soil 01 Nov 2011	13.2 SE103092.048 Soil 01 Nov 2011	16.2 SE103092.049 Soil 01 Nov 2011	10.0 SE103092.05 Soil 01 Nov 2014
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter	mg/kg mg/kg % Sam Sai Sa	0.5 0.5 ple Number mple Matrix ample Date mple Name	18.8 SE103092.046 Soil 01 Nov 2011	610 17.1 SE103092.047 Soil 01 Nov 2011	13.2 SE103092.048 Soil 01 Nov 2011	16.2 SE103092.049 Soil 01 Nov 2011	10.0 SE103092.05 Soil 01 Nov 2011
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method	mg/kg mg/kg % Sam Sai Sa Units	0.5 DIE Number mple Matrix ample Date mple Name	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter	mg/kg mg/kg % Sam Sai Sa Sa Units	0.5 0.5 ple Number mple Matrix ample Date mple Name	18.8 SE103092.046 Soil 01 Nov 2011	610 17.1 SE103092.047 Soil 01 Nov 2011	13.2 SE103092.048 Soil 01 Nov 2011	16.2 SE103092.049 Soil 01 Nov 2011	10.0 SE103092.05 Soil 01 Nov 2011
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis)	mg/kg mg/kg % Sam Sai Sa Units	0.5 DIE Number mple Matrix ample Date mple Name	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 201 ⁻ TP-50 0.5-0.
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Method	mg/kg mg/kg % Sam Sai Sa Units	0.5 DIE Number mple Matrix ample Date mple Name	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 201 ⁻ TP-50 0.5-0.
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis)	mg/kg mg/kg % Sam Sai Sa Units	0.5 DIE Number mple Matrix ample Date mple Name	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.6
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101	mg/kg mg/kg % Sam Sai Sa Units od: AN106 μS/cm	0.5 Dele Number mple Matrix ample Date mple Name LOR	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH	mg/kg mg/kg % Sam Sai Sa Units od: AN106 μS/cm	0.5 0.5 ple Number mple Matrix ample Date mple Name LOR	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) PH in soil (1:5) Method: AN101 pH	mg/kg mg/kg % Sam Sai Sa Sa Units Od: AN106 μS/cm	0.5 0.5 ple Number mple Matrix ample Date mple Name LOR	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH Soluble Anions in Soil by Ion Chromatography	mg/kg mg/kg % Sam Sai Sa Units Od: AN106 μS/cm pH Units	0.5 Dele Number mple Matrix ample Date mple Name LOR	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH Soluble Anions in Soil by Ion Chromatography Method	mg/kg mg/kg % Sam Sai Sa Units Od: AN106 μS/cm pH Units Method: AN245 mg/kg	0.5 O.5 Dele Number mple Matrix ample Date mple Name LOR 1	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1 500	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: AN101 pH Soluble Anions in Soil by Ion Chromatography Method	mg/kg mg/kg % Sam Sai Sa Units Od: AN106 μS/cm pH Units Method: AN245 mg/kg	0.5 O.5 Dele Number mple Matrix ample Date mple Name LOR 1	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1 500	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05 Soil 01 Nov 2011 TP-50 0.5-0.0
Chloride Sulphate Moisture Content Method: AN234 % Moisture Parameter Conductivity and TDS by Calculation - Soil Metho Conductivity (1:5 dry sample basis) PH in soil (1:5) Method: AN101 pH Soluble Anions in Soil by Ion Chromatography Chloride Sulphate	mg/kg mg/kg % Sam Sai Sa Units Od: AN106 μS/cm pH Units Method: AN245 mg/kg	0.5 O.5 Dele Number mple Matrix ample Date mple Name LOR 1	18.8 SE103092.046 Soil 01 Nov 2011 TP-49 0.0-0.1	610 17.1 SE103092.047 Soil 01 Nov 2011 TP-49 1.0-1.1 500	13.2 SE103092.048 Soil 01 Nov 2011 TP-49 2.0-2.1	16.2 SE103092.049 Soil 01 Nov 2011 TP-50 0.0-0.1	10.0 SE103092.05: Soil 01 Nov 2011 TP-50 0.5-0.6

Page 5 of 12 17-November-2011



SE103092 R0

		ple Number mple Matrix	SE103092.051 Soil	SE103092.052 Soil	SE103092.053 Soil	SE103092.054 Soil	SE103092.055 Soil
	s	ample Date	01 Nov 2011 TP-50 1.5-1.6	01 Nov 2011 TP-51 0.0-0.1	01 Nov 2011 TP-51 1.0-1.1	01 Nov 2011 TP-51 2.0-2.1	01 Nov 2011 TP-52 0.0-0.1
	Sa	imple Name	17-50 1.5-1.6	17-51 0.0-0.1	17-51 1.0-1.1	1F-51 2.0-2.1	17-52 0.0-0.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	1100	58	520	310	37
pH in soil (1:5) Method: AN101							
рН	pH Units	-	4.4	6.2	9.5	9.4	6.2
Soluble Anions in Soil by Ion Chromatography Meth	nod: AN245						
Chloride	mg/kg	0.25	1000	-	210	-	-
Sulphate	mg/kg	0.5	350	-	320	-	-
Moisture Content Method: AN234							
% Moisture	%	0.5	18.2	11.5	13.0	11.1	9.2
	Sai S	ple Number mple Matrix sample Date imple Name	SE103092.056 Soil 01 Nov 2011 TP-52 0.5-0.6	SE103092.057 Soil 01 Nov 2011 TP-52 1.5-1.6	SE103092.058 Soil 02 Nov 2011 TP-53 0.0-0.1	SE103092.059 Soil 02 Nov 2011 TP-53 1.0-1.1	SE103092.060 Soil 02 Nov 2011 TP-53 2.0-2.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	310	860	120	800	910
pH in soil (1:5) Method: AN101							
рН	pH Units	-	5.7	9.2	7.4	6.0	5.4
Soluble Anions in Soil by Ion Chromatography Meth	nod: AN245						
Chloride	mg/kg	0.25	-	900	-	1100	-
Sulphate	mg/kg	0.5	-	140	-	160	-
Moisture Content Method: AN234							
% Moisture	%	0.5	10.9	12.5	7.4	10.4	18.5
	Sai S	ple Number mple Matrix sample Date imple Name	SE103092.061 Soil 02 Nov 2011 TP-54 0.0-0.1	SE103092.062 Soil 02 Nov 2011 TP-54 0.5-0.6	SE103092.063 Soil 02 Nov 2011 TP-54 1.5-1.6	SE103092.064 Soil 02 Nov 2011 TP-55 0.0-0.1	SE103092.065 Soil 02 Nov 2011 TP-55 1.0-1.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	72	520	1100	250	390
pH in soil (1:5) Method: AN101							
pH	pH Units	-	6.5	5.1	7.0	7.6	6.7
Soluble Anions in Soil by Ion Chromatography Meth	nod: AN245						
, , , , , , , , , , , , , , , , , , , ,							
Chloride	mg/kg	0.25	-	560	-	150 67	-

Page 6 of 12 17-November-2011



SE103092 R0

	Sa S	ple Number mple Matrix Sample Date Imple Name	SE103092.061 Soil 02 Nov 2011 TP-54 0.0-0.1	SE103092.062 Soil 02 Nov 2011 TP-54 0.5-0.6	SE103092.063 Soil 02 Nov 2011 TP-54 1.5-1.6	SE103092.064 Soil 02 Nov 2011 TP-55 0.0-0.1	SE103092.065 Soil 02 Nov 2011 TP-55 1.0-1.1
Parameter	Units	LOR					
Moisture Content Method: AN234	Office	LOIL					
	2/	0.5					
% Moisture	%	0.5	10.9	17.1	20.8	6.2	14.3
	Sam	ple Number	SE103092.066	SE103092.067	SE103092.068	SE103092.069	SE103092.070
	Sa	mple Matrix	Soil	Soil	Soil	Soil	Soil
		ample Date	02 Nov 2011 TP-55 2.0-2.1	02 Nov 2011 TP-56 0.0-0.1	02 Nov 2011 TP-56 0.5-0.6	02 Nov 2011 TP-56 1.5-1.6	02 Nov 2011 TP-57 0.0-0.1
	0.	imple Hame	11 -33 2.0-2.1	11 -30 0.0-0.1	11 -30 0.3-0.0	11 -50 1.5-1.0	11 -57 0.0-0.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	940	43	260	1100	42
pH in soil (1:5) Method: AN101	1						
pH	pH Units	-	5.0	5.6	5.0	4.9	6.4
Soluble Anions in Soil by Ion Chromatography Met Chloride Sulphate	mg/kg	0.25	-	-	-	1600 360	-
Moisture Content Method: AN234	%	0.5	40.7	0.0	46.0	45.0	40.0
% Moisture	70	0.5	18.7	9.8	16.8	15.0	10.9
	Sam	ple Number	SE103092.071	SE103092.072	SE103092.073	SE103092.074	SE103092.075
	Sa	mple Matrix	Soil	Soil	Soil	Soil	Soil
		ample Date	02 Nov 2011 TP-57 1.0-1.1	02 Nov 2011 TP-57 2.0-2.1	02 Nov 2011 TP-58 0.0-0.1	02 Nov 2011 TP-58 0.5-0.6	02 Nov 2011 TP-58 1.5-1.6
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	1300	1200	180	810	1200
pH in soil (1:5) Method: AN101							
рН	pH Units	-	7.4	7.5	6.8	5.3	6.3
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Chloride	mg/kg	0.25	-	1700	140	-	-
Sulphate	mg/kg	0.5	-	220	77	-	-
Moisture Content Method: AN234							
% Moisture	%	0.5	14.5	15.3	16.6	16.4	17.7

Page 7 of 12 17-November-2011



SE103092 R0

Parameter	Sai S	ple Number nple Matrix ample Date mple Name	SE103092.076 Soil 02 Nov 2011 TP-59 0.0-0.1	SE103092.077 Soil 02 Nov 2011 TP-59 1.0-1.1	SE103092.078 Soil 02 Nov 2011 TP-59 2.0-2.1	SE103092.079 Soil 03 Nov 2011 TP-60 0.0-0.1	SE103092.080 Soil 03 Nov 2011 TP-60 0.5-0.6
Conductivity and TDS by Calculation - Soil Method:							
Conductivity (1:5 dry sample basis)	μS/cm	1	110	1200	1400	610	1300
pH in soil (1:5) Method: AN101							
pH	pH Units	-	6.6	4.5	4.5	5.3	5.3
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Chloride	mg/kg	0.25	-	1900	-	-	2000
Sulphate	mg/kg	0.5	-	390	-	-	380
Moisture Content Method: AN234							
% Moisture	%	0.5	5.3	16.7	17.0	15.9	16.0
	Sai S Sa	ple Number nple Matrix ample Date mple Name	SE103092.081 Soil 03 Nov 2011 TP-60 1.0-1.1	SE103092.082 Soil 03 Nov 2011 TP-61 0.0-0.1	SE103092.083 Soil 03 Nov 2011 TP-61 1.0-1.1	SE103092.084 Soil 03 Nov 2011 TP-61 2.0-2.1	SE103092.085 Soil 03 Nov 2011 TP-62 0.0-0.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	1600	54	160	550	81
pH in soil (1:5) Method: AN101							
рН	pH Units	-	7.0	6.2	5.7	6.5	6.4
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Chloride	mg/kg	0.25	-	-	-	700	-
Sulphate	mg/kg	0.5	-	-	-	200	-
Moisture Content Method: AN234							
% Moisture	%	0.5	15.5	16.6	18.4	13.6	9.5
	Sai S	ple Number mple Matrix ample Date mple Name	SE103092.086 Soil 03 Nov 2011 TP-62 0.5-0.6	SE103092.087 Soil 03 Nov 2011 TP-62 1.5-1.6	SE103092.088 Soil 03 Nov 2011 TP-63 0.0-0.1	SE103092.089 Soil 03 Nov 2011 TP-63 0.5-0.6	SE103092.090 Soil 03 Nov 2011 TP-63 1.0-1.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	240	2000	35	150	550
pH in soil (1:5) Method: AN101							
рН	pH Units	-	6.3	4.6	6.0	5.2	5.0
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Chloride	mg/kg	0.25	210	-	-	-	190
			90		-		960

Page 8 of 12 17-November-2011



SE103092 R0

	Sam	ple Number	SE103092.086	SE103092.087	SE103092.088	SE103092.089	SE103092.09
		mple Matrix	Soil	Soil	Soil	Soil	Soil
		Sample Date ample Name	03 Nov 2011 TP-62 0.5-0.6	03 Nov 2011 TP-62 1.5-1.6	03 Nov 2011 TP-63 0.0-0.1	03 Nov 2011 TP-63 0.5-0.6	03 Nov 2011 TP-63 1.0-1.
Parameter	Units	LOR					
Moisture Content Method: AN234							
% Moisture	%	0.5	20.6	19.6	7.9	13.7	12.5
	Sam	ple Number	SE103092.091	SE103092.092	SE103092.093	SE103092.094	SE103092.09
		mple Matrix	Soil	Soil	Soil	Soil	Soil
		Sample Date ample Name	03 Nov 2011 TP-64 0.0-0.1	03 Nov 2011 TP-64 1.0-1.1	03 Nov 2011 TP-64 2.0-2.1	03 Nov 2011 TP-65 0.0-0.1	03 Nov 201 ⁻ TP-65 0.5-0.
	0.	ampie Hame	11 04 0.0 0.1	11 04 1.0 1.1	11 04 2.0 2.1	11 00 0.0 0.1	11 00 0.0 0.
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method	: AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	370	1200	840	150	230
pH in soil (1:5) Method: AN101							
рН	pH Units	-	8.3	4.4	4.8	6.0	6.7
Soluble Anions in Soil by Ion Chromatography Me	thod: AN245						
Chloride	mg/kg	0.25	-	-	1200	-	-
Sulphate	mg/kg	0.5	-	-	1.8	-	-
Moisture Content Method: AN234							
% Moisture	%	0.5	12.1	15.0	16.5	14.3	9.8
		ple Number	SE103092.096	SE103092.097	SE103092.098	SE103092.099	SE103092.10
		mple Matrix Sample Date	Soil 03 Nov 2011	Soil 03 Nov 2011	Soil 03 Nov 2011	Soil 03 Nov 2011	Soil 03 Nov 201
		ample Name	TP-65 1.5-1.6	TP-66 0.0-0.1	TP-66 1.0-1.1	TP-66 2.0-2.1	TP-67 0.0-0.
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method	: AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	1400	290	1400	1000	140
				l l		I I	
pH in soil (1:5) Method: AN101							
			10	70			
рН	pH Units	-	4.9	7.3	4.9	5.8	6.8
Soluble Anions in Soil by Ion Chromatography Me	thod: AN245						
Chloride	mg/kg	0.25	1500	-	-	1300	-
Sulphate	mg/kg	0.5	230	-	-	390	-
	, , ,			1		i	
Moisture Content Method: AN234							
% Moisture	%	0.5	18.5	7.1	17.0	14.1	10.7

Page 9 of 12 17-November-2011



% Moisture

ANALYTICAL REPORT

SE103092 R0

	Sa S	ple Number mple Matrix sample Date imple Name	SE103092.101 Soil 03 Nov 2011 TP-67 0.5-0.6	SE103092.102 Soil 03 Nov 2011 TP-67 1.5-1.6	SE103092.103 Soil 03 Nov 2011 TP-68 0.0-0.1	SE103092.104 Soil 03 Nov 2011 TP-68 1.0-1.1	SE103092.105 Soil 03 Nov 2011 TP-68 2.0-2.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	420	680	44	660	730
pH in soil (1:5) Method: AN101							
pH	pH Units	-	5.2	6.7	6.0	4.8	5.0
Soluble Anions in Soil by Ion Chromatography Meth	nod: AN245						
Chloride	mg/kg	0.25	210	-	-	540	-
Sulphate	mg/kg	0.5	420	-	-	270	-
Moisture Content Method: AN234 % Moisture	%	0.5	18.9	16.2	13.3	19.2	12.1
Parameter	Sa S	ple Number mple Matrix sample Date imple Name LOR	SE103092.106 Soil 03 Nov 2011 TP-69 0.0-0.1	SE103092.107 Soil 03 Nov 2011 TP-69 0.5-0.6	SE103092.108 Soil 03 Nov 2011 TP-69 1.5-1.6		
Conductivity and TDS by Calculation - Soil Method:		LOIL				•	
Conductivity (1:5 dry sample basis)	μS/cm	1	18	210	890		
pH in soil (1:5) Method: AN101							
pH	pH Units	-	6.0	5.1	4.8		
	nod: AN245	0.05			000		
Chloride	mg/kg	0.25	-	-	930		
Sulphate	mg/kg	0.5	<u> </u>	-	330		
Moisture Content Method: AN234						1	
		1		I .	1	I .	

7.2

19.7

22.8

Page 10 of 12 17-November-2011



QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: the absolute difference of the two results divided by the average of the two results as a percentage. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106

Parameter	QC Reference	Units	LOR	МВ	DUP %RPD	LCS %Recovery
Conductivity (1:5 dry sample basis)	LB008328	μS/cm	1	<1	6 - 7%	NA
1	LB008330	μS/cm	1	<1	2 - 5%	NA
1	LB008331	μS/cm	1	<1	0 - 1%	NA
1	LB008333	μS/cm	1	<1	2 - 3%	NA
l .	LB008335	μS/cm	1	<1	0 - 9%	NA
	LB008338	μS/cm	1	<1	3%	NA

Moisture Content Method: ME-(AU)-[ENV]AN234

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB008334	%	0.5	10 - 20%
l	LB008336	%	0.5	5 - 6%
l	LB008337	%	0.5	2 - 4%
l	LB008339	%	0.5	1 - 2%
	LB008340	%	0.5	1 - 9%

pH in soil (1:5) Method: ME-(AU)-[ENV]AN101

Parameter	QC Reference	Units	LOR	DUP %RPD	LCS %Recovery
pH	LB008341	pH Units	-	0 - 1%	99%
	LB008342	pH Units	-	1%	99%
	LB008343	pH Units	-	0 - 1%	99%
	LB008344	pH Units	-	0 - 1%	99%
	LB008345	pH Units	-	1 - 3%	99%
	LB008346	pH Units	-	0%	99%

Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245

Parameter	QC	Units	LOR	МВ	DUP %RPD	LCS
	Reference					%Recovery
Chloride	LB008423	mg/kg	0.25	<0.25	5%	102 - 103%
1	LB008424	mg/kg	0.25	<0.25	7%	103%
Sulphate	LB008423	mg/kg	0.5	<0.5	13%	102 - 104%
	LB008424	mg/kg	0.5	<0.5	31%	102%

Page 11 of 12 17-November-2011

SE103092 R0



METHOD SUMMARY

METHOD

METHODOLOGY SUMMARY

AN101

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as μ mhos/cm or μ S/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2520 B.

AN234

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN245

Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO2, NO3 and SO4 are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B

EOOTNOTES

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

This analysis is not covered by the scope of accreditation.

Performed by outside laboratory.

LOR Limit of Reporting

↑↓ Raised or Lowered Limit of Reporting

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QFH QC result is above the upper tolerance
QFL QC result is below the lower tolerance
The sample was not analysed for this analyte

NVL Not Validated

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-09.pdf

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Page 12 of 12 17-November-2011



STATEMENT OF QA/QC PERFORMANCE AGAINST DATA QUALITY OBJECTIVES

SE103092 R0

CLIENT DETAILS _____ LABORATORY DETAILS

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 Project
 12576/1 - Marsden Park Precinct
 SGS Reference
 SE103092 R0

 Order Number
 +
 Report Number
 0000012054

 Samples
 108
 Date Reported
 18 Nov 2011

COMMENTS

All the laboratory data for each environmental matrix was compared to the SGS Environmental Services' stated data quality objectives (DQO).

Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the chain of custody document and was supplied by the client.

This QA/QC statement must be read in conjunction with the referenced analytical report.

The statement and the analytical report must not be reproduced except in full.

All Data Quality Objectives were met.

SAMPLE SUMMARY

Sample counts by matrix
Date documentation received
Samples received without headspace
Sample container provider
Samples received in correct containers
Sample cooling method
Complete documentation received

108 Soils 7/11/11@1:42pm Yes Client Yes None Yes Type of documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Sufficient sample for analysis Samples clearly labelled COC Yes 20°C Standard Yes Yes

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HOLDING TIMES -

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Conductivity and TDS by C	alculation - Soil Method: ME-(AU	D TENDONIANA	_					
ΓP-3 0.0-0.1	SE103092.001	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
TP-3 0.5-0.6	SE103092.002	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
TP-3 1.5-1.6	SE103092.003	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
ΓP-17 0.0-0.1	SE103092.004	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
TP-17 1.0-1.1	SE103092.005	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
TP-17 2.0-2.1	SE103092.006	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
TP-20 0.0-0.1	SE103092.007	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
P-20 0.5-0.6	SE103092.008	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
P-20 1.5-1.6	SE103092.009	LB008328	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011	07 Nov 2011
TP-37 0.0-0.1	SE103092.010	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 2011
P-37 1.0-1.1	SE103092.011	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 2011
P-37 2.0-2.1	SE103092.012	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 2011
P-38 0.0-0.1	SE103092.013	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 2011
P-38 0.5-0.6	SE103092.014	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 201
P-38 1.5-1.6	SE103092.015	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 201
P-39 0.0-0.1	SE103092.016	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 201
P-39 1.0-1.1	SE103092.017	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 2011
P-39 2.0-2.1	SE103092.018	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 201
P-40 0.0-0.1	SE103092.019	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 201
P-40 0.5-0.6	SE103092.020	LB008328	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	08 Nov 2011	07 Nov 201
P-40 1.5-1.6	SE103092.021	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-41 0.0-0.1	SE103092.022	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-41 1.0-1.1	SE103092.023	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-41 2.0-2.1	SE103092.024	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-42 0.0-0.1	SE103092.025	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-42 0.5-0.6	SE103092.026	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-42 1.5-1.6	SE103092.027	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-43 0.0-0.1	SE103092.028	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-43 1.0-1.1	SE103092.029	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-43 2.0-2.1	SE103092.030	LB008330						
P-44 0.0-0.1			01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-44 0.5-0.6	SE103092.031	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
	SE103092.032	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-44 1.5-1.6	SE103092.033	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-45 0.0-0.1	SE103092.034	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-45 1.0-1.1	SE103092.035	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-45 2.0-2.1	SE103092.036	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-46 0.0-0.1	SE103092.037	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-46 0.5-0.6	SE103092.038	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-46 1.5-1.6	SE103092.039	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-47 0.0-0.1	SE103092.040	LB008330	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-47 1.0-1.1	SE103092.041	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-47 2.0-2.1	SE103092.042	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-48 0.0-0.1	SE103092.043	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-48 0.5-0.6	SE103092.044	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-48 1.0-1.1	SE103092.045	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-49 0.0-0.1	SE103092.046	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-49 1.0-1.1	SE103092.047	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-49 2.0-2.1	SE103092.048	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201
P-50 0.0-0.1	SE103092.049	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
P-50 0.5-0.6	SE103092.050	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 201

18/11/2011 Page 2 of 21



HOLDING TIMES

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TD 50 4 5 4 6	SE402002.0E4	I D000224	04 Nov. 2044	04 Nov. 2044	00 Nov. 2044	00 Nov. 2044	00 Nov. 2044	00 Nov. 2011
TP-50 1.5-1.6 TP-51 0.0-0.1	SE103092.051	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
	SE103092.052	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
TP-51 1.0-1.1	SE103092.053	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
TP-51 2.0-2.1	SE103092.054	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
TP-52 0.0-0.1	SE103092.055	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
TP-52 0.5-0.6	SE103092.056	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
TP-52 1.5-1.6	SE103092.057	LB008331	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011	08 Nov 2011
TP-53 0.0-0.1	SE103092.058	LB008331	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-53 1.0-1.1	SE103092.059	LB008331	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-53 2.0-2.1	SE103092.060	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-54 0.0-0.1	SE103092.061	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-54 0.5-0.6	SE103092.062	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-54 1.5-1.6	SE103092.063	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-55 0.0-0.1	SE103092.064	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-55 1.0-1.1	SE103092.065	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-55 2.0-2.1	SE103092.066	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-56 0.0-0.1	SE103092.067	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-56 0.5-0.6	SE103092.068	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-56 1.5-1.6	SE103092.069	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	07 Nov 2011
TP-57 0.0-0.1	SE103092.070	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-57 1.0-1.1	SE103092.071	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-57 2.0-2.1	SE103092.072	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-58 0.0-0.1	SE103092.073	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-58 0.5-0.6	SE103092.074	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-58 1.5-1.6	SE103092.075	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-59 0.0-0.1	SE103092.076	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-59 1.0-1.1	SE103092.077	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-59 2.0-2.1	SE103092.078	LB008333	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	09 Nov 2011	08 Nov 2011
TP-60 0.0-0.1	SE103092.079	LB008333	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-60 0.5-0.6	SE103092.080	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-60 1.0-1.1	SE103092.081	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-61 0.0-0.1	SE103092.082	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-61 1.0-1.1	SE103092.083	LB008335		04 Nov 2011				
TP-61 2.0-2.1	SE103092.084	LB008335	03 Nov 2011 03 Nov 2011		10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
				04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-62 0.0-0.1	SE103092.085	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-62 0.5-0.6	SE103092.086	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-62 1.5-1.6	SE103092.087	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-63 0.0-0.1	SE103092.088	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-63 0.5-0.6	SE103092.089	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-63 1.0-1.1	SE103092.090	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-64 0.0-0.1	SE103092.091	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-64 1.0-1.1	SE103092.092	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-64 2.0-2.1	SE103092.093	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-65 0.0-0.1	SE103092.094	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-65 0.5-0.6	SE103092.095	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-65 1.5-1.6	SE103092.096	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-66 0.0-0.1	SE103092.097	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-66 1.0-1.1	SE103092.098	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-66 2.0-2.1	SE103092.099	LB008335	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-67 0.0-0.1	SE103092.100	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011

18/11/2011 Page 3 of 21



HOLDING TIMES -

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Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP-67 1.5-1.6	SE103092.102	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-68 0.0-0.1	SE103092.103	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-68 1.0-1.1	SE103092.104	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-68 2.0-2.1	SE103092.105	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-69 0.0-0.1	SE103092.106	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-69 0.5-0.6	SE103092.107	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-69 1.5-1.6	SE103092.108	LB008338	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011

18/11/2011 Page 4 of 21



HOLDING TIMES -

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The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Moisture Content Method:	: ME-(AU)-[ENV]AN234		_					
ГР-3 0.0-0.1	SE103092.001	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-3 0.5-0.6	SE103092.002	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-3 1.5-1.6	SE103092.003	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-17 0.0-0.1	SE103092.004	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ΓP-17 1.0-1.1	SE103092.005	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ΓP-17 2.0-2.1	SE103092.006	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ГР-20 0.0-0.1	SE103092.007	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ΓP-20 0.5-0.6	SE103092.008	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ΓP-20 1.5-1.6	SE103092.009	LB008334	31 Oct 2011	04 Nov 2011	14 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ΓP-37 0.0-0.1	SE103092.010	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ГР-37 1.0-1.1	SE103092.011	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
ΓP-37 2.0-2.1	SE103092.012	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-38 0.0-0.1	SE103092.013	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-38 0.5-0.6	SE103092.014	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-38 1.5-1.6	SE103092.015	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-39 0.0-0.1	SE103092.016	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-39 1.0-1.1	SE103092.017	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-39 2.0-2.1	SE103092.018	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
TP-40 0.0-0.1	SE103092.019	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
P-40 0.5-0.6	SE103092.020	LB008334	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	09 Nov 2011
P-40 1.5-1.6	SE103092.021	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-41 0.0-0.1	SE103092.022	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-41 1.0-1.1	SE103092.023	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-41 2.0-2.1	SE103092.024	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-42 0.0-0.1	SE103092.025	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-42 0.5-0.6	SE103092.026	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-42 1.5-1.6	SE103092.027	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-43 0.0-0.1	SE103092.027	LB008336						
FP-43 1.0-1.1	SE103092.029	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
			01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-43 2.0-2.1	SE103092.030	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
ΓP-44 0.0-0.1	SE103092.031	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-44 0.5-0.6	SE103092.032	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-44 1.5-1.6	SE103092.033	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-45 0.0-0.1	SE103092.034	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-45 1.0-1.1	SE103092.035	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-45 2.0-2.1	SE103092.036	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
'P-46 0.0-0.1	SE103092.037	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-46 0.5-0.6	SE103092.038	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-46 1.5-1.6	SE103092.039	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-47 0.0-0.1	SE103092.040	LB008336	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-47 1.0-1.1	SE103092.041	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-47 2.0-2.1	SE103092.042	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-48 0.0-0.1	SE103092.043	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
P-48 0.5-0.6	SE103092.044	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-48 1.0-1.1	SE103092.045	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-49 0.0-0.1	SE103092.046	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
ΓP-49 1.0-1.1	SE103092.047	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
ΓP-49 2.0-2.1	SE103092.048	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
ΓP-50 0.0-0.1	SE103092.049	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
ΓP-50 0.5-0.6	SE103092.050	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011

18/11/2011 Page 5 of 21



HOLDING TIMES

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Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP-50 1.5-1.6	SE103092.051	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-51 0.0-0.1	SE103092.052	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-51 1.0-1.1	SE103092.053	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-51 2.0-2.1	SE103092.054	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-52 0.0-0.1	SE103092.055	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-52 0.5-0.6	SE103092.056	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-52 1.5-1.6	SE103092.057	LB008337	01 Nov 2011	04 Nov 2011	15 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-53 0.0-0.1	SE103092.058	LB008337	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-53 1.0-1.1	SE103092.059	LB008337	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-53 2.0-2.1	SE103092.060	LB008337	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-54 0.0-0.1	SE103092.061	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-54 0.5-0.6	SE103092.062	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-54 1.5-1.6	SE103092.063	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-55 0.0-0.1	SE103092.064	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-55 1.0-1.1	SE103092.065	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-55 2.0-2.1	SE103092.066	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-56 0.0-0.1	SE103092.067	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-56 0.5-0.6	SE103092.068	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-56 1.5-1.6	SE103092.069	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-57 0.0-0.1	SE103092.070	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-57 1.0-1.1	SE103092.071	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-57 2.0-2.1	SE103092.072	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-58 0.0-0.1	SE103092.073	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-58 0.5-0.6	SE103092.074	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-58 1.5-1.6	SE103092.075	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-59 0.0-0.1	SE103092.076	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-59 1.0-1.1	SE103092.077	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-59 2.0-2.1	SE103092.078	LB008339	02 Nov 2011	04 Nov 2011	16 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-60 0.0-0.1	SE103092.079	LB008339	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-60 0.5-0.6	SE103092.080	LB008339	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-60 1.0-1.1	SE103092.081	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-61 0.0-0.1	SE103092.082	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-61 1.0-1.1	SE103092.083	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-61 2.0-2.1	SE103092.084	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-62 0.0-0.1	SE103092.085	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-62 0.5-0.6	SE103092.086	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-62 1.5-1.6	SE103092.087	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-63 0.0-0.1	SE103092.088	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-63 0.5-0.6	SE103092.089	LB008340	03 Nov 2011	04 Nov 2011		08 Nov 2011	13 Nov 2011	
TP-63 1.0-1.1	SE103092.090	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
	SE103092.091	LB008340			17 Nov 2011			10 Nov 2011
TP-64 0.0-0.1 TP-64 1.0-1.1	SE103092.091	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-64 2.0-2.1	SE103092.092 SE103092.093		03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
		LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-65 0.0-0.1 TP-65 0.5-0.6	SE103092.094	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
	SE103092.095	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-65 1.5-1.6	SE103092.096	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-66 0.0-0.1	SE103092.097	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-66 1.0-1.1	SE103092.098	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-66 2.0-2.1	SE103092.099	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-67 0.0-0.1	SE103092.100	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-67 0.5-0.6	SE103092.101	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011

18/11/2011 Page 6 of 21





HOLDING TIMES -

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Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
			_					1
TP-67 1.5-1.6	SE103092.102	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-68 0.0-0.1	SE103092.103	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-68 1.0-1.1	SE103092.104	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-68 2.0-2.1	SE103092.105	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-69 0.0-0.1	SE103092.106	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-69 0.5-0.6	SE103092.107	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011
TP-69 1.5-1.6	SE103092.108	LB008340	03 Nov 2011	04 Nov 2011	17 Nov 2011	08 Nov 2011	13 Nov 2011	10 Nov 2011

18/11/2011 Page 7 of 21



HOLDING TIMES -

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Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
pH in soil (1:5) Method: M	IE-(AU)-[ENV]AN101							
TP-3 0.0-0.1	SE103092.001	LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
ΓP-3 0.5-0.6	SE103092.002	LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
TP-3 1.5-1.6	SE103092.003	LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-17 0.0-0.1	SE103092.003	LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
ΓP-17 1.0-1.1	SE103092.005	LB008341			07 Nov 2011			
P-17 2.0-2.1	SE103092.005	LB008341	31 Oct 2011	04 Nov 2011		07 Nov 2011	09 Nov 2011	07 Nov 201
		LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
TP-20 0.0-0.1	SE103092.007		31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-20 0.5-0.6 P-20 1.5-1.6	SE103092.008	LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
	SE103092.009	LB008341	31 Oct 2011	04 Nov 2011	07 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-37 0.0-0.1	SE103092.010	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-37 1.0-1.1	SE103092.011	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-37 2.0-2.1	SE103092.012	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-38 0.0-0.1	SE103092.013	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-38 0.5-0.6	SE103092.014	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-38 1.5-1.6	SE103092.015	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-39 0.0-0.1	SE103092.016	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-39 1.0-1.1	SE103092.017	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-39 2.0-2.1	SE103092.018	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-40 0.0-0.1	SE103092.019	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 201
P-40 0.5-0.6	SE103092.020	LB008341	01 Nov 2011	04 Nov 2011	08 Nov 2011	07 Nov 2011	09 Nov 2011	07 Nov 20
P-40 1.5-1.6	SE103092.021	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-41 0.0-0.1	SE103092.022	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-41 1.0-1.1	SE103092.023	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-41 2.0-2.1	SE103092.024	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-42 0.0-0.1	SE103092.025	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-42 0.5-0.6	SE103092.026	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-42 1.5-1.6	SE103092.027	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-43 0.0-0.1	SE103092.028	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-43 1.0-1.1	SE103092.029	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-43 2.0-2.1	SE103092.030	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-44 0.0-0.1	SE103092.031	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-44 0.5-0.6	SE103092.032	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-44 1.5-1.6	SE103092.033	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-45 0.0-0.1	SE103092.034	LB008342	01 Nov 2011				10 Nov 2011	
P-45 1.0-1.1	SE103092.035	LB008342		04 Nov 2011	08 Nov 2011	08 Nov 2011		08 Nov 201
P-45 2.0-2.1		LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
	SE103092.036		01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-46 0.0-0.1	SE103092.037	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-46 0.5-0.6	SE103092.038	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-46 1.5-1.6	SE103092.039	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-47 0.0-0.1	SE103092.040	LB008342	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-47 1.0-1.1	SE103092.041	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-47 2.0-2.1	SE103092.042	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-48 0.0-0.1	SE103092.043	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-48 0.5-0.6	SE103092.044	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-48 1.0-1.1	SE103092.045	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 20
P-49 0.0-0.1	SE103092.046	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-49 1.0-1.1	SE103092.047	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-49 2.0-2.1	SE103092.048	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-50 0.0-0.1	SE103092.049	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201
P-50 0.5-0.6	SE103092.050	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 201

18/11/2011 Page 8 of 21



HOLDING TIMES

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Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP-50 1.5-1.6	SE103092.051	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-51 0.0-0.1	SE103092.052	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-51 1.0-1.1	SE103092.053	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-51 2.0-2.1	SE103092.054	LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-52 0.0-0.1	SE103092.055	LB008343						
TP-52 0.5-0.6	SE103092.056	LB008343	01 Nov 2011 01 Nov 2011	04 Nov 2011	08 Nov 2011 08 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-52 0.5-0.6	SE103092.057	LB008343		04 Nov 2011 04 Nov 2011		08 Nov 2011	10 Nov 2011 10 Nov 2011	08 Nov 2011
TP-53 0.0-0.1		LB008343	01 Nov 2011	04 Nov 2011	08 Nov 2011	08 Nov 2011		08 Nov 2011
TP-53 1.0-1.1	SE103092.058 SE103092.059	LB008343	02 Nov 2011		09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
			02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-53 2.0-2.1	SE103092.060	LB008343	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-54 0.0-0.1	SE103092.061	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-54 0.5-0.6	SE103092.062	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-54 1.5-1.6	SE103092.063	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-55 0.0-0.1	SE103092.064	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-55 1.0-1.1	SE103092.065	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-55 2.0-2.1	SE103092.066	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-56 0.0-0.1	SE103092.067	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-56 0.5-0.6	SE103092.068	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-56 1.5-1.6	SE103092.069	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-57 0.0-0.1	SE103092.070	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-57 1.0-1.1	SE103092.071	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-57 2.0-2.1	SE103092.072	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-58 0.0-0.1	SE103092.073	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-58 0.5-0.6	SE103092.074	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-58 1.5-1.6	SE103092.075	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-59 0.0-0.1	SE103092.076	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-59 1.0-1.1	SE103092.077	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-59 2.0-2.1	SE103092.078	LB008344	02 Nov 2011	04 Nov 2011	09 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-60 0.0-0.1	SE103092.079	LB008344	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-60 0.5-0.6	SE103092.080	LB008344	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-60 1.0-1.1	SE103092.081	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-61 0.0-0.1	SE103092.082	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-61 1.0-1.1	SE103092.083	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-61 2.0-2.1	SE103092.084	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-62 0.0-0.1	SE103092.085	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-62 0.5-0.6	SE103092.086	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-62 1.5-1.6	SE103092.087	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-63 0.0-0.1	SE103092.088	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-63 0.5-0.6	SE103092.089	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-63 1.0-1.1	SE103092.090	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-64 0.0-0.1	SE103092.091	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-64 1.0-1.1	SE103092.092	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-64 2.0-2.1	SE103092.093	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-65 0.0-0.1	SE103092.094	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-65 0.5-0.6	SE103092.095	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-65 1.5-1.6	SE103092.096	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-66 0.0-0.1	SE103092.097	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-66 1.0-1.1	SE103092.098	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-66 2.0-2.1	SE103092.099	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-67 0.0-0.1	SE103092.100	LB008345	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-67 0.5-0.6	SE103092.100	LB008346						
57 0.0-0.0	GE 103032.101		03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011

18/11/2011 Page 9 of 21



HOLDING TIMES -

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP-67 1.5-1.6	SE103092.102	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-68 0.0-0.1	SE103092.103	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-68 1.0-1.1	SE103092.104	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-68 2.0-2.1	SE103092.105	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-69 0.0-0.1	SE103092.106	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-69 0.5-0.6	SE103092.107	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011
TP-69 1.5-1.6	SE103092.108	LB008346	03 Nov 2011	04 Nov 2011	10 Nov 2011	08 Nov 2011	10 Nov 2011	08 Nov 2011

18/11/2011 Page 10 of 21



HOLDING TIMES -

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Soluble Anions in Soil by k	on Chromatography Method: ME	:-(AU)-[ENV]AN24	15					
TP-3 0.0-0.1	SE103092.001	LB008423	31 Oct 2011	04 Nov 2011	28 Nov 2011	09 Nov 2011	28 Nov 2011	16 Nov 2011
ΓP-17 1.0-1.1	SE103092.005	LB008423	31 Oct 2011	04 Nov 2011	28 Nov 2011	09 Nov 2011	28 Nov 2011	16 Nov 2011
ГР-20 0.5-0.6	SE103092.008	LB008423	31 Oct 2011	04 Nov 2011	28 Nov 2011	09 Nov 2011	28 Nov 2011	16 Nov 2011
ΓP-37 2.0-2.1	SE103092.012	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
ΓP-38 0.5-0.6	SE103092.014	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
ΓP-39 1.0-1.1	SE103092.017	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
ΓP-40 1.5-1.6	SE103092.021	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
ΓP-41 2.0-2.1	SE103092.024	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
ΓP-42 0.0-0.1	SE103092.025	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
TP-43 1.0-1.1	SE103092.029	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
ΓP-44 0.5-0.6	SE103092.032	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
TP-45 2.0-2.1	SE103092.036	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
TP-46 1.5-1.6	SE103092.039	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
P-47 2.0-2.1	SE103092.042	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
P-48 1.0-1.1	SE103092.045	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
P-49 0.0-0.1	SE103092.046	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
TP-50 1.5-1.6	SE103092.051	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
P-51 1.0-1.1	SE103092.053	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
P-52 1.5-1.6	SE103092.057	LB008423	01 Nov 2011	04 Nov 2011	29 Nov 2011	09 Nov 2011	29 Nov 2011	16 Nov 2011
TP-53 1.0-1.1	SE103092.059	LB008423	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
ΓP-54 0.5-0.6	SE103092.062	LB008424	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
P-55 0.0-0.1	SE103092.064	LB008424	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
TP-56 1.5-1.6	SE103092.069	LB008424	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
TP-57 2.0-2.1	SE103092.072	LB008424	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
P-58 0.0-0.1	SE103092.073	LB008424	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
TP-59 1.0-1.1	SE103092.077	LB008424	02 Nov 2011	04 Nov 2011	30 Nov 2011	09 Nov 2011	30 Nov 2011	16 Nov 2011
P-60 0.5-0.6	SE103092.080	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
TP-61 2.0-2.1	SE103092.084	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
P-62 0.5-0.6	SE103092.086	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
P-63 1.0-1.1	SE103092.090	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
P-64 2.0-2.1	SE103092.093	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
P-65 1.5-1.6	SE103092.096	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
TP-66 2.0-2.1	SE103092.099	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
P-67 0.5-0.6	SE103092.101	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
ΓP-68 1.0-1.1	SE103092.104	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011
ΓP-69 1.5-1.6	SE103092.108	LB008424	03 Nov 2011	04 Nov 2011	01 Dec 2011	09 Nov 2011	01 Dec 2011	16 Nov 2011

18/11/2011 Page 11 of 21





Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

No Surrogates were required for this job.

18/11/2011 Page 12 of 21





Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, which is typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

Parameter	Units	Control LOR	BLK MB
Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245 LB008423.001			
Chloride	mg/kg	0.25	<0.25
Sulphate	mg/kg	0.5	<0.5
LB008423.025			
Chloride	mg/kg	0.25	<0.25
Sulphate	mg/kg	0.5	<0.5
LB008424.001			
Chloride	mg/kg	0.25	<0.25
Sulphate	mg/kg	0.5	<0.5

18/11/2011 Page 13 of 21

SE103092.001-DUP



Conductivity (1:5 dry sample basis)

DUPLICATES

Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Sample Name

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Sample Name			SE103092.001-DUP			
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008328.004							
Conductivity (1:5 dry sample basis)	μS/cm	1	32	30	33	7	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008341.003							
рН	pH Units	-	6.0	6.0	32	0	
Soluble Anions in Soil by ion Chromatography Method: ME-(AU)-[ENV]AN245 LB008423.004							
Chloride	mg/kg	0.25	13	12	32	5	
Sulphate	mg/kg	0.5	8.6	7.6	36	13	
	Sa	ample Name		SE10309	2.010-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Molesture Content Method: ME-(AU)-[ENV]AN234 LB008334.011							
% Moisture	%	0.5	7.5	8.3	36	10	
	Sample Name			SE10309	2.013-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008328.018							
Conductivity (1:5 dry sample basis)	μS/cm	1	22	21	35	6	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008341.016							
pH	pH Units	-	5.5	5.5	32	1	
	S	ample Name		SE10309	2.020-DUP		
Boromotor	Units	LOR	Original Beaut		Criteria %	RPD %	
Parameter Moisture Content Method: ME-(AU)-[ENV]AN234 LB008334.022	— Onits	— EOR	Original Result	Duplicate Result	—— Chtella /6	KPD /6	
% Moisture	%	0.5	13.5	11.0	34	20	
		amala Nam		CF40000	2 022 DUB		
	Sa	ample Name		SE10309	2.022-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008330.005							

18/11/2011 Page 14 of 21

38

33

5



DUPLICATES

Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Sa	ample Name		SE1030	92.022-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101							
LB008342.004							
pH	pH Units	-	6.2	6.1	32	1	
						1	
	Sa	ample Name		SE1030	92.030-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Moisture Content Method: ME-(AU)-[ENV]AN234							
LB008336.011							
% Moisture	%	0.5	19.4	20.3	33	5	
				1		1	
	Sa	Sample Name			92.031-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106							
LB008330.016							
Conductivity (1:5 dry sample basis)	μS/cm	1	47	46	32	2	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101							
LB008342.014							
рН	pH Units	-	6.2	6.3	32	1	
				97402002 040 DUD			
	Si	ample Name		SE103092.040-DUP			
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Moisture Content Method: ME-(AU)-[ENV]AN234							
LB008336.022							
% Moisture	%	0.5	12.5	13.2	34	6	
	Sa	ample Name		SE1030	92.044-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008331.007							
Conductivity (1:5 dry sample basis)	μS/cm	1	140	140	31	1	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008343.006							
рН	pH Units	-	5.1	5.0	32	1	

18/11/2011 Page 15 of 21

SE103092 053-DUP



DUPLICATES

Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Sample Name			SE10309		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Moisture Content Method: ME-(AU)-[ENV]AN234 LB008337.011						
% Moisture	%	0.5	16.9	16.2	33	4

	Sample Name			OL 1000	JZ.033-D01	
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008331.018						
Conductivity (1:5 dry sample basis)	μS/cm	1	520	520	30	0
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008343.017						
рН	pH Units	-	9.5	9.5	31	0

	Sample Name			SE10309		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Moisture Content Method: ME-(AU)-[ENV]AN234 LB008337.022						
% Moisture	%	0.5	18.5	18.9	33	2

	Sample Name SE103092.061-DUP					
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008333.005						
Conductivity (1:5 dry sample basis)	μS/cm	1	72	74	31	3
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008344.003						
pH	pH Units	-	6.5	6.5	32	1

	Sample Name			SE10309		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245 LB008424.005						
Chloride	mg/kg	0.25	560	560	30	2
Sulphate	mg/kg	0.5	190	190	30	2

18/11/2011 Page 16 of 21



DUPLICATES

Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	S	ample Name		SE10309	2.070-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Moisture Content Method: ME-(AU)-[ENV]AN234							
LB008339.011 % Moisture	%	0.5	10.9	10.9	35	1	
o wosture	76						
	S	ample Name		SE103092.073-DUP			
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008333.019							
Conductivity (1:5 dry sample basis)	μS/cm	1	180	180	31	2	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008344.017							
Н	pH Units	-	6.8	6.7	31	0	
	Sample Name			SE10309	2.080-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Molsture Content Method: ME-(AU)-[ENV]AN234 LB008339.022							
% Moisture	%	0.5	16.0	16.2	33	2	
	S	ample Name		SE10309			
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
	Units	LUK	Original Result	Duplicate Result	Griteria %	KPD %	
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 B008335.006							
Conductivity (1:5 dry sample basis)	μS/cm	1	54	49	32	9	
DH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008345.004							
Н	pH Units	-	6.2	6.1	32	1	
	Sample Name			SE103092.090-DUP			
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %	
Moisture Content Method: ME-(AU)-[ENV]AN234 LB008340.011							
6 Moisture	%	0.5	12.5	11.5	34	9	

18/11/2011 Page 17 of 21



DUPLICATES

Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Sample Name			SE10309	92.097-DUP	
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008335.024			-			
Conductivity (1:5 dry sample basis)	μS/cm	1	290	290	30	0
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008345.022						
рН	pH Units	-	7.3	7.6	31	3
	•	I- N		054000	20 400 DUD	
	8	ample Name		SE10309	92.100-DUP	
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Moisture Content Method: ME-(AU)-[ENV]AN234 LB008340.022						
% Moisture	%	0.5	10.7	11.4	35	6
	S	ample Name		SE103092.106-DUP		
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008338.010						
Conductivity (1:5 dry sample basis)	μS/cm	1	18	18	36	3
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008346.008						
рН	pH Units	-	6.0	6.0	32	0
	S	ample Name		SE10309	92.108-DUP	
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Moisture Content Method: ME-(AU)-[ENV]AN234 LB008340.031						
% Moisture	%	0.5	22.8	22.5	32	1

18/11/2011 Page 18 of 21



LABORATORY CONTROL STANDARDS

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of the report.

Recovery is shown in Green when within suggested criteria or **Bold** with an appended dagger symbol and Red† when outside suggested criteria.

	Cont	Control			LCS STD		
Parameter	Units	LOR	Result	Expected Result	Criteria %	Recovery %	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008341.001							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008341.019							
pH	pH Units	-	7.4	7.41	98 - 102	100	
LB008342.001							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008342.019							
pH	pH Units	-	7.4	7.41	98 - 102	99	
LB008343.001	,						
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008343.020							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008344.001							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008344.020							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008345.001							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008345.020							
рН	pH Units	-	7.4	7.41	98 - 102	99	
LB008346.001							
pH	pH Units	-	7.4	7.41	98 - 102	99	
Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]A LB008423.002	N245						
Chloride	mg/kg	0.25	100	100	70 - 130	103	
Sulphate	mg/kg	0.5	100	100	70 - 130	104	
LB008423.026							
Chloride	mg/kg	0.25	100	100	70 - 130	102	
Sulphate	mg/kg	0.5	100	100	70 - 130	102	
LB008424.002							
Chloride	mg/kg	0.25	100	100	70 - 130	103	
Sulphate	mg/kg	0.5	100	100	70 - 130	102	

18/11/2011 Page 19 of 21





QUALITY CONTROL - MATRIX SPIKES

Matrix spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of the report. Recovery is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

No Matrix Spikes were required for this job.

18/11/2011 Page 20 of 21







Matrix spike duplicates are calculated as relative percent difference using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean The original result is the analyte concentration of the matrix spike and the replicate result is the analyte concentration of the matrix spike duplicate. The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability RPD is shown in Green when within suggested criteria or **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria.

No Matrix Spike Duplicates were required for this job.

FOOTNOTES _

IS Insufficient sample for analysis. LNR Sample listed, but not received.

NATA Accreditation does not cover this analysis.

^ Performed by outside laboratory.

LOR Limit of Reporting

Samples analysed as received.
Solid samples expressed on a dry weight basis.

QFH QC result is above the upper tolerance
QFL QC result is below the lower tolerance
NA The sample was not analysed for this analyte

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-09.pdf

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18/11/2011 Page 21 of 21



LABORATORY REPORT COVERSHEET

Date: 17 November 2011

To: Geotechnique Pty Ltd

PO Box 880

PENRITH NSW 2015

Attention: Emged Rizkalla

Your Reference: SE103092 - 12576/1 - Marsden Park Precinct

Laboratory Report No: CE74867

Samples Received: 10/11/2011 Samples / Quantity: 36 Soils

The above samples were received intact and analysed according to your written instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

Jon Dicker

Manager CAIRNS **Shey Goddard**

Speddard

Administration Manager

CAIRNS





PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-1 TP-3 0.0-0.1 Soil 31/10/2011	CE74867-2 TP-17 1.0-1.1 Soil 31/10/2011	CE74867-3 TP-20 0.5-0.6 Soil 31/10/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	24	1,000	920
Sodium (meq%)	meq%	0.10	4.3	4.0
Exchangeable Sodium	%	2	30	46
Potassium, K	mg/kg	90	82	67
Potassium (meq%)	meq%	0.23	0.21	0.17
Exchangeable Potassium	%	5	1	2
Calcium, Ca	mg/kg	660	7	69
Calcium (meq%)	meq%	3.3	0.04	0.35
Exchangeable Calcium	%	68	<1	4
Magnesium, Mg	mg/kg	150	1,200	520
Magnesium (meq%)	meq%	1.2	9.8	4.3
Exchangeable Magnesium	%	25	68	49
CEC	meq%	4.9	14	8.8



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-4 TP-37 2.0-2.1 Soil 1/11/2011	CE74867-5 TP-38 0.5-0.6 Soil 1/11/2011	CE74867-6 TP-39 1.0-1.1 Soil 1/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	870	1,000	35
Sodium (meq%)	meq%	3.8	4.3	0.15
Exchangeable Sodium	%	38	32	1
Potassium, K	mg/kg	78	99	89
Potassium (meq%)	meq%	0.20	0.25	0.23
Exchangeable Potassium	%	2	2	2
Calcium, Ca	mg/kg	100	120	1,300
Calcium (meq%)	meq%	0.50	0.60	6.5
Exchangeable Calcium	%	5	4	64
Magnesium, Mg	mg/kg	680	1,000	400
Magnesium (meq%)	meq%	5.6	8.2	3.3
Exchangeable Magnesium	%	55	61	32
CEC	meq%	10	13	10



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-7 TP-40 1.5-1.6 Soil 1/11/2011	CE74867-8 TP-41 2.0-2.1 Soil 1/11/2011	CE74867-9 TP42 0.0-0.1 Soil 1/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	390	43	65
Sodium (meq%)	meq%	1.7	0.19	0.28
Exchangeable Sodium	%	20	5	2
Potassium, K	mg/kg	87	76	100
Potassium (meq%)	meq%	0.22	0.19	0.26
Exchangeable Potassium	%	3	5	2
Calcium, Ca	mg/kg	550	350	1,400
Calcium (meq%)	meq%	2.7	1.7	7.0
Exchangeable Calcium	%	32	43	60
Magnesium, Mg	mg/kg	470	240	500
Magnesium (meq%)	meq%	3.8	2.0	4.1
Exchangeable Magnesium	%	45	48	35
CEC	meq%	8.5	4.1	12



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-10 TP-43 1.0-1.1 Soil 1/11/2011	CE74867-11 TP-44 0.5-0.6 Soil 1/11/2011	CE74867-12 TP-45 2.0-2.1 Soil 1/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	1,100	1,000	1,100
Sodium (meq%)	meq%	4.8	4.3	4.8
Exchangeable Sodium	%	40	31	43
Potassium, K	mg/kg	140	76	220
Potassium (meq%)	meq%	0.36	0.19	0.56
Exchangeable Potassium	%	3	1	5
Calcium, Ca	mg/kg	66	130	16
Calcium (meq%)	meq%	0.33	0.65	0.08
Exchangeable Calcium	%	3	5	<1
Magnesium, Mg	mg/kg	780	1,100	700
Magnesium (meq%)	meq%	6.4	9.0	5.7
Exchangeable Magnesium	%	54	63	51
CEC	meq%	12	14	11



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-13 TP-46 1.5-1.6 Soil 1/11/2011	CE74867-14 TP-47 2.0-2.1 Soil 1/11/2011	CE74867-15 TP-48 1.0-1.1 Soil 1/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	860	1,200	86
Sodium (meq%)	meq%	3.7	5.2	0.37
Exchangeable Sodium	%	28	33	2
Potassium, K	mg/kg	160	310	140
Potassium (meq%)	meq%	0.41	0.79	0.36
Exchangeable Potassium	%	3	5	2
Calcium, Ca	mg/kg	10	32	2,900
Calcium (meq%)	meq%	0.05	0.16	14
Exchangeable Calcium	%	<1	1	84
Magnesium, Mg	mg/kg	1,100	1,200	250
Magnesium (meq%)	meq%	9.0	9.8	2.0
Exchangeable Magnesium	%	68	61	12
CEC	meq%	13	16	17



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-16 TP-49 0.0-0.1 Soil 1/11/2011	CE74867-17 TP-50 1.5-1.6 Soil 1/11/2011	CE74867-18 TP-51 1.0-1.1 Soil 1/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	40	1,300	830
Sodium (meq%)	meq%	0.17	5.6	3.6
Exchangeable Sodium	%	1	32	14
Potassium, K	mg/kg	310	380	120
Potassium (meq%)	meq%	0.79	0.97	0.31
Exchangeable Potassium	%	6	5	1
Calcium, Ca	mg/kg	1,600	110	3,400
Calcium (meq%)	meq%	8.0	0.55	17
Exchangeable Calcium	%	64	3	65
Magnesium, Mg	mg/kg	430	1,300	640
Magnesium (meq%)	meq%	3.5	11	5.2
Exchangeable Magnesium	%	28	60	20
CEC	meq%	12	18	26



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-19 TP-52 1.5-1.6 Soil 1/11/2011	CE74867-20 TP-53 1.0-1.1 Soil 2/11/2011	CE74867-21 TP-54 0.5-0.6 Soil 2/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	830	500	1,100
Sodium (meq%)	meq%	3.6	2.2	4.8
Exchangeable Sodium	%	12	19	25
Potassium, K	mg/kg	150	120	180
Potassium (meq%)	meq%	0.38	0.31	0.46
Exchangeable Potassium	%	1	3	2
Calcium, Ca	mg/kg	4,500	1,100	680
Calcium (meq%)	meq%	22	5.5	3.4
Exchangeable Calcium	%	74	49	18
Magnesium, Mg	mg/kg	490	400	1,300
Magnesium (meq%)	meq%	4.0	3.3	11
Exchangeable Magnesium	%	13	29	55
CEC	meq%	31	11	19



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-22 TP-55 0.0-0.1 Soil 2/11/2011	CE74867-23 TP-56 1.5-1.6 Soil 2/11/2011	CE74867-24 TP-57 2.0-2.1 Soil 2/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	290	1,300	1,600
Sodium (meq%)	meq%	1.3	5.6	7.0
Exchangeable Sodium	%	8	42	41
Potassium, K	mg/kg	200	260	200
Potassium (meq%)	meq%	0.51	0.66	0.51
Exchangeable Potassium	%	3	5	3
Calcium, Ca	mg/kg	1,600	29	77
Calcium (meq%)	meq%	8.0	0.15	0.39
Exchangeable Calcium	%	50	1	2
Magnesium, Mg	mg/kg	760	860	1,100
Magnesium (meq%)	meq%	6.2	7.0	9.0
Exchangeable Magnesium	%	39	52	53
CEC	meq%	16	14	17



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-25 TP-58 0.0-0.1 Soil 2/11/2011	CE74867-26 TP-59 1.0-1.1 Soil 2/11/2011	CE74867-27 TP-60 0.5-0.6 Soil 3/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	160	990	1,200
Sodium (meq%)	meq%	0.70	4.3	5.2
Exchangeable Sodium	%	5	40	38
Potassium, K	mg/kg	190	97	90
Potassium (meq%)	meq%	0.49	0.25	0.23
Exchangeable Potassium	%	3	2	2
Calcium, Ca	mg/kg	2,100	180	14
Calcium (meq%)	meq%	10	0.90	0.07
Exchangeable Calcium	%	71	8	<1
Magnesium, Mg	mg/kg	390	640	1,000
Magnesium (meq%)	meq%	3.2	5.2	8.2
Exchangeable Magnesium	%	21	49	60
CEC	meq%	15	11	14



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-28 TP-61 2.0-2.1 Soil 3/11/2011	CE74867-29 TP-62 0.5-0.6 Soil 3/11/2011	CE74867-30 TP-63 1.0-1.1 Soil 3/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	910	410	730
Sodium (meq%)	meq%	4.0	1.8	3.2
Exchangeable Sodium	%	37	12	21
Potassium, K	mg/kg	160	130	120
Potassium (meq%)	meq%	0.41	0.33	0.31
Exchangeable Potassium	%	4	2	2
Calcium, Ca	mg/kg	140	810	930
Calcium (meq%)	meq%	0.70	4.0	4.6
Exchangeable Calcium	%	7	27	30
Magnesium, Mg	mg/kg	680	1,100	870
Magnesium (meq%)	meq%	5.6	9.0	7.1
Exchangeable Magnesium	%	52	59	47
CEC	meq%	11	15	15



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-31 TP-64 2.0-2.1 Soil 3/11/2011	CE74867-32 TP-65 1.5-1.6 Soil 3/11/2011	CE74867-33 TP-66 2.0-2.1 Soil 3/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	850	1,200	1,500
Sodium (meq%)	meq%	3.7	5.2	6.5
Exchangeable Sodium	%	31	40	43
Potassium, K	mg/kg	100	57	320
Potassium (meq%)	meq%	0.26	0.15	0.82
Exchangeable Potassium	%	2	1	5
Calcium, Ca	mg/kg	59	110	13
Calcium (meq%)	meq%	0.30	0.55	0.07
Exchangeable Calcium	%	2	4	<1
Magnesium, Mg	mg/kg	930	870	960
Magnesium (meq%)	meq%	7.6	7.1	7.9
Exchangeable Magnesium	%	64	55	52
CEC	meq%	12	13	15



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74867-34 TP-67 0.5-0.6 Soil 3/11/2011	CE74867-35 TP-68 1.0-1.1 Soil 3/11/2011	CE74867-36 TP-69 1.5-1.6 Soil 3/11/2011
Date Extracted		10/11/2011	10/11/2011	10/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	660	2,300	1,100
Sodium (meq%)	meq%	2.9	10	4.8
Exchangeable Sodium	%	13	34	29
Potassium, K	mg/kg	200	240	370
Potassium (meq%)	meq%	0.51	0.61	0.95
Exchangeable Potassium	%	2	2	6
Calcium, Ca	mg/kg	1,300	85	70
Calcium (meq%)	meq%	6.5	0.43	0.35
Exchangeable Calcium	%	30	1	2
Magnesium, Mg	mg/kg	1,400	2,200	1,300
Magnesium (meq%)	meq%	11	18	11
Exchangeable Magnesium	%	54	62	64
CEC	meq%	21	29	17



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

TEST PARAMETERS	UNITS	LOR	METHOD
Date Extracted			
Date Analysed			
Sodium, Na	mg/kg	2	AN122 / AN320 RL15D3
Sodium (meq%)	meq%	0.01	Calculation
Exchangeable Sodium	%	1	Calculation
Potassium, K	mg/kg	2	AN122 / AN320 RL15D3
Potassium (meq%)	meq%	0.01	Calculation
Exchangeable Potassium	%	1	Calculation
Calcium, Ca	mg/kg	2	AN122 / AN320 RL15D3
Calcium (meq%)	meq%	0.01	Calculation
Exchangeable Calcium	%	1	Calculation
Magnesium, Mg	mg/kg	2	AN122 / AN320 RL15D3
Magnesium (meq%)	meq%	0.01	Calculation
Exchangeable Magnesium	%	1	Calculation
CEC	meq%	0.01	AN122 / AN320 RL15D3



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

QUALITY CONTROL	UNITS	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Spike Recovery
				Sample Duplicate		
Date Extracted		10/11/11	CE74867-1	10/11/2011 10/11/2011	Batch Spike	-
Date Analysed		15/11/11	CE74867-1	15/11/2011 15/11/2011	Batch Spike	-
Sodium, Na	mg/kg	<2	CE74867-1	24 22 RPD: 9	Batch Spike	90%
Sodium (meq%)	meq%	-	CE74867-1	0.10 0.10 RPD: 0	Batch Spike	-
Exchangeable Sodium	%	-	CE74867-1	2 2 RPD: 0	Batch Spike	-
Potassium, K	mg/kg	<2	CE74867-1	90 90 RPD: 0	Batch Spike	90%
Potassium (meq%)	meq%	-	CE74867-1	0.23 0.23 RPD: 0	Batch Spike	-
Exchangeable Potassium	%	-	CE74867-1	5 5 RPD: 0	Batch Spike	-
Calcium, Ca	mg/kg	<2	CE74867-1	660 660 RPD: 0	Batch Spike	93%
Calcium (meq%)	meq%	-	CE74867-1	3.3 3.3 RPD: 0	Batch Spike	-
Exchangeable Calcium	%	-	CE74867-1	68 68 RPD: 0	Batch Spike	-
Magnesium, Mg	mg/kg	<2	CE74867-1	150 150 RPD: 0	Batch Spike	91%
Magnesium (meq%)	meq%	-	CE74867-1	1.2 1.2 RPD: 0	Batch Spike	-
Exchangeable Magnesium	%	-	CE74867-1	25 25 RPD: 0	Batch Spike	-
CEC	meq%	-	CE74867-1	4.9 4.9 RPD: 0	Batch Spike	-



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

QUALITY CONTROL	UNITS	Blank	Duplicate Sm#	Duplicate
				Sample Duplicate
Date Extracted		[NT]	CE74867-11	10/11/2011 10/11/2011
Date Analysed		[NT]	CE74867-11	15/11/2011 15/11/2011
Sodium, Na	mg/kg	[NT]	CE74867-11	1000 1000 RPD: 0
Sodium (meq%)	meq%	[NT]	CE74867-11	4.3 4.3 RPD: 0
Exchangeable Sodium	%	[NT]	CE74867-11	31 32 RPD: 3
Potassium, K	mg/kg	[NT]	CE74867-11	76 75 RPD: 1
Potassium (meq%)	meq%	[NT]	CE74867-11	0.19 0.19 RPD: 0
Exchangeable Potassium	%	[NT]	CE74867-11	1 1 RPD: 0
Calcium, Ca	mg/kg	[NT]	CE74867-11	130 130 RPD: 0
Calcium (meq%)	meq%	[NT]	CE74867-11	0.65 0.65 RPD: 0
Exchangeable Calcium	%	[NT]	CE74867-11	5 5 RPD: 0
Magnesium, Mg	mg/kg	[NT]	CE74867-11	1100 1000 RPD: 10
Magnesium (meq%)	meq%	[NT]	CE74867-11	9.0 8.2 RPD: 9
Exchangeable Magnesium	%	[NT]	CE74867-11	63 61 RPD: 3
CEC	meq%	[NT]	CE74867-11	14 13 RPD: 7



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

QUALITY CONTROL	UNITS	Blank	Duplicate Sm#	Duplicate
				Sample Duplicate
Date Extracted		[NT]	CE74867-21	10/11/2011 10/11/2011
Date Analysed		[NT]	CE74867-21	15/11/2011 15/11/2011
Sodium, Na	mg/kg	[NT]	CE74867-21	1100 1100 RPD: 0
Sodium (meq%)	meq%	[NT]	CE74867-21	4.8 4.8 RPD: 0
Exchangeable Sodium	%	[NT]	CE74867-21	25 25 RPD: 0
Potassium, K	mg/kg	[NT]	CE74867-21	180 170 RPD: 6
Potassium (meq%)	meq%	[NT]	CE74867-21	0.46 0.43 RPD: 7
Exchangeable Potassium	%	[NT]	CE74867-21	2 2 RPD: 0
Calcium, Ca	mg/kg	[NT]	CE74867-21	680 680 RPD: 0
Calcium (meq%)	meq%	[NT]	CE74867-21	3.4 3.4 RPD: 0
Exchangeable Calcium	%	[NT]	CE74867-21	18 18 RPD: 0
Magnesium, Mg	mg/kg	[NT]	CE74867-21	1300 1300 RPD: 0
Magnesium (meq%)	meq%	[NT]	CE74867-21	11 11 RPD: 0
Exchangeable Magnesium	%	[NT]	CE74867-21	55 55 RPD: 0
CEC	meq%	[NT]	CE74867-21	19 19 RPD: 0



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

QUALITY CONTROL	UNITS	Blank	Duplicate Sm#	Duplicate
				Sample Duplicate
Date Extracted		[NT]	CE74867-31	10/11/2011 10/11/2011
Date Analysed		[NT]	CE74867-31	15/11/2011 15/11/2011
Sodium, Na	mg/kg	[NT]	CE74867-31	850 840 RPD: 1
Sodium (meq%)	meq%	[NT]	CE74867-31	3.7 3.6 RPD: 3
Exchangeable Sodium	%	[NT]	CE74867-31	31 31 RPD: 0
Potassium, K	mg/kg	[NT]	CE74867-31	100 100 RPD: 0
Potassium (meq%)	meq%	[NT]	CE74867-31	0.26 0.26 RPD: 0
Exchangeable Potassium	%	[NT]	CE74867-31	2 2 RPD: 0
Calcium, Ca	mg/kg	[NT]	CE74867-31	59 60 RPD: 2
Calcium (meq%)	meq%	[NT]	CE74867-31	0.30 0.30 RPD: 0
Exchangeable Calcium	%	[NT]	CE74867-31	2 3 RPD: 40
Magnesium, Mg	mg/kg	[NT]	CE74867-31	930 920 RPD: 1
Magnesium (meq%)	meq%	[NT]	CE74867-31	7.6 7.5 RPD: 1
Exchangeable Magnesium	%	[NT]	CE74867-31	64 64 RPD: 0
CEC	meq%	[NT]	CE74867-31	12 12 RPD: 0



PROJECT: SE103092 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74867

LABORATORY REPORT

NOTES:

LOR - Limit of Reporting.

The significance of all reported results are defined by their analytical limit of reporting.

Analysis Date: Between 10/11/11 and 17/11/11

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Geneva Legal Comment

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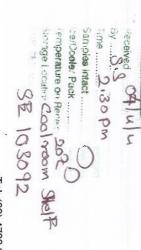
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Unless otherwise stated the results shown in this test report only refer to the sample(s) tested and such sample(s) are only retained for 60 days only. This document cannot be reproduced except in full, without prior approval of the Company.







WP	WG Legend:				12	-	C	9	αp	7	S	V)	4	W	0	-				PH:		10:	Lemko Place PENRITH N
Water sample, plastic bottle	d: Water sample, glass bottle	Emged Rizkalla	Name				TP-37			TP-20			TP-17			TP-3		Location	(400	02 8594 0400 MS ANGELA M	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRONMENTAL SERVICES UNIT 16	Lemko Place PENRITH NSW 2750
plastic bottle	glass bottle	alla			2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0 - 0.1		Depth (m)	Sampling details	AMALICOS	TREET NSW 2015	MENTAL SERV	
				Relin			1/11/2011			31/10/2011			31/10/2011			31/10/2011		Date	ils			ICES	
		FR	Signature	Relinquished by								ANI -					1	Time					PENE
DSG	USG		e		DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP		Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751
Disturbed :	Undisturbe																	Water	e type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		<	~	~	V	~	<	<	~	V	~	~	<	EC			99			Tel: (02) 4722 2700 Fax: (02) 4722 6161 email: info@geotech.com.au
<	DSP	1			<	<	<	<	~	<u> </u>	~	<	<	~	~	<	рH			Project Manager:		Sampling By:	161 tech.com.au
Test required	Disturbed	600	Name		<				~			~				<	Sulphate	Z		lanager:		By:	
ired	Disturbed soil sample (small plastic bag)				<				~			~				<	Chloride	results required by:	0 40	ER		AN	
	(small plas	1	0		<				<			<				<	ESP	quired					
	stic bag)	S. S. S.	Signature	Received by														by.		Location:	Project:	Job No:	
# Geotech	* Purge & Trap	+	e o	ОУ																1	Marsden F	125/6/1	Page
# Geotechnique Screen	Trap	0																		Northwest Growth Centre, Marsden Park	Marsden Park Precinct		_
en	[®] mole H ⁺ /tonne	N N	Date	,																ntre, Marsc	4		o <u>f</u>
	⁺/tonne	2:50			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	SAMPLE			len Park			9

WP.	WG			1	12	23	20	21	8	19	90	17	6	5	14	S				PH:		10:	Lemko Place PENRITH N
Water sample, plastic bottle	Water sample, glass bottle	Emged Rizkalla	Name				TP-41			TP-40			TP-39			TP-38		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRON	Lemko Place PENRITH NSW 2750
plastic bottle	lass bottle	alla			2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1		Depth (m)	Sampling details	AMALICOS	REET NSW 2015	SGS ENVIRONMENTAL SERVICES	
				Relin						1/11/2011			1/11/2011			1/11/2011		Date	S			CES	
		FR	Signature	Relinquished by														Time					PEN
DSG I	USG (œ.		DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP		Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751
Disturbed s	Jndisturbe																	Water	type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass iar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		<	<	~	<	<	V	V	<	<	<	~	4	EC			99			Fax: (02) 4722 6161 email: info@geotech.com.au
<	DSP	Se			<	<	<	<	<	<	~	<	<	<	<	<	₽			Project Manager:		Sampling By:	l61 ech.com.au
Test required	Disturbed	683	Name		<			<				<			_		Sulphate	7.00	3	lanager:		g By:	
ired	Disturbed soil sample (small plastic bag)				~			<				<			<		Chloride	Results required by:	-	FR		A	
	(small plas	X)		~			<				<			~		ESP	quirea					
	stic bag)	The Contract	Signature	Received by														by:	7	Location:	Project:	Job No:	
# Geotechnique Screen	* Purge & Trap		е	ру																Northwest Growth Centre, Marsden Park	Marsden Park Precinct	12576/1	Page
e Screen	-	1 m																		wth Centre	Precinct		2
	[®] mole H ⁺ /tonne	M	Date												5000		S			, Marsden			of
	nne	301			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	KEEP			Park			9

¥P	WG Legend:				8	33	34	33	32	3	30	29	28	27	20	25				PH: ATTN:		10:	Lemko Place PENRITH N
Water sample, plastic bottle	t: Water sample, glass bottle	Emged Rizkalla	Name				TP-45			TP-44			TP-43			TP-42		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRONMENTAL SERVICES UNIT 16	Lemko Place PENRITH NSW 2750
plastic bottle	lass bottle	alla			2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1		Depth (m)	Sampling details	AMALICOS	REET NSW 2015	MENTAL SERV	
				Relin			1/11/2011			1/11/2011			1/11/2011			1/11/2011		Date	Is			ICES	
		ER	Signature	Relinquished by														Time					PENF
DSG	USG		œ.		DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP		Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751
Disturbed	Undisturb									3/0								Water	e type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		~	V	<	V	~	~	~	V	<	V	V	~	EC			499			Fax: (02) 4722 6161 Fax: info@geotech.com.au
<	DSP	(4)		<	<	<	<	~	<	~	<	<	\ \	~	<	рH			Project Manager:		Sampling By:	61 ech.com.au
Test required	Disturbed	Loa	Name		<				<			<				<	Sulphate	7.00)	lanager:		g By:	
ired	Disturbed soil sample (small plastic bag)				<				<			<				<	Chloride	Kesults required by:		뭐		AN	
	(small pla	3	0		<				<			<				<	ESP	quirea					×
	stic bag)	Jul	Signature	Received by														by:	F	Location:	Project:	Job No:	
# Geotech	* Purge & Trap	-	Ö	ру																	Marsden I	12576/1	Page
# Geotechnique Screen	Trap .	8																		Northwest Growth Centre, Marsden Park	Marsden Park Precinct		ω
en	[@] mole	H H	1 Date			a containing														entre, Mars	C.		<u>್ತ</u>
	[®] mole H ⁺ /tonne	2:30			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	SAMPLE			iden Park			9

ΧP	Legend: WG				34	47	35	5,	£	क्र	S	€	6	(S)	St.	37				PH: ATTN:		TO:	Lemko Place PENRITH N
Water sample, plastic bottle	l: Water sample, glass bottle	Emged Rizkalla	Name				TP-49			TP-48			TP-47			TP-46		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRON	Lemko Place PENRITH NSW 2750
plastic bottle	glass bottle	calla			2.0-2.1	1.0-1.1	0.0-0.1	1.0-1.1	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1		Depth (m)	Sampling details	IAMALICOS	TREET NSW 2015	SGS ENVIRONMENTAL SERVICES	
				Relin			1/11/2011			1/11/2011			1/11/2011			1/11/2011		Date	S			CES	
		ER	Signature	Relinquished by														Time					PEN
DSG	USG		Ге		DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP		Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751
Disturbed so	Undisturbed	-																Water	e type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		×	<	<	V	~	V	<	~	~	V	< ·	<	EC			99			Fax: (02) 4722 6161 email: info@geotech.com.au
<	DSP	6			<	<	<	<	<	<	<	<u> </u>	<	<	<	<	рH			Project Manager:		Sampling By:	161 tech.com.au
Test required	Disturbed	woa	Name				<	<			<			<			Sulphate	7.0		lanager:		By:	
red	Disturbed soil sample (small plastic bag)						<	<			<			<			Chloride	Results required by:	0::	ER .		AN	
	(small plas	S.	0				<	<			<			<			ESP	quired					
	itic bag)	Swe	Signature	Received by														by.		Location:	Project:	Job No:	
# Geotech	* Purge & Trap	10	Ф	y																Northwest	Marsden F	12576/1	Page
# Geotechnique Screen	Trap	0																i e	No.	Growth Ce	Marsden Park Precinct		4
en	[®] mole H ⁺ /tonne	Y A	Date																	Northwest Growth Centre, Marsden Park	CL.		of
	⁺/tonne	トなり			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	SAMPLE			den Park			9

₩P	WG				60	200	SS	57	38	SS	4	X	S	S	8	49				PH:		0.	Lemko Place PENRITH N
Water sample, plastic bottle	Water sample, glass bottle	Emged Rizkalla	Name				TP-53			TP-52			TP-51			TP-50		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRON	Lemko Place PENRITH NSW 2750
plastic bottle	glass bottle	alla			2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1		Depth (m)	Sampling details	IAMALICOS	TREET NSW 2015	SGS ENVIRONMENTAL SERVICES UNIT 16	
				Relin			2/11/2011			1/11/2011			1/11/2011			1/11/2011		Date	S			ICES	
		ER	Signature	Relinquished by														Time					PEN
DSG	USG		e.		DSP	DSP	DSP		Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751									
Disturbed s	Undisturbed																	Water	e type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		~	<	. <	<		~	<	~	<	V	<	<	EC			99			Tel: (02) 4722 2700 Fax: (02) 4722 6161 email: info@geotech.com.au
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Test required	Disturbed	2000	Name			<		<				~		~			Sulphate	Z e	3	ect Manager:		By:	
red	Disturbed soil sample (small plastic bag)					<		<				~		~			Chloride	Results required by:		R		Š	
	(small plas	A				<		<				~		~			ESP	quired					
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# Geotec	* Purge & Trap	4	·e	ОУ																	Marsden	12576/1	Page
# Geotechnique Screen	, Trap	40																		Northwest Growth Centre, Marsden Park	Marsden Park Precinct		5
en	[@] mole	N C	Date																	entre, Mars	ŭ		of.
	[®] mole H ⁺ /tonne	0000			YES	YES	YES	KEEP			den Park			9									

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Water sample, plastic bottle	Water sample, glass bottle	Emged Rizkalla	Name				TP-57			TP-56			TP-55			TP-54		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRONN UNIT 16	SW 2750
astic bottle	ass bottle	a			2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1	8	Depth (m)	Sampling details	MALICOS	REET ISW 2015	SGS ENVIRONMENTAL SERVICES UNIT 16	
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DSG D	usg u				DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP		Soil	Sample type	FAX: 0:			PENRITH NSW 2751
isturbed sc	ndisturbed																	Water	type	02 8594 0499			2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		<	<	. <	<	<	<	~	<	<	<	~	~	EC)9			email: info@geotech.com.au
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Test required	Disturbed	Days	Name		<			<					<		<		Sulphate	Z e		lanager:		By:	
red	Disturbed soil sample (small plastic bag)				<			<					<		<		Chloride	Results required by:		Ŗ		AN	
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	tic bag)	\$ X X	Signature	Received by														by:		Location:	Project:	Job No:	
# Geotech	* Purge & Trap	- -	(D	y													1			Northwest	Marsden F	12576/1	Page
# Geotechnique Screen	Trap	140	-																	Northwest Growth Centre, Marsden Park	Marsden Park Precinct		6
ř	[@] mole H ⁺ /tonne	K C	Date																	ntre, Marsd	g		of
	/tonne	030			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	SAMPLE			en Park			9

WP	WG Legend:				84	83	23	8	8	8	8	77	76	À	76	23				PH: ATTN:		10:	Lemko Place PENRITH N
Water sample plastic bottle	Water sample, glass bottle	Emged Rizkalla	Name				TP-61			TP-60	16		TP-59			TP-58		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRON	Lemko Place PENRITH NSW 2750
plastic bottle	glass bottle	alla			2.0-2.1	1.0-1.1	0.0-0.1	1.0-1.1	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1		Depth (m)	Sampling details	IAMALICOS	TREET NSW 2015	SGS ENVIRONMENTAL SERVICES UNIT 16	
				Relin			3/11/2011			3/11/2011			2/11/2011			2/11/2011		Date	S			ICES	
		ER	Signature	Relinquished by														Time					PENF
DSG	USG		Ф		DSP	DSP	DSP		Soil	Samp	FAX:			P O Box 880 PENRITH NSW 2751									
Disturbed	Undisturb																	Water	Sample type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		<	<		<	. <	~	<	~	~	~	~	<	EC			499			Fax: (02) 4/22 2/00 Fax: (02) 4722 6161 email: info@geotech.com.au
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ired	Disturbed soil sample (small plastic bag)				<				<			~				<	Chloride	Results required by:		男		AN	
	(small pla	9			<				<			~				~	ESP	quirea					
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# Geotech	* Purge & Trap	1	œ	ру																	Marsden P	12576/1	Page
# Geotechnique Screen	Trap	07																		Northwest Growth Centre, Marsden Park	Marsden Park Precinct		7
ă	[®] mole H⁺/tonne	4	√ Date																	ntre, Marsd	4		<u>o</u>
	'/tonne	230			YES	YES	YES	SAMPLE			en Park			9									

₩P	WG Legend				8	S	96	3	92	119	90	8	ÖØ	120	8	क्ष				PH:		10:	Lemko Place PENRITH N
Water sample, plastic bottle	l: Water sample, glass bottle	Emged Rizkalla	Name				TP-65			TP-64			TP-63			TP-62		Location		02 8594 0400 MS ANGELA MAMALICOS	33 MADDOX STREET ALEXANDRIA NSW 2015	SGS ENVIRON UNIT 16	Lemko Place PENRITH NSW 2750
plastic bottle	glass bottle	alla			1.5-1.6	0.5-0.6	0.0-0.1	2.0-2.1	1.0-1.1	0.0-0.1	1.0-1.1	0.5-0.6	0.0-0.1	1.5-1.6	0.5-0.6	0.0-0.1		Depth (m)	Sampling details	AMALICOS	TREET NSW 2015	SGS ENVIRONMENTAL SERVICES UNIT 16	
				Relino			3/11/2011			3/11/2011			3/11/2011			3/11/2011		Date	is			ICES	
		FR	Signature	Relinquished by														Time					PEN
DSG	USG		(G)		DSP	DSP	DSP		Soil	Sample type	FAX:			P O Box 880 PENRITH NSW 2751									
Disturbed	Undisturbe																	Water	e type	02 8594 0499			P O Box 880 NSW 2751
Disturbed soil sample (glass jar)	Undisturbed soil sample (glass jar)	4/11/2011	Date		<	<	×.	<	<	V	<	~	<	V	~	<	EC			199			Tel: (02) 4722 2700 Fax: (02) 4722 6161 email: info@geotech.com.au
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Test required	Disturbed	il Jacob	Name		<			<			~				V		Sulphate	Z e	7	lanager:		g By:	
ired	Disturbed soil sample (small plastic bag)				<			<			<				~		Chloride	Kesuits required by:	2.162	Ŗ		A	
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	stic bag)	3	Signature	Received by														by:	-	Location:	Project:	Job No:	
# Geotechnique Screen	* Purge & Trap	+	œ.	ру																Northwest Growth Centre, Marsden Park	Marsden Park Precinct	12576/1	Page
ue Screen		D4 40	-																	owth Centr	Precinct		ω
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	onne	2:30			YES	YES	YES	KEEP			า Park			9									



Lemko Place PENRITH N TO: SG UN	Lemko Place PENRITH NSW 2750 TO: SGS ENVIRONMENTAL SERVICES UNIT 16 33 MADDOX STREET	MENTAL SERVI	CES	PENF	P O Box 880 PENRITH NSW 2751	P O Box 880 NSW 2751	Te Fa	l: (02) 4722 27 x: (02) 4722 61 nail: info@geot	Tel: (02) 4722 2700 Fax: (02) 4722 6161 email: info@geotech.com.au Sampling	ampling By:	Tel: (02) 4722 2700 Fax: (02) 4722 6161 email: info@geotech.com.au Sampling By: AN	ampling By:	ampling By:	i.com.au Sampling By: AN Job No: Project:	ampling By: AN Job No:
	33 MADDOX STREET ALEXANDRIA NSW 2015	REET NSW 2015											Project:		
PH:	02 8594 0400				FAX:	02 8594 0499	9		Project Ma	Project Manager:	Project Manager: ER			ER Location:	ER
	Sampling d	Sampling details	S		Sample type	e type				כ					
10	Location	Depth (m)	Date	Time	Soil	Water				X G	Kesuits red	Results required	Results required by:	Results required by:	Results required by:
							EC		рH	<u> </u>	pH Sulphate Chloride	<u> </u>	H Sulphate Chloride	H Sulphate Chloride	H Sulphate Chloride
7	TP-66	0.0-0.1	3/11/2011		DSP		<				, ,	, <	, ,		
0000		1.0-1.1			DSP		< <		< <	< <	< < <	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
3 -	TP-67	0.0-0.1	3/11/2011		DSP	-	<		4	<	•	•	•	~	~
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33		1.5-1.6			DSP		~		<	4	~	~	4	~	V
03	TP-68	0.0-0.1	3/11/2011		DSP		<		~	<	<	V	√	√	V
200		1.0-1.1			DSP		<		V	v v	V V V	V V V V	V V V V	V V V V	V V V V
9,		2.0-2.1			DSP		~		<	•	<	<	•	<	•
8	TP-69	0.0-0.1	3/11/2011		DSP		<		V	V	V	•	V	√	√
02		0.5-0.6			DSP		<		~	V	~	V	√	V	√
108		1.5-1.6			DSP		<		\ \	\ \ \ \	\ \ \ \ \	\ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
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	Name			Signature	œ		Date	to .)	e Name))	Name	Name	Name
	Emged Rizkalla	illa		ER			4/11/2011	2011	2011	2011	Se	Se	Swa Swa	Swa Swa	Swa Swa
Legend: WG	: Water sample, glass bottle	lass bottle			USG	Undisturbe	soil samp	Undisturbed soil sample (glass jar)		DSP	DSP	DSP		DSP Disturbed soil sample (small plastic bag)	DSP
N D	Mater sample plastic bottle	lastic bottle			DSG	Disturbed	Disturbed soil sample (glass jar)	ss jar)	ss jar)	<	<		<	✓ Test required	<





CLIENT DETAILS . LABORATORY DETAILS _

Emged Rizkalla **Huong Crawford** Contact Manager

Geotechnique SGS Alexandria Environmental Client Laboratory Address

P.O. Box 880 Address Unit 16, 33 Maddox St PENRITH NSW 2751 Alexandria NSW 2015

SGS Reference

SF103092

02 4722 2700 +61 2 8594 0400 Telephone Telephone 02 4722 6161 +61 2 8594 0499 Facsimile

Facsimile Emged@geotech.com.au au.environmental.sydney@sgs.com Email **Email**

12576/1 - Marsden Park Precinct Fri 4/11/2011 Project Samples Received Wed 16/11/2011 Order Number (Not specified) Report Due

SUBMISSION DETAILS

Samples

108

This is to confirm that 108 samples were received on Friday 4/11/2011. Results are expected to be ready by Wednesday 16/11/2011. Please quote SGS reference SE103092 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix 108 Soils Type of documentation received COC Date documentation received 7/11/11@1:42pm Samples received in good order Yes Samples received without headspace Sample temperature upon receipt 20°C Yes Sample container provider Turnaround time requested Client Standard Samples received in correct containers Yes Sufficient sample for analysis Yes Sample cooling method None Samples clearly labelled Yes

Samples will be held for one month for water samples and two months for soil samples from date of report, unless otherwise instructed.

Yes

Site: Northwest Growth Centre, Marsden Park

Complete documentation received

ESP subcontracted to SGS Cairns, 2/58 Comport St, Portsmith QLD 4870, NATA Accreditation Number: 2562, Site Number: 3146.

To the extent not inconsistent with the other provisions of this document and unless specifically agreed otherwise in writing by SGS, all SGS services are rendered in accordance with the applicable SGS General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm as at the date of this document. Attention is drawn to the limitations of liability and to the clauses of indemnification.

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Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
001	TP-3 0.0-0.1	1	11	1	1	2
002	TP-3 0.5-0.6	1	-	1	1	-
003	TP-3 1.5-1.6	1	-	1	1	-
004	TP-17 0.0-0.1	1	-	1	1	-
005	TP-17 1.0-1.1	1	11	1	1	2
006	TP-17 2.0-2.1	1	-	1	1	-
007	TP-20 0.0-0.1	1	-	1	1	-
008	TP-20 0.5-0.6	1	11	1	1	2
009	TP-20 1.5-1.6	1	-	1	1	-
010	TP-37 0.0-0.1	1	-	1	1	-
011	TP-37 1.0-1.1	1	-	1	1	-
012	TP-37 2.0-2.1	1	11	1	1	2
013	TP-38 0.0-0.1	1	-	1	1	-
014	TP-38 0.5-0.6	1	11	1	1	2
015	TP-38 1.5-1.6	1	-	1	1	-
016	TP-39 0.0-0.1	1	-	1	1	-
017	TP-39 1.0-1.1	1	11	1	1	2
018	TP-39 2.0-2.1	1	-	1	1	-
019	TP-40 0.0-0.1	1	-	1	1	-
020	TP-40 0.5-0.6	1	-	1	1	-
021	TP-40 1.5-1.6	1	11	1	1	2
022	TP-41 0.0-0.1	1	-	1	1	-
023	TP-41 1.0-1.1	1	-	1	1	-
024	TP-41 2.0-2.1	1	11	1	1	2

_ CONTINUED OVERLEAF

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document.

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

8/11/2011 Page 2 of 6



Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
025	TP-42 0.0-0.1	1	11	1	1	2
026	TP-42 0.5-0.6	1	-	1	1	-
027	TP-42 1.5-1.6	1	-	1	1	-
028	TP-43 0.0-0.1	1	-	1	1	-
029	TP-43 1.0-1.1	1	11	1	1	2
030	TP-43 2.0-2.1	1	-	1	1	-
031	TP-44 0.0-0.1	1	-	1	1	-
032	TP-44 0.5-0.6	1	11	1	1	2
033	TP-44 1.5-1.6	1	-	1	1	-
034	TP-45 0.0-0.1	1	-	1	1	-
035	TP-45 1.0-1.1	1	-	1	1	-
036	TP-45 2.0-2.1	1	11	1	1	2
037	TP-46 0.0-0.1	1	-	1	1	-
038	TP-46 0.5-0.6	1	-	1	1	-
039	TP-46 1.5-1.6	1	11	1	1	2
040	TP-47 0.0-0.1	1	-	1	1	-
041	TP-47 1.0-1.1	1	-	1	1	-
042	TP-47 2.0-2.1	1	11	1	1	2
043	TP-48 0.0-0.1	1	-	1	1	-
044	TP-48 0.5-0.6	1	-	1	1	-
045	TP-48 1.0-1.1	1	11	1	1	2
046	TP-49 0.0-0.1	1	11	1	1	2
047	TP-49 1.0-1.1	1	-	1	1	-
048	TP-49 2.0-2.1	1	-	1	1	-

CONTINUED OVERLEAF

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Testing as per this table shall commence immediately unless the client intervenes with a correction.

8/11/2011 Page 3 of 6



Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
049	TP-50 0.0-0.1	1	-	1	1	-
050	TP-50 0.5-0.6	1	-	1	1	-
051	TP-50 1.5-1.6	1	11	1	1	2
052	TP-51 0.0-0.1	1	-	1	1	-
053	TP-51 1.0-1.1	1	11	1	1	2
054	TP-51 2.0-2.1	1	-	1	1	-
055	TP-52 0.0-0.1	1	-	1	1	-
056	TP-52 0.5-0.6	1	-	1	1	-
057	TP-52 1.5-1.6	1	11	1	1	2
058	TP-53 0.0-0.1	1	-	1	1	-
059	TP-53 1.0-1.1	1	11	1	1	2
060	TP-53 2.0-2.1	1	-	1	1	-
061	TP-54 0.0-0.1	1	-	1	1	-
062	TP-54 0.5-0.6	1	11	1	1	2
063	TP-54 1.5-1.6	1	-	1	1	-
064	TP-55 0.0-0.1	1	11	1	1	2
065	TP-55 1.0-1.1	1	-	1	1	-
066	TP-55 2.0-2.1	1	-	1	1	-
067	TP-56 0.0-0.1	1	-	1	1	-
068	TP-56 0.5-0.6	1	-	1	1	-
069	TP-56 1.5-1.6	1	11	1	1	2
070	TP-57 0.0-0.1	1	-	1	1	-
071	TP-57 1.0-1.1	1	-	1	1	-
072	TP-57 2.0-2.1	1	11	1	1	2

CONTINUED OVERLEAF

 $The above table \ represents \ SGS \ Environmental \ Services' \ interpretation \ of \ the \ client-supplied \ Chain \ Of \ Custody \ document.$

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.

8/11/2011 Page 4 of 6



Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
073	TP-58 0.0-0.1	1	11	1	1	2
074	TP-58 0.5-0.6	1	-	1	1	-
075	TP-58 1.5-1.6	1	-	1	1	-
076	TP-59 0.0-0.1	1	-	1	1	-
077	TP-59 1.0-1.1	1	11	1	1	2
078	TP-59 2.0-2.1	1	-	1	1	-
079	TP-60 0.0-0.1	1	-	1	1	-
080	TP-60 0.5-0.6	1	11	1	1	2
081	TP-60 1.0-1.1	1	-	1	1	-
082	TP-61 0.0-0.1	1	-	1	1	-
083	TP-61 1.0-1.1	1	-	1	1	-
084	TP-61 2.0-2.1	1	11	1	1	2
085	TP-62 0.0-0.1	1	-	1	1	-
086	TP-62 0.5-0.6	1	11	1	1	2
087	TP-62 1.5-1.6	1	-	1	1	-
088	TP-63 0.0-0.1	1	-	1	1	-
089	TP-63 0.5-0.6	1	-	1	1	-
090	TP-63 1.0-1.1	1	11	1	1	2
091	TP-64 0.0-0.1	1	-	1	1	-
092	TP-64 1.0-1.1	1	-	1	1	-
093	TP-64 2.0-2.1	1	11	1	1	2
094	TP-65 0.0-0.1	1	-	1	1	-
095	TP-65 0.5-0.6	1	-	1	1	-
096	TP-65 1.5-1.6	1	11	1	1	2

CONTINUED OVERLEAF

 $The above table \ represents \ SGS \ Environmental \ Services' \ interpretation \ of \ the \ client-supplied \ Chain \ Of \ Custody \ document.$

The numbers shown in the table indicate the number of results requested in each package.

8/11/2011 Page 5 of 6

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.



CLIENT DETAILS

Client Geotechnique Project 12576/1 - Marsden Park Precinct

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Exchangeable Cations and Cation Exchange Capacity	Moisture Content	pH in soil (1:5)	Soluble Anions in Soil by Ion Chromatography
097	TP-66 0.0-0.1	1	-	1	1	-
098	TP-66 1.0-1.1	1	-	1	1	-
099	TP-66 2.0-2.1	1	11	1	1	2
100	TP-67 0.0-0.1	1	-	1	1	-
101	TP-67 0.5-0.6	1	11	1	1	2
102	TP-67 1.5-1.6	1	-	1	1	-
103	TP-68 0.0-0.1	1	-	1	1	-
104	TP-68 1.0-1.1	1	11	1	1	2
105	TP-68 2.0-2.1	1	-	1	1	-
106	TP-69 0.0-0.1	1	-	1	1	-
107	TP-69 0.5-0.6	1	-	1	1	-
108	TP-69 1.5-1.6	1	11	1	1	2

The above table represents SGS Environmental Services' interpretation of the client-supplied Chain Of Custody document.

8/11/2011 Page 6 of 6

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details.

Testing as per this table shall commence immediately unless the client intervenes with a correction.



ANALYTICAL REPORT



CLIENT DETAILS -

LABORATORY DETAILS

Contact

Emged Rizkalla Geotechnique

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P.O. Box 880 PENRITH NSW 2751 Manager

Huong Crawford

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Alexandria NSW 2015

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12576/1 - Marsden Park Precinct

15 Samples

Telephone Facsimile

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au.environmental.sydney@sgs.com

SGS Reference Report Number

SE103128 R0 0000012040

Date Reported Date Received 17 Nov 2011 07 Nov 2011

COMMENTS

Order Number

The document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. NATA accredited laboratory 2562(4354).

ESP subcontracted to SGS Cairns, 2/58 Comport St, Portsmith QLD 4870, NATA Accreditation Number: 2562, Site Number: 3146, CE74851

Site: Northwest Growth Centre, Marsden Park.

SIGNATORIES

Dong Liang

Inorganics Metals Team Leader

Snezana Kostoska **Inorganics Chemist**

Mercun loxosca



ANALYTICAL REPORT

SE103128 R0

Parameter	Sar S	ple Number nple Matrix ample Date mple Name	SE103128.001 Soil 04 Nov 2011 TP-70 0.0-0.1	SE103128.002 Soil 04 Nov 2011 TP-70 1.5-1.6	SE103128.003 Soil 04 Nov 2011 TP-71 0.5-0.6	SE103128.004 Soil 04 Nov 2011 TP-71 2.0-2.1	SE103128.005 Soil 04 Nov 2011 TP-72 1.0-1.1
Conductivity and TDS by Calculation - Soil Method:							
Conductivity (1:5 dry sample basis)	μS/cm	1	140	910	1100	220	630
pH in soil (1:5) Method: AN101							
рН	pH Units	-	6.5	4.8	8.2	8.0	4.6
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Chloride	mg/kg	0.25	-	840	-	-	-
Sulphate	mg/kg	0.5	-	400	-	-	-
Moisture Content Method: AN234							
% Moisture	%	0.5	13.1	16.6	17.3	9.9	16.5
	Sai S Sa	ple Number nple Matrix ample Date mple Name	SE103128.006 Soil 04 Nov 2011 TP-73 1.5-1.6	SE103128.007 Soil 04 Nov 2011 TP-74 0.0-0.1	SE103128.008 Soil 04 Nov 2011 TP-75 0.5-0.6	SE103128.009 Soil 04 Nov 2011 TP-75 1.5-1.6	SE103128.010 Soil 04 Nov 2011 TP-76 1.0-1.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:	AN106						
Conductivity (1:5 dry sample basis)	μS/cm	1	1100	830	500	640	780
pH in soil (1:5) Method: AN101							
pH	pH Units	-	4.6	6.3	4.8	4.5	4.6
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Chloride	mg/kg	0.25	1100	-	-	500	-
Sulphate	mg/kg	0.5	290	-	-	340	-
Moisture Content Method: AN234							
% Moisture	%	0.5	20.0	25.1	16.9	19.0	22.2
	Sar S	ple Number nple Matrix ample Date mple Name	SE103128.011 Soil 04 Nov 2011 TP-77 0.0-0.1	SE103128.012 Soil 04 Nov 2011 TP-77 1.5-1.6	SE103128.013 Soil 04 Nov 2011 TP-78 0.0-0.1	SE103128.014 Soil 04 Nov 2011 TP-79 0.5-0.6	SE103128.015 Soil 04 Nov 2011 TP-80 1.0-1.1
Parameter	Units	LOR					
Conductivity and TDS by Calculation - Soil Method:							
Conductivity (1:5 dry sample basis)	μS/cm	1	150	240	160	310	830
pH in soil (1:5) Method: AN101	1						
рН	pH Units	-	5.3	4.9	5.5	4.9	4.4
Soluble Anions in Soil by Ion Chromatography Met	hod: AN245						
Soluble Anions in Soil by Ion Chromatography Methodology Chloride	mg/kg	0.25	-	140	-	310	-

Page 2 of 5 17-November-2011



ANALYTICAL REPORT

SE103128 R0

	Sar S	ple Number nple Matrix ample Date mple Name	Soil 04 Nov 2011	SE103128.012 Soil 04 Nov 2011 TP-77 1.5-1.6	SE103128.013 Soil 04 Nov 2011 TP-78 0.0-0.1	SE103128.014 Soil 04 Nov 2011 TP-79 0.5-0.6	SE103128.015 Soil 04 Nov 2011 TP-80 1.0-1.1
Parameter	Units	LOR					
Moisture Content Method: AN234							
% Moisture	%	0.5	11.8	17.1	8.5	14.2	15.1

Page 3 of 5 17-November-2011



QC SUMMARY

MB blank results are compared to the Limit of Reporting

LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: the absolute difference of the two results divided by the average of the two results as a percentage. Where the DUP RPD is 'NA', the results are less than the LOR and thus the RPD is not applicable.

Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106

	Parameter	QC	Units	LOR	MB	DUP %RPD	LCS
ı		Reference					%Recovery
ı	Conductivity (1:5 dry sample basis)	LB008540	μS/cm	1	<1	1 - 3%	NA

Moisture Content Method: ME-(AU)-[ENV]AN234

Parameter	QC	Units	LOR	DUP %RPD
	Reference			
% Moisture	LB008518	%	0.5	0 - 3%

pH in soil (1:5) Method: ME-(AU)-[ENV]AN101

ı	Parameter	QC	Units	LOR	DUP %RPD	LCS
ı		Reference				%Recovery
ı	pH	LB008543	pH Units	-	1 - 2%	99%

Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245

Parameter	QC	Units	LOR	MB	LCS
Obligation	Reference		0.05	10.05	%Recovery
Chloride	LB008556	mg/kg	0.25	<0.25	104%
Sulphate	LB008556	mg/kg	0.5	<0.5	104%

Page 4 of 5 17-November-2011





METHOD SUMMARY

METHOD

METHODOLOGY SUMMARY

AN101

pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.

AN106

Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as μ mhos/cm or μ S/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2520 B.

AN234

The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.

AN245

Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO2, NO3 and SO4 are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B

EOOTNOTES

IS Insufficient sample for analysis.

LNR Sample listed, but not received.

This analysis is not covered by the scope of accreditation.

Performed by outside laboratory.

LOR Limit of Reporting

↑↓ Raised or Lowered Limit of Reporting

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QFH QC result is above the upper tolerance
QFL QC result is below the lower tolerance
The sample was not analysed for this analyte

NVL Not Validated

Some totals may not appear to add up because the total is rounded after adding up the raw values.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-09.pdf

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Page 5 of 5 17-November-2011



STATEMENT OF QA/QC PERFORMANCE AGAINST DATA QUALITY OBJECTIVES

SE103128 R0

CLIENT DETAILS _____ LABORATORY DETAILS _____

Contact Emged Rizkalla Manager Huong Crawford

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Project 12576/1 - Marsden Park Precinct SGS Reference SE103128 R0

 Order Number
 (Not specified)
 Report Number
 0000012041

 Samples
 15
 Date Reported
 17 Nov 2011

COMMENTS

All the laboratory data for each environmental matrix was compared to the SGS Environmental Services' stated data quality objectives (DQO).

Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the chain of custody document and was supplied by the client.

This QA/QC statement must be read in conjunction with the referenced analytical report.

The statement and the analytical report must not be reproduced except in full.

All Data Quality Objectives were met.

SAMPLE SUMMARY

Sample counts by matrix
Date documentation received
Samples received without headspace
Sample container provider
Samples received in correct containers
Sample cooling method
Complete documentation received

15 Soils 8/11/11@3:35pm N/A Client Yes Ice Bricks Yes Type of documentation received Samples received in good order Sample temperature upon receipt Turnaround time requested Sufficient sample for analysis Samples clearly labelled Email
Yes
2.7°C
Standard
Yes
Yes

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HOLDING TIME SUMMARY

HOLDING TIMES -

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
Conductivity and TDS by Cal	culation - Soil Method: ME-(Al	J)-[ENV]AN106						
TP-70 0.0-0.1	SE103128.001	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-70 1.5-1.6	SE103128.002	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-71 0.5-0.6	SE103128.003	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-71 2.0-2.1	SE103128.004	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-72 1.0-1.1	SE103128.005	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-73 1.5-1.6	SE103128.006	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-74 0.0-0.1	SE103128.007	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-75 0.5-0.6	SE103128.008	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-75 1.5-1.6	SE103128.009	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-76 1.0-1.1	SE103128.010	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-77 0.0-0.1	SE103128.011	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-77 1.5-1.6	SE103128.012	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-78 0.0-0.1	SE103128.013	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-79 0.5-0.6	SE103128.014	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
TP-80 1.0-1.1	SE103128.015	LB008540	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	11 Nov 2011	11 Nov 2011
Moisture Content Method:	ME-(AU)-[ENV]AN234							
TP-70 0.0-0.1	SE103128.001	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-70 1.5-1.6	SE103128.002	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
ΓP-71 0.5-0.6	SE103128.003	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
ΓP-71 2.0-2.1	SE103128.004	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
ΓP-72 1.0-1.1	SE103128.005	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-73 1.5-1.6	SE103128.006	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
ГР-74 0.0-0.1	SE103128.007	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-75 0.5-0.6	SE103128.008	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-75 1.5-1.6	SE103128.009	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
ГР-76 1.0-1.1	SE103128.010	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
ГР-77 0.0-0.1	SE103128.011	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-77 1.5-1.6	SE103128.012	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-78 0.0-0.1	SE103128.013	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-79 0.5-0.6	SE103128.014	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
TP-80 1.0-1.1	SE103128.015	LB008518	04 Nov 2011	07 Nov 2011	18 Nov 2011	10 Nov 2011	15 Nov 2011	11 Nov 2011
pH in soil (1:5) Method: M	E-(AU)-[ENV]AN101	1	1	1	1		1	
TP-70 0.0-0.1	SE103128.001	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
TP-70 0.5-0.1 TP-70 1.5-1.6	SE103128.002	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
TP-71 0.5-0.6	SE103128.003	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-71 2.0-2.1	SE103128.004	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
TP-72 1.0-1.1	SE103128.005	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-73 1.5-1.6	SE103128.006	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
TP-74 0.0-0.1	SE103128.007	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-75 0.5-0.6	SE103128.008	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-75 1.5-1.6	SE103128.009	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-76 1.0-1.1	SE103128.010	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-77 0.0-0.1	SE103128.011	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-77 1.5-1.6	SE103128.011	LB008543		07 Nov 2011 07 Nov 2011				
TP-78 0.0-0.1	SE103128.012	LB008543	04 Nov 2011		11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
			04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011
ΓP-79 0.5-0.6	SE103128.014	LB008543	04 Nov 2011	07 Nov 2011	11 Nov 2011	10 Nov 2011	12 Nov 2011	11 Nov 2011

17/11/2011 Page 2 of 9



HOLDING TIME SUMMARY



HOLDING TIMES -

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field sampling guide for containers and holding time" (Ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1: 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

The extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and Analysis dates are shown in Green when within suggested criteria and in **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Sample Name	Sample Number	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed		
Sample Name	Sample Number	QC Nei	Sampled	Received	LAH action Due	LAHacieu	Allalysis Due	Analyseu		
Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245										
TP-70 1.5-1.6	SE103128.002	LB008556	04 Nov 2011	07 Nov 2011	02 Dec 2011	10 Nov 2011	02 Dec 2011	14 Nov 2011		
TP-73 1.5-1.6	SE103128.006	LB008556	04 Nov 2011	07 Nov 2011	02 Dec 2011	10 Nov 2011	02 Dec 2011	14 Nov 2011		
TP-75 1.5-1.6	SE103128.009	LB008556	04 Nov 2011	07 Nov 2011	02 Dec 2011	10 Nov 2011	02 Dec 2011	14 Nov 2011		
TP-77 1.5-1.6	SE103128.012	LB008556	04 Nov 2011	07 Nov 2011	02 Dec 2011	10 Nov 2011	02 Dec 2011	14 Nov 2011		
TP-79 0.5-0.6	SE103128.014	LB008556	04 Nov 2011	07 Nov 2011	02 Dec 2011	10 Nov 2011	02 Dec 2011	14 Nov 2011		

17/11/2011 Page 3 of 9



Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

No Surrogates were required for this job.

17/11/2011 Page 4 of 9







Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, which is typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

Parameter	Units	Control LOR	BLK MB
Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245 LB008556.001			
Chloride	mg/kg	0.25	<0.25
Sulphate	mg/kg	0.5	<0.5

17/11/2011 Page 5 of 9

SE103128.001-DUP



% Moisture

DUPLICATES

Duplicates are calculated as relative percent difference (RPD) using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability

Sample Name

Where the MaxAllowableDifference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008540.003						
Conductivity (1:5 dry sample basis)	μS/cm	1	140	140	31	3
pH in soll (1:5) Method: ME-(AU)-[ENV]AN101 LB008543.003						
pH	pH Units	-	6.5	6.7	32	2
	S	ample Name		SE103128	3.010-DUP	
Parameter	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Moisture Content Method: ME-(AU)-[ENV]AN234 LB008518.011						
% Moisture	%	0.5	22.2	22.1	32	0
	S	ample Name		SE103128	3.013-DUP	
	Units	LOR	Original Result	Duplicate Result	Criteria %	RPD %
Parameter	00					
Parameter Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008540.016	55					
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106	μS/cm	1	160	160	31	1
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008540.016		1	160	160	31	1
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008540.016 Conductivity (1:5 dry sample basis) PH in soil (1:5) Method: ME-(AU)-[ENV]AN101		1 -	5.5	5.5	31 32	1
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008540.016 Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008543.016	μS/cm pH Units			5.5		
Conductivity and TDS by Calculation - Soil Method: ME-(AU)-[ENV]AN106 LB008540.016 Conductivity (1:5 dry sample basis) pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008543.016	μS/cm pH Units	-		5.5	32	

17/11/2011 Page 6 of 9





LABORATORY CONTROL STANDARDS

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of the report.

Recovery is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

	Control			LCS STD			
Parameter	Units	LOR	Result	Expected Result	Criteria %	Recovery %	
pH in soil (1:5) Method: ME-(AU)-[ENV]AN101 LB008543.001							
рН	pH Units	-	7.4	7.41	98 - 102	99	
Soluble Anions in Soil by Ion Chromatography Method: ME-(AU)-[ENV]AN245 LB008556.002							
Chloride	mg/kg	0.25	100	100	70 - 130	104	
Sulphate	mg/kg	0.5	100	100	70 - 130	104	

17/11/2011 Page 7 of 9



SGS

QUALITY CONTROL - MATRIX SPIKES

Matrix spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub-sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of the report. Recovery is shown in Green when within suggested criteria or Bold with an appended dagger symbol and Red† when outside suggested criteria.

No Matrix Spikes were required for this job.

17/11/2011 Page 8 of 9



MATRIX SPIKE DUPLICATES



Matrix spike duplicates are calculated as relative percent difference using the formula RPD = | OriginalResult - ReplicateResult | x 100 / Mean The original result is the analyte concentration of the matrix spike and the replicate result is the analyte concentration of the matrix spike duplicate. The RPD is evaluated against the maximum allowable RPD criteria and can be graphically represented by a curve calculated from the statistical detection limit and limiting repeatability using the formula: MaxAllowableDifference = 100 x StatisticalDetectionLimit / Mean + LimitingRepeatability RPD is shown in Green when within suggested criteria or **Bold** with an appended dagger symbol and **Red†** when outside suggested criteria.

No Matrix Spike Duplicates were required for this job.

FOOTNOTES _

IS Insufficient sample for analysis. LNR Sample listed, but not received.

NATA Accreditation does not cover this analysis.

^ Performed by outside laboratory.

LOR Limit of Reporting

Samples analysed as received.
Solid samples expressed on a dry weight basis.

QFH QC result is above the upper tolerance
QFL QC result is below the lower tolerance
NA The sample was not analysed for this analyte

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.au.sgs.com/sgs-mp-au-env-qu-022-qa-qc-plan-en-09.pdf

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17/11/2011 Page 9 of 9



LABORATORY REPORT COVERSHEET

Date: 17 November 2011

To: Geotechnique Pty Ltd

PO Box 880

PENRITH NSW 2015

Attention: Emged Rizkalla

Your Reference: SE103128 - 12576/1 - Marsden Park Precinct

Laboratory Report No: CE74851

Samples Received: 9/11/2011 Samples / Quantity: 5 Soils

The above samples were received intact and analysed according to your written instructions. Unless otherwise stated, solid samples are reported on a dry weight basis and liquid samples as received.

Jon Dicker

Manager CAIRNS **Shey Goddard**

Speddard

Administration Manager

CAIRNS



PROJECT: SE103128 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74851

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74851-1 TP-70 1.5-1.6 Soil 4/11/2011	CE74851-2 TP-73 1.5-1.6 Soil 4/11/2011	CE74851-3 TP-75 1.5-1.6 Soil 4/11/2011
Date Extracted		9/11/2011	9/11/2011	9/11/2011
Date Analysed		15/11/2011	15/11/2011	15/11/2011
Sodium, Na	mg/kg	960	2,300	1,200
Sodium (meq%)	meq%	4.2	10	5.2
Exchangeable Sodium	%	34	38	31
Potassium, K	mg/kg	550	280	310
Potassium (meq%)	meq%	1.4	0.72	0.79
Exchangeable Potassium	%	11	3	5
Calcium, Ca	mg/kg	19	24	78
Calcium (meq%)	meq%	0.10	0.12	0.39
Exchangeable Calcium	%	<1	<1	2
Magnesium, Mg	mg/kg	810	1,900	1,300
Magnesium (meq%)	meq%	6.6	16	11
Exchangeable Magnesium	%	54	59	62
CEC	meq%	12	26	17



PROJECT: SE103128 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74851

Cation Exchange Capacity Suite Our Reference Your Reference Type of Sample Date Sampled	Units	CE74851-4 TP-77 1.5-1.6 Soil 4/11/2011	CE74851-5 TP-79 0.5-0.6 Soil 4/11/2011
Date Extracted		9/11/2011	9/11/2011
Date Analysed		15/11/2011	15/11/2011
Sodium, Na	mg/kg	610	630
Sodium (meq%)	meq%	2.6	2.7
Exchangeable Sodium	%	22	23
Potassium, K	mg/kg	210	150
Potassium (meq%)	meq%	0.54	0.38
Exchangeable Potassium	%	4	3
Calcium, Ca	mg/kg	12	5
Calcium (meq%)	meq%	0.06	0.02
Exchangeable Calcium	%	<1	<1
Magnesium, Mg	mg/kg	1,100	1,100
Magnesium (meq%)	meq%	9.0	9.0
Exchangeable Magnesium	%	74	74
CEC	meq%	12	12



PROJECT: SE103128 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74851

TEST PARAMETERS	UNITS	LOR	METHOD
Date Extracted			
Date Analysed			
Sodium, Na	mg/kg	2	AN122 / AN320 RL15D3
Sodium (meq%)	meq%	0.01	Calculation
Exchangeable Sodium	%	1	Calculation
Potassium, K	mg/kg	2	AN122 / AN320 RL15D3
Potassium (meq%)	meq%	0.01	Calculation
Exchangeable Potassium	%	1	Calculation
Calcium, Ca	mg/kg	2	AN122 / AN320 RL15D3
Calcium (meq%)	meq%	0.01	Calculation
Exchangeable Calcium	%	1	Calculation
Magnesium, Mg	mg/kg	2	AN122 / AN320 RL15D3
Magnesium (meq%)	meq%	0.01	Calculation
Exchangeable Magnesium	%	1	Calculation
CEC	meq%	0.01	AN122 / AN320 RL15D3



PROJECT: SE103128 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74851

QUALITY CONTROL	UNITS	Blank	Duplicate	Duplicate	Spike Sm#	Spike
			Sm#	Sample Duplicate		Recovery
Date Extracted		09/11/11	CE74851-1	9/11/2011 9/11/2011	Batch Spike	-
Date Analysed		15/11/11	CE74851-1	15/11/2011 15/11/2011	Batch Spike	-
Sodium, Na	mg/kg	<2	CE74851-1	960 930 RPD: 3	Batch Spike	90%
Sodium (meq%)	meq%	-	CE74851-1	4.2 4.0 RPD: 5	Batch Spike	-
Exchangeable Sodium	%	-	CE74851-1	34 34 RPD: 0	Batch Spike	-
Potassium, K	mg/kg	<2	CE74851-1	550 530 RPD: 4	Batch Spike	90%
Potassium (meq%)	meq%	-	CE74851-1	1.4 1.4 RPD: 0	Batch Spike	-
Exchangeable Potassium	%	-	CE74851-1	11 11 RPD: 0	Batch Spike	-
Calcium, Ca	mg/kg	<2	CE74851-1	19 19 RPD: 0	Batch Spike	93%
Calcium (meq%)	meq%	-	CE74851-1	0.10 0.10 RPD: 0	Batch Spike	-
Exchangeable Calcium	%	-	CE74851-1	<1 <1	Batch Spike	-
Magnesium, Mg	mg/kg	<2	CE74851-1	810 790 RPD: 2	Batch Spike	91%
Magnesium (meq%)	meq%	-	CE74851-1	6.6 6.5 RPD: 2	Batch Spike	-
Exchangeable Magnesium	%	-	CE74851-1	54 54 RPD: 0	Batch Spike	-
CEC	meq%	-	CE74851-1	12 12 RPD: 0	Batch Spike	-



PROJECT: SE103128 - 12576/1 - Marsden Park Precinct Laboratory Report No: CE74851

LABORATORY REPORT

NOTES:

LOR - Limit of Reporting.

The significance of all reported results are defined by their analytical limit of reporting.

Analysis Date: Between 9/11/11 and 17/11/11

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