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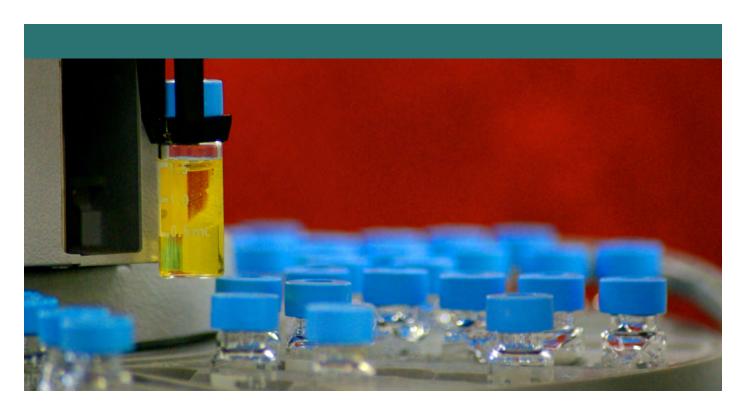


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### Full analytical services price list

The Environmental Analysis Laboratory (EAL) is part of Southern Cross University and is set up as a commercial, teaching and research facility. EAL specialises in a range of environmental testing services for waters, acid sulfate soils, agricultural soils, cmposts, potting mixes, landscape soils, plants and for effluent monitoring.

EAL employs over 50 professional staff and uses the following instruments: Perkin Elmer 8300DV, Avio500 and Avio550 ICPOES, NexION 2000B and 300D ICPMS and NexION 350D ICPMS with FLEXAR HPLC; LECO SC832, C832, CN928 and Analyser; LECO TruMac CNS Analysers; CRS Analysers; Lachat, OI and Seal Nutrient Analysers; Soxtherm Oils and Grease Analysers; Malvern XRD; Leica

SEM with EDAX; Hitachi desktop SEM with EDAX; Pananalytical XRF; Malvern Mastersizer 3000LV/SM Laser Diffraction Particle Size Analyser; Waters Ion Chromatography system; Shumadsu TOC/DOC Analyser; Thermo-Finnigan IRMS; NewWave Laser Ablation System with Agilent ICPMS; Mantech and SKALAR pH/EC Analysers.

Specialists in the Faculty of Science and Engineering, and Cooperative Research Centres, can also provide complete sampling, data interpretation and report production services. This includes specialists in soil science, geology, geochemistry, plant and fisheries biology, palaeontology, hydrology, marine biology and ecology.

#### Important notes on charges, turnaround times and results

The following points apply to sample analysis:

- Sample specific quotes can be negotiated and customised at competitive rates on request
- An admin batch charge of \$31.50 +GST applies per sample type (certificate of analysis) for each sample submission form
- A 50% discount applies to each admin charge where more than one sample type is included on a submission form
- · Sub-contracted analyses are sent to approved laboratories
- On-site sample collection by qualified staff is available at a basic rate of \$115.50 +GST per hour
- Turn-around times for individual projects vary depending on project size and complexity; most are completed within five to ten working days of receiving samples
- URGENT turn-around times (TAT) are available on request for selected tests. These incur 100% surcharge for one working day, 50% for two, 25% for three and 12.5% for four working days service (note samples must arrive at the laboratory by noon to ensure these TAT)
- Results are supplied in Excel and PDF report format. They detail the analytical results in relation to standard guidelines, where available
- Sample Receipt Notices, Results and Invoices are supplied by email and may be posted if requested.
- Payment is requested on delivery of samples (cash, eftpos). Invoices are available to regular clients. Minimum invoice amount is required
- EAL reserves the right to change prices at any time.
   Quoted prices remain valid until quote expiry.

#### Confidentiality and quality assurance

Confidentiality is an integral part of our quality assurance certification. Results will not be released to a third party without written client consent.

Strict quality control procedures are applied to all chemical, physical and bacteriological analyses. This involves the frequent use of replicates to monitor precision; standard reference materials and blanks monitor accuracy.

The laboratory is also routinely involved in inter-laboratory comparisons and trials, including the Australian Standards National Low Level Nutrient Collaborative Trials (NLLNCT) program. EAL is a member of ASPAC (Australian Soil and Plant Analysis Council) which includes a regular Quality Assurance Program for soils and plants. EAL also assists in the formulation of suitable laboratory methods for acid sulfate soil analysis.

EAL is a NATA (National Association of Testing Authorities) accredited laboratory (Lab. Acc. No. 14960). Accreditation is on selected tests (refer to final page); EAL is continually updating the number of tests directly accredited by NATA.

EAL uses many industry accepted method references as the base for NATA, ASPAC and other in-house methods of testing. These references include Standard Methods for the Examination of Water and Wastewater (APHA), Australian Standards (AS), National Acid Sulfate Soils Guidance (Sullivan, Ward, Toppler and Lancaster, 2018) and Soils Chemistry Methods – Australasia (Rayment and Lyons, 2011).

#### Instructions for submitting samples

#### **Collection and preservation procedure for Water samples:**

- Minimum of 500 mL required in a plastic water bottle
- Separate glass bottles required for oils and grease or organics (pesticides, hydrocarbons, phenol, etc.)
- Thoroughly rinse the bottle with sample water collecting a representative sample
- EAL can supply free of charge clean/sterile bottles on request
- Download <u>EAL Water Preservation Sampling Guide</u> for suggestions
- Label bottle with site name and date of sampling.

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#### Collection procedure for soil samples

- 200-300 g required (half a plastic lunch bag is most suitable)
- · Collect a representative soil sample
- · Download EAL Soil Sampling Guide for suggestions
- Label bag with block, crop, client name and date of sampling.

# Collection procedures for Australian Standards (AS4419, AS3743, AS4454)

- Minimum of 4 kg required (10 L plastic bucket or large heavy duty plastic bag is most suitable)
- · Label samples as per relevant Australian Standard
- · Call EAL with any questions.

# Collection procedure for Acid Sulfate Soil and Rock samples

- · Collect a representative soil or rock sample
- EAL prefers one tightly packed 70 mL vial or small rock core or dust sample (vials available free on request)
- Alternatively, send ~ 200 g double bagged to exclude oxygen
- Refer to <u>National Acid Sulfate Soils Guidance (2018)</u> for sample collection
- · Label vial with name and date of sampling
- If Acid Volatile Sulfide (AVS) is required, an additional vial should be collected and immediately frozen for submission.

#### Courier address:

Southern Cross University Environmental Analysis Laboratory (EAL) Ground floor, N Block Military Road East Lismore NSW 2480

#### **EAL** contact:

P: 02 6620 3678 or

Graham Lancaster M: 0419 984 088

NOTE: URGENT DELIVERY OF SAMPLES FOR TESTING

#### **Collection procedure for Plant Tissue samples**

- 50-100 g required (paper lunch bag is most suitable)
- Collect a representative leaf sample from areas of paddock or crop
- · Download EAL Plant Leaf Sampling Guide suggestions
- Label bag with block, crop, client name and date of sampling.

#### Complete EAL Sample Submission Form (SSF)

- Download a <u>Sample Submission Form</u>; excel versions also available
- Complete all relevant details on the SSF
- Use Test Codes from the Price List e.g. AS-PACK-008
- Credit card and cheque are the preferred methods of payment.

#### Package and send samples

- Package sample(s) in postpak, box or esky use freezer bricks to keep acid sulfate soil materials cold
- Enclose a completed <u>Sample Submission Form</u> in a sealed plastic sleeve along with any other instructions
- Samples can be dropped off in person at EAL. The
  university gatehouse will provide directions; follow the
  EAL signs posted around the university. Client parking is
  reserved in the lane way next to sample reception
- Samples can also be sent by post or courier. TNT or TOLL are our preferred couriers, they can be contacted on 131 150 or 131 531, respectively. Please use the following delivery labels below.

#### Postal address:

Southern Cross University Environmental Analysis Laboratory (EAL) PO Box 157 Lismore NSW 2480

#### **EAL** contact:

P: 02 6620 3678 or

Graham Lancaster M: 0419 984 088

NOTE: URGENT DELIVERY OF SAMPLES FOR TESTING

Laboratory position	Contact	Phone / Fax	Email
Administration	Reception	02 6620 3678 / 02 6620 3957	eal@scu.edu.au
Senior Manager	Graham Lancaster	0419 984 088	graham.lancaster@scu.edu.au
Laboratory Manager	Nadia Toppler	0447 011 070	nadia.toppler@scu.edu.au
Waters/ICP Co-ordinator	Matt Pocock	0400 767 139	matt.pocock@scu.edu.au
Agricultural Co-ordinator	Kris Saville	0437 016 017	kris.saville@scu.edu.au
Compost/Landscape Soils Co-ordinator	Brian Smith	0437 016 091	brian.smith@scu.edu.au
Acid Sulfate/Physical/LECO Co-ordinator	Nick Ward	0429 384 327	nicholas.ward@scu.edu.au
Administration	Invoicing	02 6620 3335	jacqui.hayter@scu.edu.au

Terms and conditions: Sample submission to EAL infers acceptance of the EAL Terms and Conditions.

ABN: 41 995 651 524

### WATERS ANALYTICAL SERVICES

### **WATER TESTING**

Metals as Total Available / Acid Soluble unless requested otherwise. All packs have preparation and digest/extract charge include			
ITEM CODE	SPECIFIC WATER SUITES	PRICE excl. GST	PRICE incl. GST
SW-PACK-002	Water Quality - Basic For drinking and domestic use. Includes pH, EC, Total Dissolved Salts (TDS) (calc.), Water Hardness, Total Alkalinity, Turbidity, Total Coliforms, E.Coli Bacteria.	\$73.50	\$80.85
SW-PACK-003	Water Quality - Comprehensive For drinking and domestic use. Includes pH, EC, Total Dissolved Salts (TDS) (calc), Water Hardness, Total Alkalinity, Turbidity, Total Coliforms and E.Coli Bacteria; Nitrate; Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Manganese, Nickel, Lead, Zinc, Mercury.	\$115.50	\$127.05
SW-PACK-004	Irrigation Suitability - Basic Includes pH, EC, Total Dissolved Salts (TDS) (calc), Iron and Manganese; Sodium, Potassium, Calcium, Magnesium, Sulfate, Chloride; Turbidity, Total Alkalinity, Water Hardness (calc), Saturation Index; Sodium Absorption Ratio (SAR).	\$84.00	\$92.40
SW-PACK-005	Irrigation and Livestock Suitability – Comprehensive Includes pH, EC, Total Dissolved Salts (TDS) (calc), Water Hardness, Total Alkalinity, Turbidity, Total Coliforms and E.Coli Bacteria; Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Manganese, Nickel, Lead, Zinc; Nitrate, Ammonium, Phosphate; Sodium, Potassium, Calcium, Magnesium, Chloride, Sulfate, Sodium Absorption Ratio (SAR).	\$157.50	\$173.25
SW-PACK-015	Wastewater Monitoring Includes pH, Total Suspended Solids (TSS); Biochemical Oxygen Demand (BOD); Total Oils and Grease (TOG).	\$99.75	\$109.73
SW-PACK-016	Acid Sulfate Waters Includes pH, EC, Total Dissolved Salts (TDS) (calc); Titratable Acidity; Dissolved Iron and Aluminium; Sulfate, Chloride, Sulfate:Chloride Ratio.	\$73.50	\$80.85
SW-PACK-021	Aggressivity Assessment Includes pH, EC, Total Dissolved Salts (TDS) (calc), Resistivity (calc), Soluble Chloride, Sulfate.	\$47.25	\$51.98
SW-PACK-007	Agricultural Stock Use Includes pH, EC, Total Dissolved Salts (TDS) (calc.); Water Hardness; Total Alkalinity; Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury; Nitrate, Ammonium, Phosphate; Faecal Coliforms.	\$126.00	\$138.60
SW-PACK-041	Aquaculture Monitoring Suite Includes pH, Total Suspended Solids (TSS), Biochemical Oxygen Demand (BOD), TotalNitrogen (TN), Total Phosphorus (TP).	\$94.50	\$103.95
SW-PACK-001	Bacteria Includes Total Coliforms and E.Coli.	\$47.25	\$51.98
SW-PACK-025	<b>Dust Analysis</b> As per Total Suspended Solids (TSS) and Method AS 3580.10.1.8.2.2-1991.	\$26.25	\$28.88
SW-PACK-022	Dust Ashing Analysis Includes Volatile Suspended Solids (VSS), Total Suspended Solids (TSS), Total Dissolved Solids (TDS).	\$68.25	\$75.08
SW-PACK-018	Effluent Monitoring Includes pH, Total Suspended Solids (TSS); Biochemical Oxygen Demand (BOD); Total Oils and Grease (TOG); Total Nitrogen (TN), Total Phosphorus (TP); Nitrate, Nitrite, Phosphate, Ammonium; Faecal Coliforms.	\$199.50	\$219.45
SW-PACK-012	Environmental Monitoring 1a Includes pH, EC, Total Dissolved Salts (TDS) (calc.); Total Suspended Solids (TSS); Nitrate, Nitrite, Phosphate, Ammonium; Total Nitrogen (TN), Total Phosphorus (TP).	\$105.00	\$115.50
SW-PACK-013	Environmental Monitoring 1b (EPA Suite) Includes pH, EC, Total Dissolved Salts (TDS) (calc); Total Suspended Solids (TSS); Nitrate, Nitrite, Phosphate, Ammonium; Total Nitrogen and Total Phosphorus; Biochemical Oxygen Demand (BOD).	\$136.50	\$150.15
SW-PACK-017	Environmental Monitoring 2 Includes pH, EC, Total Dissolved Salts (TDS) (calc.); Total Suspended Solids (TSS); Total Nitrogen and Total Phosphorus; Nitrate, Nitrite, Phosphate, Ammonium; Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury; Sodium, Potassium, Calcium, Magnesium, Sulfate, Chloride; Bicarbonate Alkalinity, Water Hardness (calc); Sodium Absorption Ratio (SAR).	\$189.00	\$207.90
SW-PACK-058	Gas Contamination Monitoring for Dissolved Gases Includes Acetylene, Butane, Ethane, Ethane, Methane and Propane.	\$147.00	\$161.70

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ITEM CODE	SPECIFIC WATER SUITES (Cont.)	PRICE excl. GST	PRICE incl. GST
SW-PACK-056	Gas Contamination Water Quality Monitoring Includes pH, EC, Total Dissolved Salts (TDS) (calc), Total Alkalinity, Total Suspended Solids (TSS); Total Petroleum Hydrocarbons (TPH C10-C40), BTEX (Equivalent TPH C6-C10); Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$168.00	\$184.80
SW-PACK-080	General Plant Pathogen Scan Plus General plant pathogen water scan including Phytophthora, Pythium, Rhizoctonia and Fusarium. Note: 1 L of sample is required to complete testing.	\$525.00	\$577.50
SW-PACK-078	Liquid Compost Analysis Includes pH, EC; TOC, TN; NO <sub>3</sub> , NH <sub>4</sub> , PO <sub>4</sub> ; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Salmonella, Ecoli, Faecal Coliforms. Note: 1 L of sample required as well as 200 mL Bacto sample.	\$294.00	\$323.40
SW-PACK-026	Liquid - Fertiliser Totals Includes acid digestion then ICP analysis for Phosphorus; Sodium, Potassium, Calcium, Magnesium, Sulfur; Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron. Also includes pH, EC, Total Dissolved Salts (TDS) (calc); Total Nitrogen (TN).	\$189.00	\$207.90
SW-PACK-057	Liquid - Hydroponic Availables Includes 0.45 μm filter then ICP analysis for Sodium, Potassium, Calcium, Magnesium, Sulfur, Chloride; Available Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron. Also includes pH, EC; Total Nitrogen (TN), Phosphorus (TP).	\$136.50	\$150.15
SW-PACK-070	MRTS - FORM I - Non-potable Water Testing and Assessment Report Includes pH, EC; Sodium, Potassium, Calcium, Magnesium, Sulfate, Chloride, Sodium Absorption Ratio (SAR); Bicarbonate/Carbonate Alkalinity; Salmonella, Ecoli, Total Colilforms.	\$157.50	\$173.25
SW-PACK-020	Nutrients - Dissolved Includes Nitrate, Nitrite, Phosphate, Ammonium.	\$47.25	\$51.98
SW-PACK-019	Nutrients - Total Includes Total Nitrogen (TN), Total Phosphorus (TP).	\$52.50	\$57.75
SW-PACK-042	Petroleum Hydrocarbons Includes Total Petroleum Hydrocarbons (TPH C10-C40), BTEX (Equivalent TPH C6-C10).	\$84.00	\$92.40
SW-PACK-077	Plant pathogens in water	\$157.50	\$173.25
SW-PACK-076	Public Pools Microbiological Monitoring  Microbiological analysis of Total Plate Count (i.e. Heterotrophic colony count), Ecoli and Pseudomonas aeruginosa.  (250 mL bacto sample container with thiosulfate preservative- do not rinse container).	\$105.00	\$115.50
SW-PACK-014	Salts Suite Includes pH, EC, Sodium, Potassium, Calcium, Magnesium, Sulfate, Chloride; Total Alkalinity, Water Hardness (calc); Sodium Absorption Ratio (SAR).	\$73.50	\$80.85
SW-PACK-028	Volatile Fatty Acids (VFA) Includes Volatile Fatty Acids (VFA), pH, Alkalinity.	\$63.00	\$69.30
SW-PACK-055	Water Analysis - Basic Includes pH, EC, Total Dissolved Salts (TDS) (calc); Total Suspended Solids (TSS).	\$31.50	\$34.65
SW-PACK-079	Water Contamination Assessment Includes Metals (Total Available Al, As, Cd, Cr, Cu, Fe Pb, Mn, Hg, Ni, Se, Ag, Zn), PAH, TPH, BTEX, and speciated Phenolics.	\$231.00	\$254.10
SW-PACK-073	Water Source Identification Includes pH, EC, TDS (Calc), turbidity, nitrate, nitrite, ammonia, phosphate, fluoride, Total and free residual chlorine and Ecoli bacteria (used to indicate if water is sourced from town reticulation, sewage, recycling, ground, surface or rain water – comments provided on email of results).	\$147.00	\$161.70
SW-PACK-071	Water quality for concrete mixes under AS1379 Includes pH, EC, TDS (by calc), Total Suspended Solids, Total Oils and Grease, Sugars (Biological Oxygen Demand), Chloride, Sodium and Sulfate.	\$147.00	\$161.70

ITEM CODE	WATERS PREPARATIONS	PRICE excl. GST	PRICE incl. GST
SW-PREP-005	As Supplied - Research Samples/External Preparation	\$0.00	\$0.00
SW-PREP-003	Filtered/Dissolved Metals Immediate filtration through 0.45 μm filter followed by acidification with Nitric acid. It is particularly important where waters are high in suspended clay matter, where Iron and Aluminium may be present.	\$5.25	\$5.78
SW-PREP-006	Saline Waters Instrument Setup (per batch)	\$105.00	\$115.50
SW-PREP-007	Total Acid Digestable Metals  Nitric Acid digest. Used on oils, liquid fertilisers and when requested.	\$31.50	\$34.65

ITEM CODE	WATERS PREPARATIONS (Cont.)	PRICE excl. GST	PRICE incl. GST
SW-PREP-002	Total Available/Acid Soluble Metals  Acidification with Nitric acid. Used on nearly all environmental waters, acid sulfate waters, groundwater and surfacewaters (According to ANZECC guidelines). Also used for clean waters, drinking waters, when acidified in the field and when requested.	\$5.25	\$5.78
SW-PREP-001	Total Recoverable Metals  Nitric Acid digest. Used on high sludge/solid waters and when requested.	\$15.75	\$17.33

	All packs have preparation and digest/extract charge included. Saline waters that request low level met		
ITEM CODE	METAL SUITES	PRICE excl. GST	PRICE incl. GST
SW-PACK-031	Basic Metals Scan - As Supplied (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$57.75	\$63.53
SW-PACK-040	Basic Metals Scan - Dissolved (filtered then acidified) (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$63.00	\$69.30
SW-PACK-029	Basic Metals Scan - Total Available/Acid Soluble (acidified) (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$63.00	\$69.30
SW-PACK-030	Basic Metals Scan - Total Recoverable (digested with nitric acid) (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$68.25	\$75.08
SW-PACK-043	Extra Metals Scan - As Supplied (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$57.75	\$63.53
SW-PACK-044	Extra Metals Scan - Dissolved (filtered then acidified) (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Phosphorous, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$63.00	\$69.30
SW-PACK-045	Extra Metals Scan - Total Available/Acid Soluble (acidified) (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$63.00	\$69.30
SW-PACK-046	Extra Metals Scan - Total Recoverable (digested with nitric acid) (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Phosphorous, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$68.25	\$75.08
SW-PACK-074	Metals Screen in Oil - Total Acid Digestable (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc. Note: 25 mL required to complete testing.	\$94.50	\$103.95
SW-PACK-060	Saline Water Metals (Low Level) > 20 mS/cm (As Supplied) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$84.00	\$92.40
SW-PACK-061	Saline Water Metals (Low Level) > 20 mS/cm (Dissolved) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$89.25	\$98.18
SW-PACK-062	Saline Water Metals (Low Level) > 20 mS/cm (Total Available/Acid Soluble) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$89.25	\$98.18
SW-PACK-063	Saline Water Metals (Low Level) > 20 mS/cm (Total Recoverable) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$94.50	\$103.95
SW-PACK-039	Salts Scan - As Supplied (ICPMS) Includes Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur.	\$31.50	\$34.65
SW-PACK-036	Salts Scan - Dissolved (filtered then acidified) (ICPMS) Includes Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur.	\$36.75	\$40.43
SW-PACK-037	Salts Scan - Total Available/Acid Soluble (acidified) (ICPMS) Includes Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur.	\$36.75	\$40.43
SW-PACK-038	Salts Scan - Total Recoverable (digested with nitric acid) (ICPMS) Includes Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur.	\$42.00	\$46.20

ITEM CODE	METAL SUITES (Cont.)	PRICE excl.	PRICE incl. GST
SW-PACK-051	Special - Metals and Salts Combo - As Supplied (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur).	\$115.50	\$127.05
SW-PACK-052	Special - Metals and Salts Combo - Dissolved (filtered then acidified) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur).	\$120.75	\$132.83
SW-PACK-053	Special - Metals and Salts Combo - Total Available/Acid Soluble (acidified) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur).	\$120.75	\$132.83
SW-PACK-054	Special - Metals and Salts Combo - Total Recoverable (digested with nitric acid) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Phosphorous, Potassium, Sodium and Sulfur).	\$126.00	\$138.60
SW-PACK-067	Speciated Arsenic Includes toxic arsenic species AsV and AsIII determination using HPLC-ICPMS (Total Arsenic analysis also included) 1% of volume HCl preservation in PP.	\$367.50	\$404.25
SW-PACK-068	Speciated Chromium Includes toxic hexavalent chromium species CrVI and CrIII determination using HPLC-ICPMS (Total Chromium analysis also included) 1 M NaOH preservation (approx. 3 Drops/30 mL to adjust pH to 8.0–9.5) in PP.	\$367.50	\$404.25
SW-PACK-066	Speciated Mercury Includes toxic mercury species Methyl Mercury and Hg <sup>2+</sup> determination using HPLC-ICPMS. (Total Mercury analysis also included) 1% of volume HCl preservation in glass jar.	\$367.50	\$404.25
SW-PACK-047	Specific - Rare Earth - As Supplied (ICPMS) Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.	\$78.75	\$86.63
SW-PACK-048	Specific - Rare Earth - Dissolved (filtered then acidified) (ICPMS) Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.	\$84.00	\$92.40
SW-PACK-049	Specific - Rare Earth - Total Available/Acid Soluble (acidified) (ICPMS) Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.	\$84.00	\$92.40
SW-PACK-050	Specific - Rare Earth - Total Recoverable (digested with nitric acid) (ICPMS) Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.	\$89.25	\$98.18

Single tests may require sample preparation.

ITEM CODE	INDIVIDUAL METAL TESTS	PRICE	PRICE
ITEM CODE	INDIVIDUAL METAL TESTS	excl. GST	incl. GST
SW-SING-102	General Metals - As Supplied (external prep) Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-103	General Metals - Dissolved Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-104	General Metals - Total Available/Acid Soluble Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55

ITEM CODE	INDIVIDUAL METAL TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SW-SING-105	General Metals - Total Recoverable Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-133	General Metals - Total Acid Digestable Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-106	Non-Standard Metals - As Supplied Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.	\$15.75	\$17.33
SW-SING-107	Non-Standard Metals - Dissolved Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.	\$15.75	\$17.33
SW-SING-108	Non-Standard Metals - Total Available/Acid Soluble Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.	\$15.75	\$17.33
SW-SING-109	Non-Standard Metals - Total Recoverable Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.	\$15.75	\$17.33

ITEM CODE	RESIDUE SUITES	PRICE	PRICE
SW-PACK-072	Complete Waters Residue Screen Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residue)	\$220.00	\$242.00
SW-PACK-009	Pesticide Screen 1a Includes Organo-chlorines (OC), Organo-phosphates (OP).	\$73.50	\$80.85
SW-PACK-010	Pesticide Screen 1b Includes Organo-chlorines (OC), Organo-phosphates (OP) and Polychlorinated biphenyls (PCB).	\$94.50	\$103.95
SW-PACK-024	Pesticide Screen 2a - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC) and Organo-phosphates (OP).	\$136.50	\$150.15
SW-PACK-027	Pesticide Screen 2b - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls (PCB).	\$147.00	\$161.70
SW-PACK-059	Pesticide Screen 3 - In Oil (Detection est. < 10 ppm) Includes Organo-chlorines (OC), Organo-phosphates (OP). Note: 25 mL required.	\$157.50	\$173.25
SW-PACK-075	Pesticides/Residue Screen – In Oil (Detection 0.1 ppm) Includes Organo-chlorines (OC), Organo-phosphates (OP) and a Multi-residue scan. Note: 25 mL required.	\$189.00	\$207.90

Single tests may require sample preparation

	Single tests may re		
ITEM CODE	INDIVIDUAL RESIDUE TESTS	PRICE	PRICE
TIEM CODE	INDIVIDUAL RESIDUE TESTS	excl. GST	incl. GST
SW-SING-116	Glyphosate (Round Up)	\$170.00	\$187.00
SW-SING-098	Herbicides Phenoxy Acid	\$178.50	\$196.35
SW-SING-062	Hydrocarbons - BTEX (Equivalent to TPH C6-C10)	\$52.50	\$57.75
SW-SING-008	Hydrocarbons - Polycyclic Aromatic Hydrocarbons (PAH)	\$68.25	\$75.08
SW-SING-063	Hydrocarbons - Total Petroleum (TPH C10-C40)	\$52.50	\$57.75
SW-SING-064	Organo-chlorines (OC)	\$68.25	\$75.08
SW-SING-113	Organo-chlorines (OC) - In Oil	\$126.00	\$138.60
	Note: 25 mL required.		
SW-SING-096	Organo-chlorines (OC) - Low Level	\$94.50	\$103.95
SW-SING-065	Organo-phosphates (OP)	\$68.25	\$75.08
SW-SING-114	Organo-phosphates (OP) - In Oil Note: 25 mL required.	\$126.00	\$138.60
SW-SING-097	Organo-phosphates (OP) - Low Level	\$94.50	\$103.95
SW-SING-117	Organotins (MBT, TBT, DBT)	\$273.00	\$300.30
SW-SING-121	PFAS in water – standard level 28 suite with detection 0.01-0.05 µg/L	\$157.50	\$173.25
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in water.	,	,
SW-SING-134	PFAS in water – LOW level 28 suite with detection 0.0002 μg/L	\$178.50	\$196.35
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in water.		
SW-SING-038	Phenol - Total	\$63.00	\$69.30
SW-SING-026	Phenolics - Speciated Phenols	\$94.50	\$103.95
SW-SING-066	Polychlorinated Biphenyls (PCB)	\$68.25	\$75.08
SW-SING-099	Polychlorinated Biphenyls (PCB) - Low Level	\$94.50	\$103.95
SW-SING-111	Semi-Volatile Organic Compounds (SVOC)	\$231.00	\$254.10
	SVOC includes Phenols.	4	4
SW-SING-037	Trihalomethanes (THM)	\$63.00	\$69.30
SW-SING-095	Volatile Halogenated Compounds (VHC)	\$94.50	\$103.95
SW-SING-094	Volatile Organic Compounds (VOC)	\$120.75	\$132.83
	VOC includes BTEX.		

ITEM CODE	INDIVIDUAL MICROBIAL TESTS	PRICE	PRICE
TIENT CODE	INDIVIDUAL MICRODIAL 12313	excl. GST	incl. GST
SW-SING-039	Bacteria - Faecal Coliforms	\$36.75	\$40.43
SW-SING-040	Bacteria - Total Coliforms	\$36.75	\$40.43
SW-SING-041	E.Coli - 24 h Incubation	\$42.00	\$46.20
SW-SING-042	Enterococci	\$47.25	\$51.98
SW-SING-036	Legionella	\$105.00	\$115.50
SW-SING-043	Listeria	\$63.00	\$69.30
SW-SING-044	Pseudomonas	\$47.25	\$51.98
SW-SING-045	Salmonella	\$63.00	\$69.30
SW-SING-046	Total Plate Count	\$47.25	\$51.98

Single tests may require sample preparation.

	Single tests may re	quire sumple	preparation.
ITEM CODE	INDIVIDUAL NITROGEN TESTS	PRICE	PRICE
TIEWI CODE	INDIVIDUAL NITROGEN 1E313	excl. GST	incl. GST
SW-SING-047	Ammonium	\$21.00	\$23.10
SW-SING-048	Nitrate	\$21.00	\$23.10
SW-SING-049	Nitrite	\$21.00	\$23.10
SW-SING-050	NOx	\$21.00	\$23.10
SW-SING-051	Total Kjeldahl Nitrogen (TKN)	\$42.00	\$46.20
	Includes Total Nitrogen and NOx.		
SW-SING-052	Total Nitrogen (TN)	\$31.50	\$34.65
SW-SING-118	Total Nitrogen by LECO	\$31.50	\$34.65

Single tests may require sample preparation.

ITEM CODE SW-SING-142	INDIVIDUAL GENERAL TESTS	PRICE	PRICE
SW-SING-142		OVA CCT	inel CCT
	Absorbance (Wavelength 440 nm – Filtered 0.22 μm)	<b>excl. GST</b> \$21.00	incl. GST \$23.10
SW-SING-031	Acidity (Titratable)	\$18.90	\$20.79
	Includes pH.	,	,
SW-SING-022	Algae - Basic ID and Count (Blue Green Algae only) by Microscopic Identification	\$115.50	\$127.05
SW-SING-123	Algae - Full ID and Count by Microscopic Identification	\$168.00	\$184.80
SW-SING-075	Alkalinity - Bicarbonate	\$18.90	\$20.79
SW-SING-076	Alkalinity - Carbonate	\$18.90	\$20.79
SW-SING-077	Alkalinity - Total	\$18.90	\$20.79
SW-SING-110	Biochemical Oxygen Demand (BOD) - Dissolved	\$47.25	\$51.98
SW-SING-012	Biochemical Oxygen Demand (BOD) - Total	\$47.25	\$51.98
SW-SING-078	Carbon - Dissolved Organic (DOC)	\$52.50	\$57.75
SW-SING-079	Carbon - Total Organic (TOC)	\$52.50	\$57.75
SW-SING-119	Carbon - Total Organic (TOC) by LECO	\$52.50	\$57.75
SW-SING-013	Chemical Oxygen Demand (COD)	\$47.25	\$51.98
SW-SING-143	Chemical Oxygen Demand - Filtered (COD-F)	\$52.50	\$57.75
SW SING OOD	Filtered GFC 1.2 micron equivalent	440.00	420.70
SW-SING-080	Chloride - Available	\$18.90	\$20.79
SW-SING-081	Chlorine - Free	\$18.90	\$20.79
SW-SING-082	Chlorine - Total Residual Includes Total Residual Chlorine and Free Chlorine.	\$37.80	\$41.58
SW-SING-017	Chlorophyll "a" and Algal Biomass	\$56.70	\$62.37
SW-SING-030	Chromium VI - Hexavalent	\$37.80	\$41.58
	Speciation by a screening colourimetric technique which may be subject to matrix interference.  Refer to separate analysis codes for speciation using HPLC-ICPMS analysis.	φ37.00	ψ11.30
SW-SING-073	Colour - Apparent	\$14.70	\$16.17
SW-SING-074	Colour - True	\$14.70	\$16.17
SW-SING-056	Conductivity - Electrical	\$10.50	\$11.55
SW-SING-029	Cyanide - Total	\$52.50	\$57.75
SW-SING-083	Fluoride	\$31.50	\$34.65
SW-SING-116	Glyphosate (Round Up)	\$170.00	\$187.00
SW-SING-084	Hardness	\$18.90	\$20.79
SW-SING-124	Insoluble Matter – Liquid Fertilisers	\$31.50	\$34.65
	Includes insoluble matter mg/L.		
SW-SING-027	lodine - Total	\$63.00	\$69.30
SW-SING-085	Moisture (105°C)	\$21.00	\$23.10
SW-SING-058	Oxygen - Dissolved (DO)	\$10.50	\$11.55
SW-SING-115	Particle Size Analysis - Laser Diffraction  Particle size analysis using a Malvern Mastersizer 3000. Span 0.01 to 3000 µm. Size classes dictated by client requirments. Price dependent upon application and sample amounts.	\$178.50	\$196.35
SW-SING-055	рН	\$10.50	\$11.55
SW-SING-054	Phosphorus - Available Orthophosphate	\$21.00	\$23.10
SW-SING-053	Phosphorus - Total (TP) Autoclave digestion and analysis by FIA.	\$31.50	\$34.65
SW-SING-059	Redox	\$10.50	\$11.55
SW-SING-057	Salinity	\$10.50	\$11.55
SW-SING-141	Silica Gel Clean-up TRH Includes TRH C9-C40 Natural/Petroleum differentiation – silica gel cleanup (removes the biogenic, more polar material leaving the petrogenic based TRH).	\$115.50	\$127.05
SW-SING-122	Silica - Total Includes specialised NaOH high temperature fusion extraction of silicon as per dry weight.	\$157.50	\$173.25
SW-SING-120	Specific Gravity - Hydrometer method Includes specific gravity and temperature on sample volumes greater than 200 mL.	\$21.00	\$23.10
SW-SING-035	Specific Gravity - Volumetric method Includes specific gravity and temperature on samples with small volumes.	\$21.00	\$23.10

ITEM CODE	INDIVIDUAL GENERAL TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SW-SING-067	Sulfide - Dissolved	\$31.50	\$34.65
SW-SING-068	Sulfide - Total	\$31.50	\$34.65
SW-SING-100	Sulfite - Dissolved	\$23.10	\$25.41
SW-SING-101	Sulfite - Total	\$23.10	\$25.41
SW-SING-028	Surfactant - MBAS	\$52.50	\$57.75
SW-SING-021	Tannin/Lignin	\$63.00	\$69.30
SW-SING-060	Temperature	\$10.50	\$11.55
SW-SING-061	Total Dissolved Salts (TDS) (calc)	\$10.50	\$11.55
SW-SING-034	Total Dissolved Solids (TDS) Includes filtering and TDS by evaporation.	\$31.50	\$34.65
SW-SING-118	Total Nitrogen by LECO	\$31.50	\$34.65
SW-SING-011	Total Oils and Grease (TOG) - Hexane extractable	\$52.50	\$57.75
SW-SING-033	Total Solids	\$31.50	\$34.65
SW-SING-003	Total Suspended Solids (TSS)	\$21.00	\$23.10
SW-SING-069	Turbidity	\$12.60	\$13.86
SW-SING-070	UV Absorbency	\$26.25	\$28.88
SW-SING-072	UV Transmission - Filtered	\$26.25	\$28.88
SW-SING-071	UV Transmission - Unfiltered	\$26.25	\$28.88
SW-SING-005	Volatile Suspended Solids (VSS)	\$36.75	\$40.43

Single tests may re	equire sample	preparation.
INDIVIDUAL STARIE ISOTODE TESTS	PRICE	PRICE
INDIVIDUAL STABLE ISOTOPE TESTS	excl. GST	incl. GST
Dissolved Gas Analysis	\$52.50	\$57.75
Includes N <sub>2</sub> /Ar non-isotope ratio measurement.		
Dissolved Nitrogen - 15N Isotopes	\$78.75	\$86.63
Includes Dissolved N <sub>2</sub> isotope testing - ratio masses 29/28 and 30/28.		
Dissolved Nitrous Oxide - 15N Isotopes	\$131.25	\$144.38
Hydrogen and Oxygen Isotopes in Water - 2H and 18O Isotopes	\$105.00	\$115.50
Hydrogen Isotopes in Water - 2H Isotopes	\$60.00	\$66.00
Nitrate Stable Isotope Analysis - 15N & 18O Isotopes	\$157.50	\$173.25
- , , , ,		
Oxygen Isotopes in Water - 180 Isotopes	\$60.00	\$66.00
Total Inorganic Carbon (TIC) - 13C Isotopes	\$52.50	\$57.75
Includes both saline and non-saline waters.		
Total Organic Carbon (TOC) - 13C Isotopes	\$84.00	\$92.40
Includes both saline and non-saline waters.		
	INDIVIDUAL STABLE ISOTOPE TESTS  Dissolved Gas Analysis Includes N <sub>2</sub> /Ar non-isotope ratio measurement.  Dissolved Nitrogen - 15N Isotopes Includes Dissolved N <sub>2</sub> isotope testing - ratio masses 29/28 and 30/28.  Dissolved Nitrous Oxide - 15N Isotopes  Hydrogen and Oxygen Isotopes in Water - 2H and 18O Isotopes  Hydrogen Isotopes in Water - 2H Isotopes  Nitrate Stable Isotope Analysis - 15N & 18O Isotopes Includes Delta 15N and delta 18O of nitrate fresh and saline water samples (includes nitrate anlysis to confirm minimum 0.14 mg/L N required for isotope analysis).  Oxygen Isotopes in Water - 18O Isotopes  Total Inorganic Carbon (TIC) - 13C Isotopes Includes both saline and non-saline waters.  Total Organic Carbon (TOC) - 13C Isotopes	Dissolved Gas Analysis Includes N <sub>2</sub> /Ar non-isotope ratio measurement.  Dissolved Nitrogen - 15N Isotopes Includes Dissolved N <sub>2</sub> isotope testing - ratio masses 29/28 and 30/28.  Dissolved Nitrous Oxide - 15N Isotopes  Hydrogen and Oxygen Isotopes in Water - 2H and 18O Isotopes  Nitrate Stable Isotope Analysis - 15N & 18O Isotopes Includes Delta 15N and delta 18O of nitrate fresh and saline water samples (includes nitrate anlysis to confirm minimum 0.14 mg/L N required for isotope analysis).  Oxygen Isotopes in Water - 18O Isotopes  Total Inorganic Carbon (TIC) - 13C Isotopes  Total Organic Carbon (TOC) - 13C Isotopes  \$84.00

### **ACID SULFATE ANALYTICAL TESTING**

#### **SOIL TESTING**

All suites have preparation and digest/extract charges included.

	All suites have preparation and digest	:/extract char	ges included.
ITEM CODE	SOIL SUITES	PRICE excl. GST	PRICE incl. GST
AS-PACK-007	Acid Sulfate pH-F and pH-FOX Testing Includes moisture content, drying and ring mill grinding. Field based technique modified for lab use. Results should be used in conjunction with field descriptions to indicate which samples require further laboratory testing.	\$21.00	\$23.10
AS-PACK-008	Acid Sulfate Soil Net Acidity - S-CR (National Guidance 2018)  Includes Net Acidity and liming rate with analysis of Reduced Inorganic Sulfur (Chromium Reducible Sulfur; S-CR),  KCl extractable pH (pH-KCl), Actual Acidity (Titratable Actual Acidity; TAA) where pH-KCl < 6.5, Retained Acidity  (Net Acid Soluble Sulfur; S-NAS) where pH-KCl < 4.5 and Acid Neutralising Capacity (ANC-BT) where pH-KCl => 6.5.	\$94.50	\$103.95
AS-PACK-013	Acid Sulfate Soil Net Acidity - S-POS (National Guidance 2018) Includes Net Acidity and liming rate with analysis of Reduced Inorganic Sulfur (Peroxide Oxidisable Sulfur; S-POS), KCI extractable pH (pH-KCI), Actual Acidity (Titratable Actual Acidity; TAA) where pH-KCI < 6.5, Retained Acidity (Net Acid Soluble Sulfur; S-NAS) where pH-KCI < 4.5 and Acid Neutralising Capacity (ANC-BT) where pH-KCl => 6.5.	\$136.50	\$150.15
AS-PACK-011	Acid Sulfate Soil Net Acidity for Treatment Verification (National Guidance 2018) Includes Net Acidity and liming rate with analysis of Reduced Inorganic Sulfur (Chromium Reducible Sulfur; S-CR), KCl extractable pH (pH-KCl), Actual Acidity (Titratable Actual Acidity; TAA) where pH-KCl < 6.5 and Acid Neutralising Capacity (ANC-BT). Client must provide pre-liming ANC-BT. Routine TAT of 3 days with a reduced surcharge of 50% for 24 h TAT (limited to 15 samples).	\$105.00	\$115.50
AS-PACK-004	Acid Volatile Sulfide and Reduced Inorganic Sulfur Includes Acid Volatile Sulfide (S-AV) and Chromium Reducible Sulfur (S-CR).	\$126.00	\$138.60
AS-PACK-001	Actual and Potential Acidity Includes analysis of Reduced Inorganic Sulfur (Chromium Reducible Sulfur; S-CR), KCl extractable pH (pH-KCl), Actual Acidity (Titratable Actual Acidity; TAA) where pH-KCl < 6.5. If Net Acidity and Liming Rate are required AS-PACK-008 should be used instead of AS-PACK-001.	\$73.50	\$80.85
SS-PACK-054	Incubation - Chip Tray  This method is used to assess the effectiveness of a soil"s Acid Neutralising Capacity (ANC). Includes pH-F before and pH-INC after 9 weeks incubation, with further incubation to 19 weeks where 4 <= pH-INC <= 6.5.	\$63.00	\$69.30
SS-PACK-073	Incubation - Slab  This method is used to assess the effectiveness of a soil"s Acid Neutralising Capacity (ANC). The incubation is maintained and pH-INC taken fortnightly until the soil pH changes by at least 0.5 pH unit to below 4, or for at least 8 weeks until pH-INC is stable.	\$189.00	\$207.90
AS-PACK-012	Sulfate to Chloride Ratio Includes Sulfate and Chloride (1:1 water) and Sulfate/Chloride Ratio.	\$52.50	\$57.75

ITEM CODE	SOIL PREPARATIONS	PRICE	PRICE
TIENT CODE		excl. GST	incl. GST
SS-PREP-010	Acid Sulfate Soil - Sample Preparation - Required for all individual testing Includes 80°C moisture content, drying and ring mill grinding. Required for all samples analysed on a dry weight basis.	\$10.50	\$11.55
SS-PREP-016	Fizz Test for Carbonates This method is used to indicate the presence of carbonates.	\$3.15	\$3.47
SS-SING-001	Moisture Content - As Received (%) at 105°C  Oven-dry moisture content as a per cent of the 'as-received' sample (105°C).	\$10.50	\$11.55
SS-PREP-017	Total Dry Weight - Oven dry basis  Mass of the sample dried at 105°C. Used to calculate bulk density when cores are supplied.	\$10.50	\$11.55

All samples require Sample Preparation (SS-PREP-010) unless a discounted testing suite is selected.

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ITEM CODE	INDIVIDUAL SOIL TESTS	PRICE excl. GST	PRICE incl. GST
SS-SING-090	Acid Neutralising Capacity (ANC-BT) This method is used to measure Acid Neutralising Capacity (ANC-BT) where pH-KCl > 6.5.	\$31.50	\$34.65
SS-SING-201	Acid Neutralising Capacity by Total Inorganic Carbon (C-IN)  This method is used to measure Acid Neutralising Capacity (ANC) where the pH-KCl > 6.5.	\$47.25	\$51.98
SS-SING-250	Acid Sulfate Soil Field pH-W and pH-FOX Includes pH-W and pH-FOX on raw sample, as supplied. Results should be used in conjunction with field descriptions to indicate which samples require further laboratory testing.	\$10.50	\$11.55

ITEM CODE	INDIVIDUAL SOIL TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-089	Acid Volatile Sulfide (AVS)  This method measures Acid Volatile Sulfides (S-AV). All samples should be frozen on collection and transported in an esky with freezer bricks.	\$52.50	\$57.75
SS-SING-088	Chromium Reducible Sulfur (CRS)  This method measures Reduced Inorganic Sulfur (S-CR) and is not subject to interferences by sulfate minerals and organic matter.	\$52.50	\$57.75
SS-SING-064	Electrical Conductivity (1:5 water)	\$15.75	\$17.33
SS-SING-246	Elemental Sulfur This includes Elemental Sulfur (S-E). 100% surcharge for single samples to cover setup costs.	\$147.00	\$161.70
SS-SING-093	Net Acid Soluble Sulfur (S-NAS)  This method estimates Retained Acidity where pH-KCl < 4.5.	\$31.50	\$34.65
SS-SING-095	Titratable Actual Acidity (TAA) This method measures Actual Acidity. Titratable Actual Acidity (TAA) titrated to pH 6.5.	\$31.50	\$34.65
SS-SING-097	Titratable Actual Acidity (TAA) and KCI Extractable Sulfur (S-KCI)	\$36.75	\$40.43
SS-SING-101	pH and Sulfate (1:1 water) This method is used for classification of actual acid sulfate soil materials.	\$31.50	\$34.65
SS-SING-202	pH - KCl extractable (pH-KCl)  This method is used to determine what further testing is required for Net Acidity calculations: Titratable Actual Acidity (TAA; pH-KCl < 6.5), Net Acid Soluble Sulfur (S-NAS; pH-KCl < 4.5), Acid Neutralising Capacity (ANC-BT or C-IN; pH-KCl => 6.5).	\$21.00	\$23.10
SS-SING-098	Sulfur - KCI Extractable This method is used to measure sulfur concentration after Titratable Actual Acidity (TAA) analysis.	\$10.50	\$11.55
SS-SING-163	Peroxide Oxidisable Sulfur (S-POS)  This method estimates Reduced Inorganic Sulfur. It can include interferences from sulfate minerals and organic matter.	\$89.25	\$98.18
SS-SING-208	Texture - Full (NCST, 2009) This method is used for acid sulfate soil action criteria.	\$26.25	\$28.88

### **ROCK TESTING**

All suites have preparation and digest/extract charges included.

ITEM CODE	ROCK SUITES	PRICE excl. GST	PRICE incl. GST
AS-PACK-010	Acid Sulfate Rock with Chromium Reducible Sulfur Includes Net Acid Producing Potential (NAPP), NAG pH and Net Acid Generation (NAG) (single addition peroxide acidity), Acid Neutralising Capacity (ANC-BT) and Reduced Inorganic Sulfur (S-CR) (combined in NAPP equation).	\$115.50	\$127.05
AS-PACK-006	Acid Sulfate Rock with Total Sulfur Includes Net Acid Producing Potential (NAPP), NAG pH and Net Acid Generation (NAG) (single addition peroxide acidity), Acid Neutralising Capacity (ANC-BT) and Total Sulfur (combined in NAPP equation).	\$94.50	\$103.95

ITEM CODE	ROCK PREPARATIONS	PRICE	PRICE
		excl. GST	incl. GST
SS-PREP-010	Acid Sulfate Soil - Sample Preparation - Required for all individual testing	\$10.50	\$11.55
	Includes 80°C moisture content, drying and ring mill grinding. Required for all samples analysed on a dry weight		
SS-SING-001	Moisture Content - As Received (%) at 105°C	\$10.50	\$11.55
	Oven-dry moisture content as a per cent of the 'as-received' sample (105°C).		

 $All \ samples \ require \ Sample \ Preparation \ (SS-PREP-010) \ unless \ a \ discounted \ testing \ suite \ is \ selected.$ 

ITEM CODE	INDIVIDUAL ROCK TESTS	PRICE excl. GST	PRICE incl. GST
SS-SING-090	Acid Neutralising Capacity (ANC-BT)  This method is used to measure Acid Neutralising Capacity (ANC-BT) where pH-KCl > 6.5.	\$31.50	\$34.65
SS-SING-201	Acid Neutralising Capacity by Total Inorganic Carbon (C-IN)  This method is used to measure Acid Neutralising Capacity (ANC) where the pH-KCl > 6.5.	\$47.25	\$51.98
SS-SING-088	Chromium Reducible Sulfur (CRS)  This method measures Reduced Inorganic Sulfur (S-CR) and is not subject to interferences by sulfate minerals and organic matter.	\$52.50	\$57.75
SS-SING-102	<b>Net Acid Generation (NAG)</b> This method is used to determine the Net Acid Generation (NAG) of rock material. Includes NAGpH.	\$52.50	\$57.75
SS-SING-144	Total Sulfur (TS) by LECO	\$21.00	\$23.10

### **WATER TESTING**

	All suites flave preparation and diges	cy extraor ona.	Bes meradear
ITEM CODE	WATER SUITES	PRICE	PRICE
HEW CODE	WATER SOITES	excl. GST	incl. GST
SW-PACK-016	Acid Sulfate Waters	\$73.50	\$80.85
	Includes pH, EC, Total Dissolved Salts (TDS) (calculation); Titratable Acidity; Dissolved Iron and Aluminium; Sulfate, Chloride, Sulfate:Chloride Ratio.		
SW-PACK-029	Basic Metals Scan - Total Available / Acid Soluble (acidified) (ICPMS)	\$63.00	\$69.30
	Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.		
SW-PACK-040	Basic Metals Scan - Dissolved (filtered then acidified) (ICPMS)	\$63.00	\$69.30
	Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.		
SW-PACK-044	Extra Metals Scan - Dissolved (filtered then acidified) (ICPMS)	\$63.00	\$69.30
	Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium,		
	Thallium, Thorium, Uranium and Vanadium.		
SW-PACK-045	Extra Metals Scan - Total Available/Acid Soluble (acidified) (ICPMS)	\$63.00	\$69.30
	Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.		
SW-PACK-048	Specific - Rare Earth - Dissolved (filtered then acidified) (ICPMS)	\$84.00	\$92.40
	Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium,		
	Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.		
SW-PACK-049	Specific - Rare Earth - Total Available / Acid Soluble (acidified) (ICPMS)	\$84.00	\$92.40
	Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium,		
	Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.		

### **AGRICULTURAL ANALYTICAL SERVICES**

#### **SOIL TESTING**

	All suites have preparation and digest/extract charges inclu			
ITEM CODE	ROUTINE SOIL SUITES	PRICE excl. GST	PRICE incl. GST	
RA-PACK-001	Agricultural - Albrecht/Reams Includes pH and EC (1:5 water); Available Calcium, Magnesium, Potassium, Ammonium, Nitrate, Phosphate, Sulfur; Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; Total Carbon (TC), Total Nitrogen (TN), Organic Matter, TC/TN Ratio; Basic Colour, Basic Texture.	\$115.50	\$127.05	
RA-PACK-002	Agricultural - Albrecht/Reams plus Totals Includes pH and EC (1:5 water); Available Calcium, Magnesium, Potassium, Ammonium, Nitrate, Phosphate, Sulfur; Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; Total Carbon (TC), Total Nitrogen (TN), TC/TN Ratio, Organic Matter; Basic Colour, Basic Texture; Total Sodium, Potassium, Calcium, Magnesium, Sulfur, Phosphorus, Silicon, Cobalt, Molybdenum, Selenium, Zinc, Manganese, Iron, Copper, Boron and Aluminium.	\$168.00	\$184.80	
RA-PACK-003	Agricultural - Albrecht/Reams plus Totals and Heavy Metals Includes pH and EC (1:5 water); Available Calcium, Magnesium, Potassium, Ammonium, Nitrate, Phosphate, Sulfur; Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; Total Carbon (TC), Total Nitrogen (TN), TC/TN Ratio, Organic Matter; Basic Colour, Basic Texture; Total Sodium, Potassium, Calcium, Magnesium, Sulfur, Phosphorus, Silicon, Cobalt, Molybdenum, Selenium, Zinc, Manganese, Iron, Copper, Boron and Aluminium; Heavy Metals Silver, Arsenic, Lead, Chromium, Nickel, Cadmium, Mercury.	\$189.00	\$207.90	
RA-PACK-014	Agricultural - Standard C Includes pH and EC (1:5 water); pH (1:5 CaCl); Available (Ammonium, Nitrate, Sulfur); Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Colwell Phosphorus; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; Total Carbon (TC), Total Nitrogen (TN), TC/TN Ratio, Organic Matter; Basic Colour, Basic Texture.	\$105.00	\$115.50	
RA-PACK-015	Agricultural - Sugarcane Reefwise Includes pH and EC (1:5 water); pH (1:5 CaCl); Available Ammonium, Nitrate, Sulfur; Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Nitric Acid Extractable Potassium; Colwell Phosphorus, Phosphorous Buffer Index (PBI), BSES Phosphorus, Silicon; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; HCl Extractable Zinc; Total Carbon (TC), Total Nitrogen (TN), TC/TN Ratio, Organic Matter; Organic Carbon (W-B); Basic Colour, Basic Texture.	\$147.00	\$161.70	
RA-PACK-017	Agricultural Basic Home Includes pH and EC (1:5 water); Exchangeable Sodium, Potassium, Calcium, Magnesium, Cation Exchange Capacity; Bray I Phosphorus; Total Carbon (TC), Total Nitrogen (TN), TC/TN Ratio, Organic Matter.	\$63.00	\$69.30	

ITEM CODE	OTHER SOIL TESTS	PRICE	PRICE
TIEWI CODE	OTHER SOIL TESTS	excl. GST	incl. GST
RA-PACK-004	Agricultural - Standard A-1 Includes pH and EC (1:5 water); Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Bray I Phosphorus; Total Carbon (TC), Total Nitrogen (TN), Organic Matter; Basic Colour, Basic Texture.	\$78.75	\$86.63
RA-PACK-018	Agricultural - Standard A-2 Includes pH and EC (1:5 water); Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Colwell Phosphorus; Total Carbon (TC), Total Nitrogen (TN), Organic Matter; Basic Colour, Basic Texture.	\$78.75	\$86.63
RA-PACK-013	Agricultural - Standard B Includes pH and EC (1:5 water); Available Ammonium, Nitrate, Sulfur; Exchangable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Hydrogen, Cation Exchange Capacity; Bray I and II Phosphorus; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; Basic Colour, Basic Texture.	\$94.50	\$103.95
RA-PACK-041	Agricultural Sugar Cane Basic Includes Basic Texture, Basic Colour, Organic Carbon (W/B), pH/EC (H <sub>2</sub> O), pH (CaCl <sub>2</sub> ), EC-SE (Calculation), Phosphorus (Colwell, BSES), Phosphorus Buffer Index, Potassium (Nitric), Exchangeable Cations (Ammonium Acetate), Aluminium (KCI), Sulfur (MCP), and Silicon (BSES, CaCl <sub>2</sub> ).	\$126.00	\$138.60

ITEM CODE	OTHER SOIL TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
RA-PACK-043	Agricultural Sugar Cane Full Includes Basic Texture, Basic Colour, Organic Carbon (W/B), pH/EC (H <sub>2</sub> O), pH (CaCl <sub>2</sub> ), EC-SE (Calculation), Phosphorus (Colwell, BSES), Phosphorus Buffer Index, Potassium (Nitric), Exchangeable Cations (Ammonium Acetate), Aluminium (KCl), Sulfur (MCP), Silicon (BSES, CaCl <sub>2</sub> ), Zinc (HCl), Iron, Copper, Zinc, Manganese (DTPA), Chloride (H <sub>2</sub> O), Ammonium, Nitrate (KCl), Buffer pH.	\$168.00	\$184.80
RA-PACK-042	Agricultural Sugar Cane Standard Includes Basic Texture, Basic Colour, Organic Carbon (W/B), pH/EC (H <sub>2</sub> O), pH (CaCl <sub>2</sub> ), EC-SE (Calculation), Phosphorus (Colwell, BSES), Phosphorus Buffer Index, Potassium (Nitric), Exchangeable Cations (Ammonium Acetate), Aluminium (KCI), Sulfur (MCP), Silicon (BSES, CaCl <sub>2</sub> ), Zinc (HCI) and Iron, Copper, Zinc, Manganese (DTPA).	\$147.00	\$161.70
SS-PACK-113	Haney – Basic Carbon and Nitrogen Includes Water extractable Nitrogen (Carbon, Inorganic Nitrogen (Calc), Organic Nitrogen (Calc), Water extractable Organic Carbon:Organic Nitrogen Ratio (Calc).	\$63.00	\$69.30
SS-PACK-114	Haney – Basic Nutrients Includes Haney (H3A) extractable Nitrate, Ammonium, Calcium, Magnesium, Potassium, Sodium, Phosphorus, Sulfur, Zinc, Manganese, Iron, Copper, Aluminium.	\$52.50	\$57.75
SS-PACK-115	Haney – Basic Soil Health Includes Solvita CO₂ respiration, Water extractable Nitrate, Ammonium; Total Water extractable Nitrogen and Organic Carbon; Inorganic Nitrogen (Calc), Organic Nitrogen (Calc), Water extractable Organic Carbon: Organic Nitrogen Ratio (Calc) and Haney Soil Health Score (Calc).	\$105.00	\$115.50
SS-PACK-116	Haney – Routine Soil Health Includes Solvita CO <sub>2</sub> respiration, Water extractable Nitrate, Ammonium; Total Water extractable Nitrogen and Organic Carbon; Inorganic Nitrogen (Calc), Organic Nitrogen (Calc), Water extractable Organic Carbon: Organic Nitrogen Ratio (Calc) and Haney Soil Health Score (Calc). Haney (H3A) extractable Nitrate, Ammonium, Calcium, Magnesium, Potassium, Sodium, Phosphorus, Sulfur, Zinc, Manganese, Iron, Copper, Aluminium.	\$157.50	\$173.25
SS-PACK-117	Haney – Total Soil Health Includes Solvita CO <sub>2</sub> respiration, Water extractable Nitrate, Ammonium; Total Water extractable Nitrogen and Organic Carbon; Inorganic Nitrogen (Calc), Organic Nitrogen (Calc), Water extractable Organic Carbon: Organic Nitrogen Ratio (Calc) and Haney Soil Health Score (Calc). Haney (H3A) extractable Nitrate, Ammonium, Calcium, Magnesium, Potassium, Sodium, Phosphorus, Sulfur, Zinc, Manganese, Iron, Copper, Aluminium. Also includes pH, EC; Total Carbon, Total Nitrogen, estimated Organic Matter and Labile Carbon.	\$210.00	\$231.00
RA-PACK-019	Macadamia Soil Testing Includes pH and EC (1:5 water); Available (Sulfur); Exchangeable Sodium, Potassium, Calcium, Magnesium, Hydrogen, Aluminium, Cation Exchange Capacity; Colwell Phosphorus, Phosphorus Buffer Index; Available Micronutrients Zinc, Manganese, Iron, Copper, Boron, Silicon; Total Carbon (TC), Total Nitrogen (TN), TC/TN Ratio, Organic Matter; Basic Colour, Basic Texture.	\$105.00	\$115.50
NT-PACK-005	Mehlich III Basic Includes pH and EC (1:5 water); Chloride Estimate, Extractable Mehlich III Phosphorus, Sodium, Potassium, Calcium, Magnesium, Cation Exchange Capacity, Exchangeable Sodium Percentage.	\$57.75	\$63.53
SS-PACK-037	Mehlich III Exchangeable Cations and Micronutrients Includes Mehlich III Extractable Sodium, Potassium, Calcium, Magnesium, Phosphorus, Sulfur, Aluminium, Iron, Copper, Zinc, Manganese, Boron.	\$63.00	\$69.30
NT-PACK-001	Mehlich III Standard Includes pH and EC (1:5 water); Available Calcium, Magnesium, Potassium, Ammonium, Nitrate, Phosphate, Sulfur; Mehlich III Extractable Sodium, Potassium, Calcium, Magnesium, Hydrogen/Aluminium (calculation) Cation Exchange Capacity; Mehlich III Extractable Phosphorus, Bray II Phosphorus; Total Nitrogen (TN), Total Carbon (TC), Organic Matter; Available Micronutrients Iron, Copper, Zinc, Manganese, Silicon, Boron; Paramagnetism; Basic Colour and Basic Texture.	\$105.00	\$115.50
SS-PACK-140	Microbial Biomass Assessment - Soil Includes biomasses of 12 microbial groups relevant for soil quality, health and function.	\$271.95	\$299.15
SS-PACK-167	MIC-01: Basic Analysis of Microbial Activity in Soil (Plate Count)  Preferably examined in relation to texture, moisture content, pH, C:N ratio, and organic matter content.  Includes Total aerobic bacteria, Total fungi (moulds), Gram negative bacteria, Filamentous actinomycetes, Yeasts.	\$94.50	\$103.95
SS-PACK-168	MIC-02: Extended Microbial Activity in Soil (Plate Count)  Preferably examined in relation to texture, moisture content, pH, C:N ratio, and organic matter content.  Includes Total aerobic bacteria, Filamentous actinomycetes, Actinobacteria, Gram negative bacteria, Filamentous fungi (Moulds), Yeasts, Lactic acid bacteria, Total Anaerobes (includes facultative anaerobes), Sulfite Reducing Anaerobes.	\$199.50	\$219.45
SS-PACK-014	Pesticide Screen 1b Includes Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls (PCB).	\$105.00	\$115.50
SS-PACK-175	Phytophthora and Pythium  Note: 500 g of sample is required to complete testing.	\$231.00	\$254.10

ITEM CODE	OTHER SOIL TESTS (Cont.)	PRICE	PRICE
RA-PACK-007	Reef Wise Pack - 1 Includes Colwell Phosphorus; Phosphorous Buffer Index (PBI); BSES Extractable Phosphorous; Organic Carbon (W-B).	\$63.00	\$69.30
RA-PACK-016	Reef Wise Pack - 2 Includes Colwell Phosphorus; Phosphorus Buffer Index (PBI); BSES Extractable Phosphorus, Silicon; CaCl <sub>2</sub> Extractable Silicon; HNO <sub>3</sub> Extractable Potassium; HCI Extractable Zinc; Organic Carbon (W-B).	\$78.75	\$86.63
SS-PACK-118	Residue Screen - Extended (Compost, plant leaf, stem, wood material, feed) Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids – 80+ Residues + Herbicide and Fungicide – 40+ Residue).	\$294.00	\$323.40
SS-PACK-196	Residue Screen – Extended (Soils only) Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids – 80+ Residues + Herbicide and Fungicide – 40+ Residue).	\$190.00	\$209.00
SS-PACK-119	Residue Screen - Complete + Glyphosate Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids – 80+ Residues + Herbicide and Fungicide – 40+ Residue) + Glyphosate Screens.	\$450.00	\$495.00
SS-PACK-182	Soil/Sediment Contamination Assessment Includes Metals (Total Available Al, As, Cd, Cr, Cu, Fe Pb, Mn, Hg, Ni, Se, Ag, Zn), PAH, TPH, BTEX, and speciated Phenolics.	\$231.00	\$254.10
SS-PACK-052	Soluble Nitrogen - Soil Includes KCl extractable Nitrate and Ammonium.	\$42.00	\$46.20
SS-PACK-045	Total Acid Extractable - Heavy Metals (ICPMS) Includes Lead, Cadmium, Arsenic, Nickel, Aluminium, Mercury, Chromium, Silver, Selenium.	\$52.50	\$57.75
RA-PACK-009	Total Acid Extractable Cobalt, Molybdenum, Selenium	\$31.50	\$34.65
RA-PACK-012	Total Acid Extractable Cobalt, Molybdenum, Selenium, Phosphorus	\$42.00	\$46.20
RA-PACK-008	Total Acid Extractable Elements Includes Sodium, Potassium, Calcium, Magnesium, Sulfur, Phosphorus, Silicon, Cobalt, Molybdenum, Selenium, Zinc, Manganese, Iron, Copper, Boron, Aluminium.	\$84.00	\$92.40

No additional charges if a suite is selected.

ITEM CODE	INDIVIDUAL COLL TESTS	PRICE	PRICE
ITEM CODE	INDIVIDUAL SOIL TESTS	excl. GST	incl. GST
SS-PREP-013	Biosecurity Handling Charge	\$105.00	\$115.50
SS-SING-038	Chloride - Soluble	\$31.50	\$34.65
SS-SING-218	Colour (Munsell Soil Colour Classification)	\$8.40	\$9.24
SS-SING-085	Emerson Dispersion Index (Loveday and Pyle, 1973)	\$47.25	\$51.98
SS-PREP-015	Exchangeable Cation Pre-treatment for Soluble Salts Includes pretreatment with aqueous ethanol and aqueous glycerol to remove soluble salts. Recommended on soils with EC > 0.3 dS/m.	\$10.50	\$11.55
SS-PREP-020	Exchangeable Cation Suppression of Carbonates Includes pretreatment with aqueous ethanol and aqueous glycerol to remove soluble salts then extraction with 1 M Alcoholic NH <sub>4</sub> Cl to suppress solid phase carbonates. Testing according to Method 15C1 with other agricultural tests.	\$42.00	\$46.20
SS-SING-204	Fertility Report - Ferti-Tech Soil/Leaf Report Preparation	\$50.00	\$55.00
SS-SING-071	Fertility Report - Keycrobe Soil/Leaf Report Preparation	\$50.00	\$55.00
SS-SING-234	Fertility Report - Vital Soils Report Preparation	\$50.00	\$55.00
SS-SING-262	Microbiometer – Soil biomass measurement Includes estimates of Total Bacteria, Fungi and Fungi:Bacteria ratio. This test should only be done in conjunction with SS-PACK-167 or SS-PACK-168.	\$31.50	\$34.65
SS-SING-001	Moisture Content - As Received (%) at 105°C  Oven-dry moisture content as a per cent of the 'as-received' sample (105°C).	\$10.50	\$11.55
SS-SING-066	pH (1:5 CaCl <sub>2</sub> )	\$15.75	\$17.33
SS-SING-034	Phosphorus - Olsen Includes Olsen Phsophorous - a measure of the intensity of Phosphorus.	\$21.00	\$23.10
SS-SING-032	Phosphorus - Total Acid Extractable (includes preparation)	\$42.00	\$46.20
SS-SING-037	Phosphorus Buffer Index (PBI)	\$21.00	\$23.10
SS-SING-076	Potassium - Colwell	\$26.25	\$28.88
SS-PREP-018	Saturated Paste Extract Includes extraction of saturated paste (14A3). Please select required analytical parameters from the waters codes.	\$73.50	\$80.85
SS-SING-027	Silica - Total Includes specialised NaOH high temperature fusion extraction of silicon.	\$126.00	\$138.60
SS-SING-209	SOLVITA - Soil CO <sub>2</sub> Burst Includes measurement of carbon dioxide released from soil due to biological activity.	\$63.00	\$69.30

ITEM CODE	INDIVIDUAL SOIL TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-086	Texture - Australian Soil Classification (Isbell and NCST, 2016)	\$26.25	\$28.88
SS-PREP-007	Total Dry Weight - Air dry basis	\$6.30	\$6.93
	Mass of the sample dried at 40°C.		

### **SOIL CARBON TESTING**

All suites have preparation and digest/extract charges included.

ITEM CODE	SOIL CARBON SUITES	PRICE	PRICE
ITEM CODE	SOIL CARDON SOITES	excl. GST	incl. GST
SS-PACK-179	Total Organic Carbon (TOC) on Topsoils under 2021 CFI Methodology  In CFI methodology topsoil refers to the 0–30 cm layer, however, this should be selected on individual depth layers up to 30 cm in total. Includes Total Organic Carbon by LECO, gravel content, air-dry mass and gravimetric water content on the air-dry soil.	\$60.00	\$66.00
SS-PACK-180	Total Organic Carbon (TOC) on Subsoils under 2021 CFI Methodology  In CFI methodology subsoil refers to the 30+ cm layer however this should be selected on a depth layer of 30–100 cm only. Includes Total Organic Carbon by LECO, gravel content, air-dry mass and gravimetric water content on the air-dry soil.	\$90.00	\$99.00
SS-PACK-181	Total Organic Carbon (TOC) on Core segments under 2021 CFI Methodology  To be selected on core segments or soil layers 0–5 cm or 0–10 cm. Includes Total Organic Carbon by LECO, gravel content, air-dry mass and gravimetric water content on air-dry soil.	\$45.00	\$49.50
SS-PACK-187	Carbon - Total Organic by LECO plus Gravimetric Moisture Includes gravimetric moisture and TOC by LECO combustion.	\$50.00	\$55.00
SS-PACK-174	Inorganic (Carbonate) Carbon by LECO Includes Total Carbon (TC), Total Organic Carbon (TOC).	\$57.75	\$63.53

No additional charges if a suite is selected.

ITEM CODE	INDIVIDUAL SOIL CARBON TESTS	PRICE	PRICE
		excl. GST	incl. GST
SS-SING-018	Carbon - Labile	\$21.00	\$23.10
SS-SING-062	Carbon - Organic by Walkley Black	\$42.00	\$46.20
SS-SING-061	Carbon - Total Organic by LECO	\$31.50	\$34.65
SS-SING-276	Carbon - Total Organic by LECO plus PREP Includes sample preparation and TOC by LECO combustion.	\$40.00	\$44.00

### **FERTILISER TESTING**

ITEM CODE	FERTILISER SUITES	PRICE	PRICE
ITEN CODE	FERTILISER SOITES	excl. GST	incl. GST
FA-PACK-003	Fertiliser - Liquid Analysis Includes pH, EC, Total Dissolved Salts (TDS) (by calc.); Total Nitrogen, Total Phosphorus; Sodium, Potassium, Calcium, Magnesium, Sulfur; Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper and Boron.	\$210.00	\$231.00
FA-PACK-001	Fertiliser - Solid Analysis Includes Moisture, pH, EC; Total Nitrogen (TN), Total Carbon (TC); Sodium, Potassium, Calcium, Magnesium, Phosphorus, Sulfur, Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron.	\$210.00	\$231.00
FA-PACK-009	<b>Gypsum Assessment - Fertiliser</b> Includes Moisture Content, Calcium, Magnesium, Sodium and Sulfur.	\$126.00	\$138.60
FA-PACK-015	LECO - Total Carbon and Total Nitrogen - Fertiliser Includes Total Carbon (TC) and Total Nitrogen (TN), TC/TN Ratio.	\$63.00	\$69.30
FA-PACK-014	Lime Assessment - Basic Fertiliser Includes Moisture Content, Calcium, Magnesium, Acid Neutralising Capacity (ANC-BT) and Neutralising Value.	\$136.50	\$150.15
FA-PACK-010	Lime Assessment - Coarse Fertiliser Includes Moisture Content, Calcium, Magnesium, Acid Neutralising Capacity (ANC-BT), Neutralising Value and Dry Sieving Particle Size Analysis including > 1 mm, 0.85-1 mm, 0.3-0.85 mm, < 0.3 mm fractions.	\$168.00	\$184.80
FA-PACK-011	Lime Assessment – Fine Fertiliser Includes Moisture Content, Calcium, Magnesium, Acid Neutralising Capacity (ANC-BT), Neutralising Value and Laser Diffraction Particle Size Analysis including < 0.01 mm, 0.01-0.02 mm, 0.02-0.03 mm, 0.03-0.04 mm, 0.04-0.05 mm, 0.05-0.06 mm, 0.06-0.07 mm, 0.07-0.08 mm, 0.08-0.09 mm, 0.09-0.1 mm, 0.1-0.125 mm, 0.125-0.25 mm, 0.25-0.5 mm, 0.5-1.0 mm, > 1.0 mm fractions.	\$273.00	\$300.30
FA-PACK-007	NPK Analysis - Fertiliser Includes Total Nitrogen, Total Phosphorus, Total Potassium.	\$126.00	\$138.60

ITEM CODE	FERTILISER SUITES (Cont.)	PRICE excl. GST	PRICE incl. GST
FA-PACK-012	Particle Size Analysis – Dry Sieving – Coarse Fertiliser  Dry sieving Particle Size Analysis including > 1 mm, 0.85-1 mm, 0.3-0.85 mm, < 0.3 mm fractions.	\$52.50	\$57.75
FA-PACK-013	Particle Size Analysis – Laser Diffraction – Fine Fertiliser Laser Diffraction Particle Size Analysis including 3000 to 0.01 μm. Size fractions include < 0.01 mm, 0.01-0.02 mm, 0.02-0.03 mm, 0.03-0.04 mm, 0.04-0.05 mm, 0.05-0.06 mm, 0.06-0.07 mm, 0.07-0.08 mm, 0.08-0.09 mm, 0.09-0.1 mm, 0.1-0.125 mm, 0.125-0.25 mm, 0.25-0.5 mm, 0.5-1.0 mm, > 1.0 mm fractions. Price dependent upon application and sample amounts.	\$178.50	\$196.35
FA-PACK-008	Soluble Nitrogen - Fertiliser Includes water extractable nitrate and ammonium on fertilisers	\$84.00	\$92.40
FA-PACK-005	Soluble Phosphorus I - Fertiliser Includes Total Phosphorus, Total Soluble Phosphorus, Water Soluble Phosphorus, 2% Citrate Soluble Phosphorus.	\$105.00	\$115.50
FA-PACK-006	Soluble Phosphorus II - Fertiliser Includes Total Phosphorus, Total Soluble Phosphorus, Water Soluble Phosphorus, 2% Citrate Soluble Phosphorus and 2% Formic Acid Soluble Phosphorus.	\$147.00	\$161.70
FA-PACK-002	Total Acid Extractable - Heavy Metals (ICPMS) - Fertiliser Includes Lead, Cadmium, Arsenic, Nickel, Aluminium, Mercury, Chromium, Silver, Selenium.	\$84.00	\$92.40

No additional charges if a suite is selected.

	No additional cl	harges if a suit	e is selected.
ITEM CODE	INDIVIDUAL FERTILISER TESTS	PRICE	PRICE
ITENI CODE	INDIVIDUAL FERTILISER TESTS	excl. GST	incl. GST
SS-SING-238	Chloride – Fertiliser	\$63.00	\$69.30
	Includes water soluble chloride on fertilisers.		
SS-PREP-014	Fertiliser Handling Charge	\$52.50	\$57.75
SS-SING-067	Fluoride - Extractable	\$63.00	\$69.30
SW-SING-124	Insoluble Matter – Liquid Fertilisers	\$31.50	\$34.65
	Includes insoluble matter mg/L.		
SS-SING-240	Insoluble Matter – Solid Fertilisers	\$42.00	\$46.20
	Includes insoluble matter mg/kg.		
SS-SING-001	Moisture Content - As Received (%) at 105°C	\$10.50	\$11.55
	Oven-dry moisture content as a per cent of the 'as-received' sample (105°C).		
SS-SING-233	Moisture Content - As Received (%) at 40°C	\$10.50	\$11.55
	Moisture content as a per cent of air-dry equivalent soil (40°C).		
SS-SING-193	Solubility - Fertiliser	\$42.00	\$46.20
	Includes maximum solubility at 20°C.		
SW-SING-120	Specific Gravity - Hydrometer method	\$21.00	\$23.10
	Includes specific gravity and temperature on sample volumes greater than 200 mL.		
SW-SING-035	Specific Gravity - Volumetric method	\$21.00	\$23.10
	Includes specific gravity and temperature on samples with small volumes.		•
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#### **PLANT TISSUE AND GRAIN TESTING**

ITEM CODE PLANT TISSUE AND GRAIN SUITES	PRICE	PRICE	
TIEWI CODE	PLAINT 1155UE AIND GRAIN SUITES	excl. GST	incl. GST
PA-PACK-001	Plant Testing	\$52.50	\$57.75
	Includes Total Nitrogen (TN), Total Carbon (TC), Total Sulfur (TS); Sodium, Potassium, Calcium, Magnesium, Phosphorus, Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron.		
PA-PACK-008	Plant Testing - Comprehensive	\$94.50	\$103.95
	Includes Total Nitrogen (TN), Total Carbon (TC), Total Sulfur (TS); Sodium, Potassium, Calcium, Magnesium,		
	Phosphorus, Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron, Aluminium, Selenium, Chloride,		
	Nitrate Nitrogen, Ammonium Nitrogen.		
PA-PACK-004	Plant Testing with Leaf Washing	\$63.00	\$69.30
	Includes Total Nitrogen (TN), Total Carbon (TC), Total Sulfur (TS); Sodium, Potassium, Calcium, Magnesium,		
	Phosphorus, Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron, Leaf Washing.		
PA-PACK-002	Plant Testing with Report	\$89.25	\$98.18
	Includes Total Nitrogen (TN), Total Carbon (TC), Total Sulfur (TS); Sodium, Potassium, Calcium, Magnesium,		
	Phosphorus, Silicon, Cobalt, Molybdenum, Zinc, Manganese, Iron, Copper, Boron; Fertility Report.		
SS-PACK-118	Residue Screen - Complete	\$294.00	\$323.40
	Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids – 80+ Residues + Herbicide and Fungicide – 40+		
	Residue).		

ITEM CODE	PLANT TISSUE AND GRAIN SUITES (Cont.)	PRICE excl. GST	PRICE incl. GST
PA-PACK-006	Sap Analysis Includes Moisture, pH, EC, Total Nitrogen; Nitrate, Ammonium; Chloride; Calcium, Magnesium, Sodium, Potassium, Phosphorus, Sulfur, Boron, Copper, Iron, Manganese, Zinc, Aluminium, Molybdenum, Cobalt and Silicon; Brix. Data Only (no interpretation).	\$84.00	\$92.40
PA-PACK-005	Soluble Nitrogen Includes Nitrate and Ammonium.	\$42.00	\$46.20

No additional charges if a suite is selected.

	No additional cr	iaiges ii a suit	le is selected.
ITEM CODE	INDIVIDUAL PLANT TISSUE AND GRAIN TESTS	PRICE	PRICE
ITEM CODE	INDIVIDUAL PLANT 1135UE AIND GRAIN 1ESTS	excl. GST	incl. GST
SS-SING-271	Carbohydrates - Cold Water Soluble	\$60.00	\$66.00
	(% in plant leaf or organic material)		
SS-SING-277	Carbohydrates - Total Non-structural	\$63.00	\$69.30
	(% in plant leaf or organic material)		
SS-SING-160	Brix Reading	\$10.50	\$11.55
SS-SING-270	Chloride – Plants	\$31.50	\$34.65
	Includes water soluble chloride on plants.		
SS-SING-263	Chlorophyll "a" Concentration	\$63.00	\$69.30
	Includes 90% acetone extraction- requires air dry and grinding into powder.		
SS-SING-225	Dry Matter Content (%) at 105°C	\$10.50	\$11.55
	Proportion of moisture and oven-dry solid in 'as received' sample (105°C).		
SS-SING-204	Fertility Report - Ferti-Tech Soil/Leaf Report Preparation	\$50.00	\$55.00
SS-SING-071	Fertility Report - Keycrobe Soil/Leaf Report Preparation	\$50.00	\$55.00
SS-SING-022	lodine - NaOH Extraction	\$105.00	\$115.50
SS-PREP-009	Leaf Washing	\$10.50	\$11.55
	Please advise with samples.		
SS-SING-136	Protein (Crude)	\$31.50	\$34.65
	Includes Total Nitrogen (TN) and Crude Protein (Calculation).		
SS-SING-272	Starch Content (% in plant leaf or organic material)	\$80.00	\$88.00

#### FEED AND PRODUCE TESTING

All suites have preparation and digest/extract charges included.

ITEM CODE	FEED SUITES	PRICE	PRICE
TIEWI CODE	FEED SUITES	excl. GST	incl. GST
SS-PACK-107	Feed Package - Cereal Grain (NIR- Near-Infrared Analysis)	\$105.00	\$115.50
	For oat, barley, wheat and triticale grains.		
	Includes Dry Matter/Moisture, Crude Protein, Acid Detergent Fibre, Neutral Detergent Fibre, Dry Matter		
	Digestibility, Dry Organic Matter Digestibility and Metabolisable Energy, Starch and Sugar, Fat for oats.		
SS-PACK-109	Feed Package - Horse (NIR- Near-Infrared Analysis)	\$105.00	\$115.50
	For hay, fresh cut pasture and cereal grains, includes Horse Digestible Energy.		
	Includes Dry Matter/Moisture, Crude Protein, Acid Detergent Fibre, Neutral Detergent Fibre, Dry Matter		
	Digestibility, Dry Organic Matter Digestibility and Metabolisable Energy and Horse Digestible Energy.		
SS-PACK-108	Feed Package - Pelleted (NIR- Near-Infrared Analysis)	\$105.00	\$115.50
	For pelleted and mixed feeds.		
	Includes Dry Matter/Moisture, Crude Protein, Acid Detergent Fibre, Neutral Detergent Fibre, Dry Matter		
	Digestibility, Dry Organic Matter Digestibility and Metabolisable Energy, Fat and Ash.		
SS-PACK-106	Feed Package - Quality (NIR- Near-Infrared Analysis)	\$105.00	\$115.50
	For hay, fresh cut pasture, straw, pasture silage and maize silage.		
	Includes Dry Matter/Moisture, Crude Protein, Acid Detergent Fibre, Neutral Detergent Fibre, Dry Matter		
	Digestibility, Dry Organic Matter Digestibility and Metabolisable Energy. Depending on fodder type can include:		
	Water Soluble Carbohydrates, Starch and Sugar, Fat and Ash.		
SS-PACK-145	Soluble Nitrogen - Feed	\$42.00	\$46.20
	Includes Nitrate and Ammonium.		

No additional charges if a suite is selected.

ITEM CODE	INDIVIDUAL FEED TESTS	PRICE excl. GST	PRICE incl. GST
SS-SING-239	Cyanide (Total Prussic Acid in Plant/Feed samples)	\$105.00	\$115.50
	Includes sample preparation and Total Cyanide.		

All suites have preparation and digest/extract charges included.

ITEM CODE	PRODUCE SUITES	PRICE	PRICE
TIEWI CODE		excl. GST	incl. GST
SS-PACK-084	Produce Metals 1 (NATA Subcontracted) Includes Cadmium and Lead.	\$99.75	\$109.73
SS-PACK-085	Produce Metals 2 (NATA Subcontracted) Includes Cadmium, Lead and Mercury.	\$115.50	\$127.05
SS-PACK-083	Produce MRL - CR006 (C3/C5 Extended Residue) Includes Standard Residue Screen - Analysis of Pesticides (Organo-chlorines (OC), Organo-phosphates (OP)), Herbicides, Phenols, Carbamates, Acaricides, Synthetic Pyrethroids, Fungicides, Other.	\$367.50	\$404.25

No additional charges if a suite is selected.

ITEM CODE	INDIVIDUAL PRODUCE TESTS	PRICE	PRICE
		excl. GST	incl. GST
SS-SING-214	Produce - Single Metal	\$84.00	\$92.40
	Includes Cadmium or Lead or Mercury. Includes preparation.		
SS-SING-211	Produce Bacto 1	\$47.25	\$51.98
	Includes Produce Ecoli.		
SS-SING-212	Produce Bacto 2	\$63.00	\$69.30
	Includes Produce Salmonella.		
SS-SING-213	Produce Bacto 3	\$57.75	\$63.53
	Includes Produce Listeria.		

### COMPOST, BIOCHAR AND HAIR TESTING

Basic Compost Testing Only. See Compost and Lanscape Soils Price List for comprehensive list.

ITEM CODE	COMPOST SUITES	PRICE excl. GST	PRICE incl. GST
CA-PACK-004	Compost Available Nutrients Includes pH and EC; Soluble (Ca, Mg, K, P), Dissolved (NH <sub>4</sub> , NO <sub>3</sub> , S); Exchangeable (Ca, Mg, Na, K, H, Al, ECEC); Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients (Fe, Cu, Mg, Zn, B, Si); TC, TN, TC/TN Ratio, Organic Matter. Note: 200 g of sample is required.	\$126.00	\$138.60
CA-PACK-001	Compost Total Nutrients Includes Moisture, pH, EC; TC, TN, TC/TN Ratio, Organic Matter; Total (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se). Note: 200 g of sample is required.	\$105.00	\$115.50
CA-PACK-019	Compost Total and Available Nutrients Includes Moisture, pH, EC; TC, TN, TC/TN Ratio, Organic Matter; Total (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se); Soluble (Ca, Mg, K, P), Dissolved (NH <sub>4</sub> , NO <sub>3</sub> , S); Exchangeable (Ca, Mg, Na, K, H, Al, ECEC); Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients (Fe, Cu, Mg, Zn, B, Si); TC, TN, TC/TN Ratio, Organic Matter. Note: 300 g of sample is required.	\$199.50	\$219.45
CA-PACK-020	Compost Total and Available Nutrients plus Heavy Metals Includes Moisture, pH, EC; TC, TN, TC/TN Ratio, Organic Matter; Total (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag; Soluble (Ca, Mg, K, P), Dissolved (NH <sub>4</sub> , NO <sub>3</sub> , S); Exchangeable (Ca, Mg, Na, K, H, Al, ECEC); Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients (Fe, Cu, Mg, Zn, B, Si); TC, TN, TC/TN Ratio, Organic Matter. Note: 300 g of sample is required.	\$231.00	\$254.10

	The suites made proparation and algorithmatic shares morales				
ITEM CODE	BIOCHAR SUITES	PRICE	PRICE		
		excl. GST	incl. GST		
SS-PACK-163	Biochar Totals Analysis Plus Includes Moisture Content, Bulk Density; Ash Content and Volatile Matter (750°C); pH, EC (1:10 water); Total Nitrogen (TN), Total Carbon (TC), Total Organic Carbon (TOC); Total Hydrogen, Total Oxygen; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Acid Neutralising Capacity (ANC). Note: 500 g of sample is required to complete testing.	\$346.50	\$381.15		
SS-PACK-143	Soil Testing for Biochar Application Includes Moisture, pH, EC (1:5 water); Total Organic Carbon (TOC), Total Nitrogen (TN), TC/TN Ratio; Available Nitrogen (Nitrate); Soluble Chloride; Total Metals (Sb, As, Be, B, Cd, Co, Cu, Cr, Pb, Mn, Mo, Ni, Se, Sn, V, Zn, S, P, Hg); Soluble Cations (Ca, Mg, K, Na). Note: 300 g of sample is required to complete testing.	\$215.25	\$236.78		

All suites have preparation and digest/extract charges included.

ITEM CODE	HAIR SUITES	PRICE	PRICE
ITENI CODE		excl. GST	incl. GST
SS-PACK-050	Hair Tissue Mineral Analysis (HTMA) - Human and Animal	\$84.00	\$92.40
	Includes Antimony, Aluminium, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt,		
	Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium,		
	Selenium, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium and Zinc. Data only (no		
	interpretation), Nitric Acid digest, minimum of 0.5 g of hair required which is equivalent to one heaped tablespoon.		
	Collect from nape as close as possible to scalp as this reflects new growth. Provide sample double bagged to avoid		
	contamination when opened at the laboratory.		

### AGRICULTURAL WATER TESTING

All suites have preparation and digest/extract charges included.

UT514 6005	A CRICILITADA I MATER CLUTES	PRICE	PRICE
ITEM CODE	AGRICULTURAL WATER SUITES	excl. GST	incl. GST
SW-PACK-007	Agricultural Stock Use Includes pH, EC, Total Dissolved Salts (TDS) (calculation); Water Hardness; Total Alkalinity; Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury; Nitrate, Ammonium, Phosphate; Faecal Coliforms.	\$126.00	\$138.60
SW-PACK-005	Irrigation and Livestock Suitability - Comprehensive Includes pH, EC, Total Dissolved Salts (TDS) (calculation), Water Hardness, Total Alkalinity, Turbidity, Total Coliforms and E.Coli Bacteria; Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Manganese, Nickel, Lead, Zinc; Nitrate, Ammonium, Phosphate; Sodium, Potassium, Calcium, Magnesium, Chloride, Sulfate, Sodium Absorption Ratio (SAR).	\$157.50	\$173.25
SW-PACK-004	Irrigation Suitability - Basic Includes pH, EC, Total Dissolved Salts (TDS) (calculation), Iron and Manganese; Sodium, Potassium, Calcium, Magnesium, Sulfate, Chloride; Turbidity, Total Alkalinity, Water Hardness (calculation), Saturation Index; Sodium Absorption Ratio (SAR).	\$84.00	\$92.40
SW-PACK-024	Pesticide Screen 2a - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC) and Organo-phosphates (OP).	\$136.50	\$150.15
SW-PACK-002	Water Quality - Basic For drinking and domestic use. Includes pH, EC, Total Dissolved Salts (TDS) (calculation), Water Hardness, Total Alkalinity, Turbidity, Total Coliforms, E.Coli Bacteria.	\$73.50	\$80.85
SW-PACK-003	Water Quality - Comprehensive For drinking and domestic use. Includes pH, EC, Total Dissolved Salts (TDS) (calculation), Water Hardness, Total Alkalinity, Turbidity, Total Coliforms and E.Coli Bacteria; Nitrate; Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Manganese, Nickel, Lead, Zinc, Mercury.	\$115.50	\$127.05

No additional charges if a suite is selected.

	ITEM CODE	INDIVIDUAL AGRICULTURAL WATER TESTS	PRICE	PRICE
	TIEWI CODE		excl. GST	incl. GST
	SW-SING-022	Algae - Basic ID and Count (Blue Green Algae only) by Microscopic Identification	\$115.50	\$127.05
١	SW-SING-123	Algae - Full ID and Count by Microscopic Identification	\$168.00	\$184.80

### **COMPOST AND LANDSCAPE SOIL ANALYTICAL SERVICES**

#### **COMPOST TESTING**

All suites have preparation and digest/extract charges included

All suites have preparation and digest/extract charges include			ges included.
ITEM CODE	AS4454 COMPOST PRODUCT SUITES	PRICE	PRICE
TIEM CODE	ASTASA COMI OST I ROBOCI SOTIES	excl. GST	incl. GST
CA-PACK-011	Mature Compost Analysis under AS4454 Includes Bulk Density; Moisture, pH, EC; Wettability; TOC, TN, TC/TN Ratio; NO <sub>3</sub> , NH <sub>4</sub> , PO <sub>4</sub> , NH <sub>4</sub> /NO <sub>3</sub> Ratio; Particle Size > 5 mm and < 16 mm; Physical Contaminants - Glass, Metal, Rigid Plastics > 2 mm, Light Plastics > 5 mm, Stones and Clay > 5 mm; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Bioassay; Plant Propagules, Nitrogen Drawdown Index, Specific Oxygen Uptake Rate, Solvita; Low Level Pesticides (Organo-chlorines, Polychlorinated Biphenyls); Salmonella, Ecoli, Faecal Coliforms. Acid Neutralising Capacity required if pH > 8.0. Note: 4 kg of sample required.	\$630.00	\$693.00
CA-PACK-003	Composted Product Analysis under AS4454 Includes Bulk Density; Moisture, pH, EC; Wettability; TOC, TN, TC/TN Ratio; NO <sub>3</sub> , NH <sub>4</sub> , PO <sub>4</sub> , NH <sub>4</sub> /NO <sub>3</sub> Ratio; Particle Size > 5 mm and < 16 mm; Physical Contaminants - Glass, Metal, Rigid Plastics > 2 mm, Light Plastics > 5 mm, Stones and Clay > 5mm; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Bioassay; Plant Propagules, Nitrogen Drawdown Index; Low Level Pesticides (Organo-chlorines, Polychlorinated Biphenyls); Salmonella, Ecoli, Faecal Coliforms. Acid Neutralising Capacity required if pH > 8.0. Note: 4 kg of sample required.	\$472.50	\$519.75
CA-PACK-023	Pasteurized Product Analysis under AS4454 Includes Moisture, pH, EC; Wettability; TOC, TN, TC/TN Ratio; PO4; Particle Size > 5 mm and < 16 mm; Physical Contaminants - Glass, Metal, Rigid Plastics > 2 mm, Light Plastics > 5mm, Stones and Clay > 5 mm; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Plant Propagules; Low Level Pesticides (Organo-chlorines, Polychlorinated Biphenyls); Salmonella, Ecoli, Faecal Coliforms. Acid Neutralising Capacity required if pH > 8.0. Note: 4 kg of sample required.	\$336.00	\$369.60
CA-PACK-024	Raw Mulch Analysis under AS4454 Includes pH, EC; TOC, TN, TC/TN Ratio; Particle Size > 5 mm and < 16 mm; Physical Contaminants - Glass, Metal, Rigid Plastics > 2 mm, Light Plastics > 5 mm, Stones and Clay > 5mm; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Plant Propagules; Low Level Pesticides (Organo-chlorines, Polychlorinated Biphenyls). Acid Neutralising Capacity required if pH > 8.0. Note: 4 kg of sample required.	\$189.00	\$207.90

All packs have preparation and digest/extract charges included.

ITEM CODE	AS4454 COMPOST BASIC SUITES	PRICE excl. GST	PRICE incl. GST
CA-PACK-005	Compost Soluble Nutrients plus Carbon & Nitrogen under AS4454 Includes Moisture, pH, EC; TOC, TN, TC/TN Ratio; NO <sub>3</sub> , NH <sub>4</sub> , PO <sub>4</sub> , NH <sub>4</sub> /NO <sub>3</sub> Ratio. Note: 200 g of sample is required to complete testing.	\$94.50	\$103.95
CA-PACK-013	LECO - Total Carbon, Total Nitrogen under AS4454/AS3743/AS4419 Includes Total Carbon (TC) and Total Nitrogen (TN), TC/TN Ratio. Note: 200 g of sample is required to complete testing.	\$36.75	\$40.43
CA-PACK-014	Nutrients - Water Extractable under AS4454 Includes Moisture, Nitrate, Phosphate, Ammonium (1:5 water). Note: 200 g of sample is required to complete testing.	\$52.50	\$57.75
CA-PACK-010	pH and EC under AS4454 Includes Moisture, pH and EC. Note: 200 g of sample is required to complete testing.	\$42.00	\$46.20

All packs have preparation and digest			
ITEM CODE	EM CODE BASIC COMPOST SUITES	PRICE	PRICE
DASIC CONTROL STATES	DASIC COMPOST SOFTES	excl. GST	incl. GST
CA-PACK-020	Compost Total and Available Nutrients plus Heavy Metals Includes Moisture, pH, EC; TC, TN, TC/TN Ratio, Organic Matter; Total (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag; Soluble (Ca, Mg, K, P), Dissolved (NH4, NO3, S); Exchangeable (Ca, Mg, Na, K, H, Al, ECEC); Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients (Fe, Cu, Mg, Zn, B, Si); TC, TN, TC/TN Ratio, Organic Matter. Note: 300 g of sample is required.	\$231.00	\$254.10
CA-PACK-019	Compost Total and Available Nutrients Includes Moisture, pH, EC; TC, TN, TC/TN Ratio, Organic Matter; Total (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se); Soluble (Ca, Mg, K, P), Dissolved (NH <sub>4</sub> , NO <sub>3</sub> , S); Exchangeable (Ca, Mg, Na, K, H, Al, ECEC); Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients (Fe, Cu, Mg, Zn, B, Si); TC, TN, TC/TN Ratio, Organic Matter. Note: 300 g of sample is required.	\$199.50	\$219.45

ITEM CODE	BASIC COMPOST SUITES (Cont.)	PRICE excl. GST	PRICE incl. GST
CA-PACK-001	Compost Total Nutrients Includes Moisture, pH, EC; TC, TN, TC/TN Ratio, Organic Matter; Total (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se). Note: 200 g of sample is required.	\$105.00	\$115.50
CA-PACK-004	Compost Available Nutrients Includes pH and EC; Soluble (Ca, Mg, K, P), Dissolved (NH <sub>4</sub> , NO <sub>3</sub> , S); Exchangeable (Ca, Mg, Na, K, H, AI, ECEC); Bray I and II Phosphorus; Colwell Phosphorus; Available Micronutrients (Fe, Cu, Mg, Zn, B, Si); TC, TN, TC/TN Ratio, Organic Matter. Note: 200 g of sample is required.	\$126.00	\$138.60
CA-PACK-008	Compost Water Soluble Nutrients Includes Moisture; Nitrate, Ammonium; Chloride; Calcium, Magnesium, Sodium, Potassium, Phosphorus, Sulfur, Boron, Copper, Iron, Manganese, Zinc, Aluminium, Molybdenum and Cobalt. Note: 200 g of sample is required to complete testing.	\$94.50	\$103.95

All packs have preparation and digest/extract charges included

All packs have preparation and digest/extract charges include			
ITEM CODE	OTHER COMPOST SUITES	PRICE	PRICE
TILIVI CODE	OTHER COMPOST SOITES	excl. GST	incl. GST
SS-PACK-189	The Compost Order 2016 - Monitoring  This order applies to compost. In this order, compost means any combination of mulch, garden organics, food waste, manure and paunch that has undergone composting. Includes physical contaminants with glass, metal, rigid plastics, light flexible film plastics. Also includes Salmonella, Ecoli and Faecal Coliforms. Note: 2 kg of sample is required to complete testing.	\$189.00	\$207.90
SS-PACK-190	The Pasteurised Garden Organics Order 2016 - Monitoring  This order applies to pasteurised garden organics. In this order, pasteurised garden organics means mulch and/ or garden organics that have undergone the process of pasteurisation as a minimum. Includes physical contaminants with glass, metal, rigid plastics and light flexible film plastics. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-PACK-026	Exchangeable Cations - 15D1 - 1 M $NH_4OAc$ Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M $NH_4OAc$ at pH 7.0. Pretreatment for soluble salts when EC is > 0.3 dS/m.	\$52.50	\$57.75
SS-PACK-035	SOUR Test Includes Moisture, Volatile Solids Concentration, Specific Oxygen Uptake Rate (SOUR) with an incubation of 20°C.	\$105.00	\$115.50
SS-PACK-110	Total NPK Analysis Includes Total Nitrogen, Total Phosphorus, Total Potassium.	\$63.00	\$69.30

Unless otherwise indicated 200 g of sample is required.

ITEM CODE	INDIVIDUAL COMPOST TESTS	PRICE	PRICE
TIEM CODE	INDIVIDUAL COM CONTESTS	excl. GST	incl. GST
SS-SING-090	Acid Neutralising Capacity (ANC-BT)  This method is used to measure Acid Neutralising Capacity (ANC-BT) where pH-KCl > 6.5.	\$31.50	\$34.65
SS-SING-168	Ammonium (1:5 water) under AS4454 Includes moisture, extractable ammonium.	\$31.50	\$34.65
SS-SING-139	Bulk Density under AS4454/AS3743  Lab based bulk density on compost and potting mix. Note: 1 kg of sample is required to complete testing.	\$21.00	\$23.10
SS-SING-062	Carbon - Organic by Walkley Black	\$42.00	\$46.20
SS-SING-061	Carbon - Total Organic by LECO	\$31.50	\$34.65
SS-SING-177	Carbon - Organic Matter under AS4454/AS3743/AS4419 Includes moisture correction, Total Organic Carbon (TOC), Organic Matter by calculation.	\$42.00	\$46.20
SS-SING-175	Carbon - Total (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Carbon (TC).	\$31.50	\$34.65
SS-SING-176	Carbon - Total Organic (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Organic Carbon (TOC).	\$42.00	\$46.20
SS-SING-172	Chloride (1:5 water) under AS4454 Includes moisture, soluble chloride.	\$31.50	\$34.65
SS-SING-180	EC (1:5 water) under AS4454 Includes moisture, EC (1:5 water).	\$26.25	\$28.88
SS-SING-170	Nitrate (1:5 water) under AS4454 Includes moisture, extractable nitrate.	\$31.50	\$34.65
SS-SING-174	Nitrogen - Total (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Nitrogen (TN).	\$31.50	\$34.65

		PRICE	PRICE
ITEM CODE	INDIVIDUAL COMPOST TESTS (Cont.)	excl. GST	incl. GST
SS-SING-119	Nitrogen Drawdown Index (NDI) under AS4454/AS4419  Note: 2 kg of sample is required to complete testing.	\$99.75	\$109.73
SS-SING-123	Particle Size Grading under AS4454 Includes percentage mass retained on 5 mm and 16 mm sieve. Note: 2 kg of sample is required to complete testing.	\$31.50	\$34.65
SS-SING-178	pH (1:5 water) under AS4454 Includes moisture, pH (1:5 water).	\$26.25	\$28.88
SS-SING-165	Phosphate (1:5 water) under AS4454 Includes moisture, extractable phosphate.	\$31.50	\$34.65
SS-SING-145	Plant Growth Test (Bioassay) - TMECC 05.05-B In-vitro germination and root elongation. Note: 1 L of sample is required to complete testing.	\$52.50	\$57.75
SS-SING-189	Plant Growth Test (Bioassay) under AS4454  Used on fresh soils and composts. Seedling emergence and relative root growth. Note: 1 kg of sample is required to complete testing.	\$52.50	\$57.75
SS-SING-219	Solids Energy Code (Calorific Value)	\$110.00	\$121.00
SS-SING-245	Vermicast Sieve Test under AS4454:2012 Includes percentage mass retained on 1.18 mm sieve. Note: 1 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-137	Viable Plant Propagules under AS4454/AS3743  Note: 1 kg of sample required to complete testing.	\$52.50	\$57.75
SS-SING-122	Visible Contaminants under AS4454  Applies to composts from agricultural or source separated organics. Includes contamination with glass, metal, rigid plastics, stones, lumps of clay, light flexible film plastics. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-072	Wettability under AS4454/AS3743	\$21.00	\$23.10

### **POTTING MIX TESTING**

All packs have preparation and digest/extract charges included.

ITEM CODE	AS3743 POTTING MIX PRODUCT SUITES	PRICE excl. GST	PRICE incl. GST
CA-PACK-007	Potting Mix and Growing Media - Premium under AS3743 Includes Moisture Content, Bulk Density, pH, EC (1:1.5 water); Chloride, Sodium, Calcium, Magnesium, Potassium, Phosphate, Nitrate, Ammonium, Sulfate, Iron, Copper, Manganese, Zinc, Boron; Air-Filled Porosity (AFP); Water Holding Capacity (WHC); Wettability; Plant Growth Bioassay (Toxicity Index), Nitrogen Drawdown Index (NDI). Note: 3 kg of sample is required to complete testing.	\$315.00	\$346.50
CA-PACK-006	Potting Mix and Growing Media - Regular under AS3743 Includes Moisture Content, Bulk Density, pH, EC (1:1.5 water); Chloride, Sodium, Calcium, Magnesium, Potassium, Ammonium, Iron, Copper, Manganese, Zinc, Boron; Air-Filled Porosity (AFP), Water Holding Capacity (WHC); Wettability; Plant Growth Bioassay (Toxicity Index); Nitrogen Drawdown Index (NDI). Note: 3 kg of sample is required to complete testing.	\$288.75	\$317.63

	All packs have preparation and digest	e, entract oriar	Bes merarear
ITEM CODE	TEM CODE AS3743 POTTING MIX BASIC SUITES	PRICE	PRICE
TILIVI CODE	A33743 FOT TING WITA DASIC SUITES	excl. GST	incl. GST
CA-PACK-021	AFP and WHC under AS3743:2003 Includes Air-Filled Porosity (AFP) and Water Holding Capacity (WHC). Note: 2 kg of sample is required to complete testing.	\$52.50	\$57.75
CA-PACK-017	<b>Extractable Macronutrients (Ammonium Acetate) under AS3743</b> Includes Calcium, Magnesium, Sodium, Potassium, Phosphorus, Sulfur (1:1.5). Note: 200 g of sample is required to complete testing.	\$42.00	\$46.20
CA-PACK-018	Extractable Micronutrients (DTPA) under AS3743 Includes Calcium, Magnesium, Sodium, Potassium, Phosphorus, Sulfur, Iron, Copper, Zinc, Manganese (1:1.5). Note: 200 g of sample is required to complete testing.	\$42.00	\$46.20
CA-PACK-015	Nutrients - Water Extractable under AS3743 Includes Nitrate, Ammonium (1:1.5 water). Note: 200 g of sample is required to complete testing.	\$42.00	\$46.20
CA-PACK-016	pH and EC under AS3743 Includes pH and EC (1:1.5 water). Note: 200 g of sample is required to complete testing.	\$31.50	\$34.65

	Unless otherwise indicated 2	00 g of sampl	e is required.
ITEM CODE	INDIVIDUAL POTTING MIX TESTS	PRICE	PRICE
TIEW CODE	INDIVIDUAL FOTTING WITA 1E313	excl. GST	incl. GST
SS-SING-120	Air-filled Porosity (AFP) under AS3743  Note: 2 kg of sample is required to complete testing.	\$26.25	\$28.88
SS-SING-169	Ammonium (1:1.5 water) under AS3743 Includes extractable ammonium.	\$31.50	\$34.65
SS-SING-139	Bulk Density under AS4454/AS3743  Lab based bulk density on compost and potting mix. Note: 1 kg of sample is required to complete testing.	\$21.00	\$23.10
SS-SING-177	Carbon - Organic Matter under AS4454/AS3743/AS4419 Includes moisture correction, Total Organic Carbon (TOC), Organic Matter by calculation.	\$42.00	\$46.20
SS-SING-175	Carbon - Total (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Carbon (TC).	\$31.50	\$34.65
SS-SING-176	Carbon - Total Organic (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Organic Carbon (TOC).	\$42.00	\$46.20
SS-SING-173	Chloride (1:1.5 water) under AS3743 Includes soluble chloride.	\$31.50	\$34.65
SS-SING-181	EC (1:1.5 water) under AS3743	\$15.75	\$17.33
SS-SING-171	Nitrate (1:1.5 water) under AS3743 Includes extractable nitrate.	\$31.50	\$34.65
SS-SING-174	Nitrogen - Total (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Nitrogen (TN).	\$31.50	\$34.65
SS-SING-188	Nitrogen Drawdown Index (NDI) under AS3743  Note: 2 kg of sample is required to complete testing.	\$99.75	\$109.73
SS-SING-179	pH (1:1.5 water) under AS3743	\$15.75	\$17.33
SS-SING-166	Phosphate (1:1.5 water) under AS3743/AS4419 Includes extractable phosphate.	\$31.50	\$34.65
SS-SING-190	Plant Growth Test (Bioassay) under AS3743/AS4419  Used on fresh soils and composts. Seedling emergence and relative root growth. Note: 1 kg of sample is required to complete testing.	\$52.50	\$57.75
SS-SING-137	Viable Plant Propagules under AS4454/AS3743  Note: 1 kg of sample required to complete testing.	\$52.50	\$57.75
SS-SING-121	Water Holding Capacity (WHC) under AS3743  Note: 2 kg of sample is required to complete testing.	\$26.25	\$28.88
SS-SING-072	Wettability under AS4454/AS3743	\$21.00	\$23.10

### LANDSCAPE SOIL TESTING

ITEM CODE	AS4419:2018 SOIL SUITES	PRICE	PRICE
ITENT CODE	A34413.2016 301L 3011 L3	excl. GST	incl. GST
SS-PACK-120	Landscape Soils (On Grade) compliance under AS4419:2018 Includes Bulk Density; Texture; pH and EC; Exchangeable Cations (pH and EC dependant); Available Phosphorus; Available Nitrogen (Ammonium plus Nitrate); Organic Matter (Total Organic Carbon); Large Particles; Bioassay; Water Repellence; Physical Contaminants; Chemical Contaminants (Heavy Metals and Low Level (Pesticides, PCB)); Plant Propagules. Note: 4 kg of sample is required to complete testing.	\$525.00	\$577.50
SS-PACK-127	Landscape Soils (On Grade) monitoring under AS4419:2018 Includes Bulk Density; Texture; pH and EC; Exchangeable Cations (pH and EC dependant); Available Phosphorus; Available Nitrogen (Ammonium plus Nitrate); Organic Matter (Total Organic Carbon); Large Particles; Bioassay; Water Repellence. Note: 4 kg of sample is required to complete testing.	\$336.00	\$369.60
SS-PACK-121	Low Density Media (On Slab) compliance under AS4419:2018 Includes Bulk Density; pH and EC; Air-Filled Porosity; Water Holding Capacity; Available Phosphorus; Available Nitrogen (Ammonium), Available Nitrogen (Ammonium plus Nitrate); Organic Matter (Total Organic Carbon); Nitrogen Drawdown Index; Physical Contaminants; Chemical Contaminants (Heavy Metals and Low Level (Pesticides, PCB)); Plant Propagules. Note: 4 kg of sample is required to complete testing.	\$435.75	\$479.33
SS-PACK-128	Low Density Media (On Slab) monitoring under AS4419:2018 Includes Bulk Density; pH and EC; Air-Filled Porosity; Water Holding Capacity; Available Phosphorus; Available Nitrogen (Ammonium), Available Nitrogen (Ammonium plus Nitrate); Organic Matter (Total Organic Carbon); Nitrogen Drawdown Index. Note: 3 kg of sample is required to complete testing.	\$246.75	\$271.43

ITEM CODE	AS4419:2018 SOIL SUITES (Cont.)	PRICE	PRICE
		excl. GST	incl. GST
SS-PACK-122	Soils for Turf and Lawns compliance under AS4419:2018 Includes Bulk Density; Texture; pH and EC; Exchangeable Cations (pH and EC dependant); Available Phosphorus; Available Nitrogen (Ammonium plus Nitrate); Organic Matter (Total Organic Carbon); Large Particles; Dispersibility; Permeability; Water Repellence; Physical Contaminants; Chemical Contaminants (Heavy Metals and Low Level (Pesticides, PCB)); Plant Propagules. Note: 4 kg of sample is required to complete testing.	\$572.25	\$629.48
SS-PACK-129	Soils for Turf and Lawns monitoring under AS4419:2018 Includes Bulk Density; Texture; pH and EC; Exchangeable Cations (pH and EC dependant); Available Phosphorus; Available Nitrogen (Ammonium plus Nitrate); Organic Matter (Total Organic Carbon); Large Particles; Dispersibility; Permeability; Water Repellence. Note: 3 kg of sample is required to complete testing.	\$383.25	\$421.58
SS-PACK-123	Structural Support Soil and Wetlands compliance under AS4419:2018 Includes Bulk Density; Texture; pH and EC; Exchangeable Cations (pH and EC dependant); Available Phosphorus; Available Nitrogen (Nitrate); Organic Matter (Total Organic Carbon); Water Repellence; Permeability; Physical Contaminants; Chemical Contaminants (Heavy Metals and Low Level (Pesticides, PCB)); Plant Propagules. Note: 4 kg of sample is required to complete testing. Particle Size Analysis not included (SS-SING-243 Wetlands & SS-SING-244 Structural Support).	\$514.50	\$565.95
SS-PACK-130	Structural Support Soil and Wetlands monitoring under AS4419:2018 Includes Bulk Density; Texture; pH and EC; Exchangeable Cations (pH and EC dependant); Available Phosphorus; Available Nitrogen (Nitrate); Organic Matter (Total Organic Carbon); Water Repellence; Permeability. Note: 3 kg of sample is required to complete testing.	\$325.50	\$358.05

All packs have preparation and digest/extract charges included.

	All packs have preparation and digest	CALITACT CHAI	ges included.
ITEM CODE	AS4419 SOIL BASIC SUITES	PRICE	PRICE
TILIVI CODE	A34413 3016 DA31C 3011E3	excl. GST	incl. GST
CA-PACK-013	LECO - Total Carbon, Total Nitrogen under AS4454/AS3743/AS4419 Includes Total Carbon (TC) and Total Nitrogen (TN), TC/TN Ratio. Note: 200 g of sample required to complete testing.	\$36.75	\$40.43
SS-PACK-131	pH and EC under AS4419:2018 Includes pH and EC (1:5 water) except low density soils. Note: 200 g of sample is required to complete testing.	\$26.25	\$28.88
SS-PACK-146	pH and EC under AS4419:2018 Includes pH and EC (1:1.5 water) for low density soils. Note: 200 g of sample is required to complete testing.	\$31.50	\$34.65
SS-PACK-191	Sportsturf Practical Drainage Suite under AS4419:2018 Includes Bulk Density (8, 16, 32 drops), Permeability (8, 16, 32 drops) and Water Holding Capacity. Note 1 kg of sample is required to complete testing.	\$136.50	\$150.15
SS-PACK-132	<b>Total Available Nitrogen under AS4419:2018</b> Includes KCl extractable Nitrate and Ammonium. Note 200 g of sample is required to complete testing.	\$26.25	\$28.88

All packs have preparation and digest/extract charges included.

	All packs have preparation and digest	cy extract char	ges meradea.
ITEM CODE	OTHER SOIL SUITES	PRICE	PRICE
	O MERCO I SOLLES	excl. GST	incl. GST
SS-PACK-034	DTPA Extractable Micronutrients Includes Iron, Copper, Zinc, Manganese.	\$42.00	\$46.20
SS-PACK-027	Exchangeable Cations - 15C1 - Alcoholic 1 M $NH_4Cl$ Includes exchangeable Sodium, Potassium, Calcium, Magnesium by Alcoholic 1 M $NH_4Cl$ at pH 8.5. Ideal for soils where pH > 7.3.	\$73.50	\$80.85
SS-PACK-026	Exchangeable Cations - 15D1 - 1 M $NH_4OAc$ Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M $NH_4OAc$ at pH 7.0. Pretreatment for soluble salts when EC is > 0.3 dS/m.	\$52.50	\$57.75
SS-PACK-001	Exchangeable Cations - 15D3 - 1 M $NH_4OAc$ plus Acidity (15G1) Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M $NH_4OAc$ at pH 7.0 and exchangeable acidity (Hydrogen + Aluminium) by 1 M KCI.	\$52.50	\$57.75

Unless otherwise indicated 200 g of sample is required.

ITEM CODE	INDIVIDUAL SOIL TESTS	PRICE	PRICE
		excl. GST	incl. GST
SS-SING-183	Bulk Density under AS4419  Lab based bulk density on landscape soils. Note: 1 kg of sample is required to complete testing.	\$21.00	\$23.10
SS-SING-274	Bulk Density under AS4419:2018 This includes 8, 16 and 32 drops. Note 1 kg of sample is required to complete testing.	\$63.00	\$69.30
SS-SING-177	Carbon - Organic Matter under AS4454/AS3743/AS4419 Includes moisture correction, Total Organic Carbon (TOC), Organic Matter by calculation.	\$42.00	\$46.20

ITEM CODE	INDIVIDUAL SOIL TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-175	Carbon - Total (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Carbon (TC).	\$31.50	\$34.65
SS-SING-176	Carbon - Total Organic (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Organic Carbon (TOC).	\$42.00	\$46.20
SS-SING-172	Chloride (1:5 water) under AS4454 Includes moisture, soluble chloride.	\$31.50	\$34.65
SS-SING-167	Dispersability under AS4419	\$42.00	\$46.20
SS-SING-180	EC (1:5 water) under AS4454 Includes moisture, EC (1:5 water).	\$26.25	\$28.88
SS-SING-229	Water repellence of soil under AS4419:2018 Includes water repellence of soil and if required, further testing to ethanol repellence of soil. Note: 200 g of sample is required to complete testing.	\$15.00	\$16.50
SS-SING-174	Nitrogen - Total (LECO) under AS4454/AS3743/AS4419 Includes moisture correction, Total Nitrogen (TN).	\$31.50	\$34.65
SS-SING-119	Nitrogen Drawdown Index (NDI) under AS4454/AS4419  Note: 2 kg of sample is required to complete testing.	\$99.75	\$109.73
SS-SING-243	Particle Size Analysis for Wetlands under AS4419:2018 Particle size of sediment and soil by hydrometer and sieve. Percentage mass retained on sieve. Includes > 2 mm, $1.0-2.0$ mm, $0.5-1.0$ mm, $0.25-0.5$ mm, $0.1-0.25$ mm, $50$ $\mu$ m- $0.1$ mm, $2-50$ $\mu$ m, $< 2$ $\mu$ m fractions. Note: $500$ g of sample is required to complete testing.	\$115.50	\$127.05
SS-SING-184	Particles Size Grading - Large particles under AS4419:2003 Includes percentage mass retained on 10 mm, 20 mm, 50 mm and 75 mm sieve. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-226	Particles Size Grading - Large particles under AS4419:2018 Includes percentage mass retained on 2 mm, 5 mm, 20 mm sieve. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-244	Particles Size Grading for Structural Support under AS4419:2018 Includes percentage mass passing on 63.0 mm, 53.0 mm, 37.5 mm, 26.5 mm, 19.0 mm, 13.2 mm, 4.75 mm fractions. Note: 2 kg of sample is required to complete testing.	\$63.00	\$69.30
SS-SING-156	Permeability under AS4419:2003  Note: 2 kg of sample is required to complete testing.	\$78.75	\$86.63
SS-SING-230	Permeability under AS4419:2018 This includes 8, 16 and 32 drops. Note: 1 kg of sample is required to complete testing.	\$78.75	\$86.63
SS-SING-178	pH (1:5 water) under AS4454 Includes moisture, pH (1:5 water).	\$26.25	\$28.88
SS-SING-166	Phosphate (1:1.5 water) under AS3743/AS4419 Includes extractable phosphate.	\$31.50	\$34.65
SS-SING-033	Phosphorus - Colwell Includes Phosphorus for alkaline soils.	\$21.00	\$23.10
SS-SING-034	Phosphorus - Olsen Includes Olsen Phsophorous - a measure of the intensity of Phosphorus.	\$21.00	\$23.10
SS-SING-228	Physical Contaminants under AS4419:2018  Applies to soil types as identified by AS4419:2018. Includes contamination with glass, metal, rigid plastics, light flexible film plastics. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-190	Plant Growth Test (Bioassay) under AS3743/AS4419 Used on fresh soils and composts. Seedling emergence and relative root growth. Note: 1 kg of sample is required to complete testing.	\$52.50	\$57.75
SS-SING-164	Texture - Full under AS4419	\$26.25	\$28.88
SS-SING-227	<b>Top Dress - Particles under AS4419:2018</b> Includes percentage mass retained of organics particles on 2 mm, 5 mm, 8 mm sieve. Also mass retained of mineral particles on 2 mm sieve. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-275	Water Holding Capacity under AS4419:2018  Note: 500 g of sample is required to complete testing.	\$26.25	\$28.88
SS-SING-182	Wettability under AS4419	\$21.00	\$23.10

### MAIN ROAD (MRTS AND R178) TESTING

All packs have preparation and digest/extract charges included.

All packs have preparation and digest/e			
ITEM CODE	MRTS SOIL SUITES	PRICE	PRICE
	111 11	excl. GST	incl. GST
SS-PACK-090	MRTS16 FORM C Topsoil Testing (2017) Includes Bulk Density; Total Nitrogen (TN), Total Carbon (TC), Total Organic Carbon (TOC), Organic Matter; Wettability; pH and EC (1:5 water); Texture; Permeability; Extractable Phosphorus, Chloride; MCP Sulfur; Large Particles; Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio Effective Cation Exchange Capacity; Water Repellence Class. Note: 4 kg of sample is required to complete testing.	\$315.00	\$346.50
SS-PACK-067	MRTS16 FORM D Manufactured Site Topsoil Compliance Testing (2017) Includes Total Organic Carbon (TOC), Organic Matter; pH and EC (1:5 water); Texture; Extractable Chloride; Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio, Effective Cation Exchange Capacity; Dispersion (Emerson Class); Water Repellence Class. Note: 1 kg of sample is required to complete testing.	\$199.50	\$219.45
SS-PACK-093	MRTS16 FORM E Subsoil Testing (2017) Includes Wettability; pH and EC (1:5 water); Texture; Extractable Chloride; MCP Sulfur; Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio, Effective Cation Exchange Capacity; Dispersion (Emerson Class); Water Repellence Class; Slaking Class; Clouding (Dispersion) Class. Note: 1 kg of sample is required to complete testing.	\$210.00	\$231.00
SS-PACK-097	MRTS16 FORM F Drainage Basin Soil Testing (2017) Includes Moisture Content; pH and EC (1:5 water); Extractable Chloride; MCP Sulfur; Dispersion (Emerson Class); Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio, Effective Cation Exchange Capacity; Dispersion (Emerson Class); Slaking Class; Clouding (Dispersion) Class. Note: 1 kg of sample is required to complete testing.	\$199.50	\$219.45
SS-PACK-100	MRTS16 FORM G Organic Soil Conditioner Testing (2017) Includes Bulk Density; Moisture, pH, EC; Wettability; TOC, TN, TC/TN Ratio; NO <sub>3</sub> , NH <sub>4</sub> , PO <sub>4</sub> , NH <sub>4</sub> /NO <sub>3</sub> Ratio; Particle Size > 5 mm and < 16 mm; Physical Contaminants - Glass, Metal, Rigid Plastics > 2 mm, Light Plastics > 5 mm, Stones and Clay > 5 mm; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Bioassay; Plant Propagules, Nitrogen Drawdown Index, Specific Oxygen Uptake Rate, Solvita; Low Level Pesticides (Organochlorines, Polychlorinated Biphenyls); Salmonella, Ecoli, Faecal Coliforms; Legionella, Listeria; Asbestos; PFAS - Low Level. Acid Neutralising Capacity required if pH > 8.0. Note: 5 kg of sample required.	\$1,102.50	\$1,212.75

ITEM CODE	MRTS WATER SUITES	PRICE excl. GST	PRICE incl. GST
SW-PACK-070	MRTS - FORM I - Non-potable Water Testing and Assessment Report Includes pH, EC; Sodium, Potassium, Calcium, Magnesium, Sulfate, Chloride, Sodium Absorption Ratio (SAR); Bicarbonate/Carbonate Alkalinity; Salmonella, Ecoli, Total Colilforms.	\$157.50	\$173.25

ITEM CODE	D170 COIL CLUTES	PRICE	PRICE
ITEM CODE	R178 SOIL SUITES	excl. GST	incl. GST
SS-PACK-095	R178 FORM E1 Subsoil Testing (2017) Includes Wettability; pH and EC (1:5 water); Texture; Extractable Phosphorus, Extractable Chloride; MCP Sulfur; Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio, Effective Cation Exchange Capacity; Water Repellence Class; Slaking Class; Clouding (Dispersion) Class. Note: 1 kg of sample is required to complete testing.	\$210.00	\$231.00
SS-PACK-092	R178 FORM E2 Topsoil Testing - Site Won, Manufactured and Imported (2017) Includes Bulk Density; Total Nitrogen (TN), Total Carbon (TC), Total Organic Carbon (TOC), Organic Matter; Wettability; pH and EC (1:5 water); Texture; Permeability; Extractable Phosphorus, Chloride; MCP Sulfur; Large Particles; Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio Effective Cation Exchange Capacity; Dispersion (Emerson Class); Water Repellence Class; Slaking Class; Clouding (Dispersion) Class. Note: 4 kg of sample is required to complete testing.	\$315.00	\$346.50
SS-PACK-099	R178 FORM E3 Drainage Basin Soil Testing (2017) Includes Moisture Content; pH and EC (1:5 water); Extractable Chloride; MCP Sulfur; Exchangeable Calcium, Magnesium, Sodium, Potassium, Aluminium, Calcium/Magnesium Ratio, Effective Cation Exchange Capacity; Dispersion (Emerson Class); Slaking Class; Clouding (Dispersion) Class. Note: 1 kg of sample is required to complete testing.	\$178.50	\$196.35

ITEM CODE	R178 SOIL SUITES (Cont.)	PRICE	PRICE
		excl. GST	incl. GST
SS-PACK-101	R178 FORM G1 Organic Soil Conditioner Testing (2017)	\$892.50	\$981.75
	Includes Bulk Density; Moisture, pH, EC; Wettability; TOC, TN, TC/TN Ratio; NO <sub>3</sub> , NH <sub>4</sub> , PO <sub>4</sub> , NH <sub>4</sub> /NO <sub>3</sub> Ratio; Particle		
	Size > 5 mm and < 16 mm; Physical Contaminants - Glass, Metal, Rigid Plastics > 2mm, Light Plastics > 5mm, Stones		
	and Clay > 5 mm; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Bioassay;		
	Plant Propagules, Nitrogen Drawdown Index, Specific Oxygen Uptake Rate, Solvita; Low Level Pesticides (Organo-		
	chlorines, Polychlorinated Biphenyls); Salmonella, Ecoli, Faecal Coliforms; Legionella, Listeria; Asbestos. Acid		
	Neutralising Capacity required if pH > 8.0. Note: 5 kg of sample required.		
	Plant Propagules, Nitrogen Drawdown Index, Specific Oxygen Uptake Rate, Solvita; Low Level Pesticides (Organo- chlorines, Polychlorinated Biphenyls); Salmonella, Ecoli, Faecal Coliforms; Legionella, Listeria; Asbestos. Acid		

All packs have preparation and digest/extract charges included.

ITEM CODE	OTHER SOIL SUITES	PRICE	PRICE
II LIII CODE	OTHER SOIL SOILES	excl. GST	incl. GST
SS-PACK-078	Exchangeable Cations - 15B3 - 1 M $NH_4Cl$ Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M $NH_4Cl$ at pH 7.0. When EC is > 0.3 dS/m soluble Chloride is analysed to adjust the exchangeable sodium.	\$57.75	\$63.53
SS-PACK-027	Exchangeable Cations - 15C1 - Alcoholic 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by Alcoholic 1 M NH <sub>4</sub> Cl at pH 8.5. Ideal for soils where pH > 7.3.	\$73.50	\$80.85

Unless otherwise indicated 200 g of sample is required.

	Unless otherwise indicated 2	200 g of sampl	e is required.
ITEM CODE	INDIVIDUAL SOIL TESTS	PRICE	PRICE
TIEM CODE	INDIVIDUAL SCIETES IS	excl. GST	incl. GST
SS-SING-183	Bulk Density under AS4419	\$21.00	\$23.10
	Lab based bulk density on landscape soils. Note: 1 kg of sample is required to complete testing.		
SS-SING-177	Carbon - Organic Matter under AS4454/AS3743/AS4419	\$42.00	\$46.20
	Includes moisture correction, Total Organic Carbon (TOC), Organic Matter by calculation.		
SS-SING-172	Chloride (1:5 water) under AS4454	\$31.50	\$34.65
	Includes moisture, soluble chloride.		
SS-SING-167	Dispersability under AS4419	\$42.00	\$46.20
SS-SING-025	Emerson Aggregate Test (EAT)	\$47.25	\$51.98
	Provides an Emerson Dispersion Class		
SS-SING-184	Particles Size Grading - Large particles under AS4419:2003	\$42.00	\$46.20
	Includes percentage mass retained on 10 mm, 20 mm, 50 mm and 75 mm sieve. Note: 2 kg of sample is required to		
	complete testing.		
SS-SING-226	Particles Size Grading - Large particles under AS4419:2018	\$42.00	\$46.20
	Includes percentage mass retained on 2 mm, 5 mm, 20 mm sieve. Note: 2 kg of sample is required to complete testing.		
CC CINC 4FC		670.75	ćoc co
SS-SING-156	Permeability under AS4419:2003  Note: 2 kg of sample is required to complete testing.	\$78.75	\$86.63
CC CINIC 024		624.00	ć22.40
SS-SING-034	Phosphorus - Olsen Includes Olsen Phsophorous - a measure of the intensity of Phosphorus.	\$21.00	\$23.10
CC CINIC 40C	· · ·	424.50	624.65
SS-SING-196	Slaking and Clouding - Test Methods Q161 and Q162	\$31.50	\$34.65
SS-SING-082	Sulfur - MCP	\$21.00	\$23.10
SS-SING-164	Texture - Full under AS4419	\$26.25	\$28.88
SS-SING-197	Water repellence of soil - Test Method Q160	\$15.75	\$17.33
SS-SING-182	Wettability under AS4419	\$21.00	\$23.10

### **CONTAMINATION TESTING**

ITEM CODE	CONTAMINATION SUITES	PRICE	PRICE
TI EIVI CODE	CONTAININATION SOITES	excl. GST	incl. GST
SS-PACK-004	Basic Metals Scan - Total Acid Extractable (ICPMS) Includes Aluminium, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$73.50	\$80.85
SS-PACK-055	Pesticide Screen 2a - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC) and Polychlorinated Biphenyls (PCB).	\$126.00	\$138.60
SS-PACK-056	Pesticide Screen 2b - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls (PCB).	\$136.50	\$150.15

ITEM CODE	CONTAMINATION SUITES (Cont.)	PRICE	PRICE
	contradillation sorres (conta)	excl. GST	incl. GST
SS-PACK-118	Residue Screen - Extended (Compost, plant leaf, stem, wood material, feed) Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residues	\$280.00	\$308.00
SS-PACK-196	Residue Screen – Extended (Soils only) Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residues	\$190.00	\$209.00
SS-PACK-119	Residue Screen - Complete + Glyphosate Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residue) + Glyphosate Screens.	\$450.00	\$495.00
SS-PACK-045	Total Acid Extractable - Heavy Metals (ICPMS) Includes Lead, Cadmium, Arsenic, Nickel, Aluminium, Mercury, Chromium, Silver, Selenium.	\$52.50	\$57.75

Unless otherwise indicated 200 g of sample is required.

	Onless otherwise indicated 2	oo g oi sailipi	e is required.
ITEM CODE	INDIVIDUAL CONTAMINATION TESTS	PRICE	PRICE
TIEW CODE	- INDIVIDUAL CONTAININATION TESTS	excl. GST	incl. GST
SS-SING-063	Asbestos Identification (Not Quantifiable)	\$73.50	\$80.85
	Identification in building material, soil, compost and dust.		
SS-SING-157	Glyphosate (Round Up) + AMPA Screen (All dried solids)	\$270.00	\$297.00
SS-SING-056	Organo-chlorines (OC) - Low Level (Detection Limit - 0.01 ppm)	\$105.00	\$115.50
SS-SING-057	Organo-phosphates (OP) - Low Level (Detection Limit - 0.01 ppm)	\$105.00	\$115.50
SS-SING-224	PFAS in ASLP leachate – standard level 28 suite with detection to 0.01 μg/L	\$220.50	\$242.55
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in ASLP (Australian Standard Leachate		
	Procedure) leachate.		
SS-SING-216	PFAS in solid – standard level 28 suite with detection 0.01 mg/kg	\$178.50	\$196.35
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil.		
SS-SING-253	PFAS in solid – LOW level 28 suite with detection 0.0008-0.0016 mg/kg	\$199.50	\$219.45
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil.		
SS-SING-278	PFAS-28 Standard Level - TOPA	\$345.00	\$379.50
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil plus PFAS Precursor compounds.		
SS-SING-279	PFAS-28 Standard Level - TOF	\$220.00	\$242.00
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil plus any Total Organofluorine compounds.		
SS-SING-058	Polychlorinated Biphenyls (PCB) - Low Level (Detection Limit - 0.01 ppm)	\$105.00	\$115.50
SS-SING-140	Synthetic Pyrethroids	\$126.00	\$138.60

### **BIOLOGICAL AND MICROBIAL TESTING**

ITEM CODE	MICROBIAL SUITES	PRICE	PRICE
	1110110511112	excl. GST	incl. GST
SS-PACK-185	Cryptosporidium and Giardia  Note: 500 g of sample is required to complete testing.	\$892.50	\$981.75
SS-PACK-141	Microbial Biomass Assessment - Compost Includes biomasses of 12 microbial groups relevant for compost quality, health and function.	\$313.95	\$345.35
SS-PACK-166	Microbial Biomass Assessment - Soil with high Organics Includes biomasses of 12 microbial groups relevant for compost quality, health and function.	\$313.95	\$345.35
SS-PACK-140	Microbial Biomass Assessment - Soil Includes biomasses of 12 microbial groups relevant for soil quality, health and function.	\$271.95	\$299.15
SS-PACK-167	MIC-01: Basic Analysis of Microbial Activity in Soil (Plate Count)  Preferably examined in relation to texture, moisture content, pH, C:N ratio, and organic matter content. Includes Total aerobic bacteria, Total fungi (moulds), Gram negative bacteria, Filamentous actinomycetes, Yeasts.	\$94.50	\$103.95
SS-PACK-168	MIC-02: Extended Microbial Activity in Soil (Plate Count)  Preferably examined in relation to texture, moisture content, pH, C:N ratio, and organic matter content. Includes  Total aerobic bacteria, Filamentous actinomycetes, Actinobacteria, Gram negative bacteria, Filamentous fungi  (Moulds), Yeasts, Lactic acid bacteria, Total Anaerobes (includes facultative anaerobes), Sulfite Reducing Anaerobes.	\$199.50	\$219.45
SS-PACK-175	Phytophthora and Pythium  Note: 500 g of sample is required to complete testing.	\$231.00	\$254.10
SS-PACK-176	General Plant Pathogen Scan  Note: 500 g of sample is required to complete testing.	\$367.50	\$404.25
SS-PACK-059	Pathogens Includes Moisture, Ecoli, Faecal Coliforms, Salmonella.	\$147.00	\$161.70
SS-PACK-184	General Plant Pathogen Scan Plus General plant pathogen scan including Phytophthora, Pythium, Rhizoctonia and Fusarium. Note: 500 g of sample is required to complete testing.	\$525.00	\$577.50

Unless otherwise indicated 200 g of sample is required.

	offices outlet wise indicated 2	00 B 01 00111p1	e is required.
ITEM CODE	INDIVIDUAL MICROBIAL TESTS	PRICE	PRICE
		excl. GST	incl. GST
SS-SING-047	Aerobic Plate Coun	\$42.00	\$46.20
SS-SING-265	Bacillus cereus	\$126.00	\$138.60
SS-SING-266	Clostridium perfringens	\$78.75	\$86.63
SS-SING-267	Campylobacter	\$157.50	\$173.25
SS-SING-044	E.Coli	\$42.00	\$46.20
SS-SING-043	Faecal Coliforms	\$42.00	\$46.20
SS-SING-268	Legionella spp plus longbeachae Includes Legionella spp plus longbeachae in solids.	\$136.50	\$150.15
SS-SING-046	Listeria	\$63.00	\$69.30
SS-SING-269	Nematodes	\$105.00	\$115.50
SS-SING-045	Salmonella	\$63.00	\$69.30
SS-SING-262	Microbiometer – Soil biomass measurement Includes estimates of Total Bacteria, Fungi and Fungi:Bacteria ratio. This test should only be done in conjunction with SS-PACK-167 or SS-PACK-168.	\$31.50	\$34.65
SS-SING-195	SOLVITA - Compost Emissions Maturity Test  Includes measurement of carbon dioxide and ammonia gas released from compost due to biological activity.	\$63.00	\$69.30
SS-SING-209	SOLVITA - Soil CO <sub>2</sub> Burst Includes measurement of carbon dioxide released from soil due to biological activity.	\$63.00	\$69.30

### BIOCHAR, FILTER MEDIA AND BIOSOLID TESTING

	All packs have preparation and digest	,	8-0
ITEM CODE	BIOCHAR SUITES	PRICE	PRICE
TIEM CODE	BIOCHAR SOTTES	excl. GST	incl. GST
SS-PACK-163	Biochar Totals Analysis Plus Includes Moisture Content, Bulk Density; Ash Content and Volatile Matter (750°C); pH, EC (1:10 water); Total Nitrogen (TN), Total Carbon (TC), Total Organic Carbon (TOC); Total Hydrogen, Total Oxygen; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Acid Neutralising Capacity (ANC). Note: 500 g of sample is required to complete testing.	\$346.50	\$381.15
SS-PACK-149	Biochar Ultimate Analysis Includes molar ratio of hydrogen to organic carbon.	\$210.00	\$231.00
SS-PACK-150	Biochar Density and Ashing Includes moisture with % ash and volatiles.	\$73.50	\$80.85
SS-PACK-151	Biochar PCB's (< 0.2 ppm) and PAH's (< 0.4 ppm)	\$115.50	\$127.05
SS-PACK-152	Biochar VOC and SVOC Scan Includes PAH's as part of scan.	\$325.50	\$358.05
SS-PACK-153	Biochar Heavy Metals Includes Pb, Cd, Hg, As, Cu, Ni, Zn and Cr.	\$84.00	\$92.40
SS-PACK-154	Biochar Dioxin/Furans (< 17 ng/kg)	\$997.50	\$1,097.25
SS-PACK-155	<b>Biochar Particle Size Analysis - Dry Sieving</b> Dry sieving for fractions > 2 mm, 1-2 mm, 500 μm-1 mm, 250-500 μm, 125-250 μm, 63-125 μm and < 63 μm.	\$94.50	\$103.95
SS-PACK-156	Biochar Surface Area (Total and External)	\$315.00	\$346.50
SS-PACK-143	Soil Testing for Biochar Application Includes Moisture, pH, EC (1:5 water); Total Organic Carbon (TOC), Total Nitrogen (TN), TC/TN Ratio; Available Nitrogen (Nitrate); Soluble Chloride; Total Metals (Sb, As, Be, B, Cd, Co, Cu, Cr, Pb, Mn, Mo, Ni, Se, Sn, V, Zn, S, P, Hg); Soluble Cations (Ca, Mg, K, Na). Note: 300 g of sample is required to complete testing.	\$215.25	\$236.78

	All packs have preparation and digest	•	
ITEM CODE	BIORETENTION FILTER MEDIA SUITES AND INDIVIDUAL TESTS	PRICE	PRICE
		excl. GST	incl. GST
SS-PACK-160	Bioretention Filter Media Analysis (FMSBS 2015)	\$315.00	\$346.50
	Includes Moisture, pH, EC; Total Organic Carbon, Total Nitrogen, Organic Matter; Phosphate; Dry Sieving > 2.0 mm,		
	1-2 mm, 0.5-1 mm, 0.25-0.5 mm, 0.15-0.25 mm, 0.05-0.15 mm, < 0.05 mm; Bridging Criteria; Hydraulic Conductivity.		
	Note: 3 kg of sample is required to complete testing.		
SS-PACK-171	Bioretention Transition Layer Analysis (FMSBS 2015)	\$178.50	\$196.35
	Includes Dry Sieving > 2.0 mm, 1-2 mm, 0.5-1 mm, 0.25-0.5 mm, 0.15-0.25 mm, 0.05-0.15 mm, < 0.05 mm; Bridging		
	Criteria; Hydraulic Conductivity. Note: 3 kg of sample is required for testing.		
SS-PACK-172	Bioretention Drainage Layer Analysis (FMSBS 2015)	\$157.50	\$173.25
	Includes Dry Sieving > 5.0 mm, 3.4-5.0 mm, 2.0-3.4 mm, 1-2 mm, 0.5-1 mm, 0.25-0.5 mm, 0.15-0.25 mm, 0.05-0.15 mm		
	< 0.05 mm; Bridging Criteria; Hydraulic Conductivity. Note: 3 kg of sample is required to complete testing.		
SS-SING-231	Saturated Hydraulic Conductivity under ASTM F1815 - 11	\$78.75	\$86.63
	Note: 1 kg of sample is required to complete testing.		
SS-SING-254	Particle Size Analysis - Dry Sieving (FMSBS 2015)	\$78.75	\$86.63
1	Dry sieving for fractions > 2.0 mm, 1-2 mm, 0.5-1 mm, 0.25-0.5 mm, 0.15-0.25 mm, 0.05-0.15 mm, < 0.05 mm.		

	All packs have preparation and digest	t/extract char	ges included.
ITEM CODE	BIOSOLIDS SUITES	PRICE	PRICE
TIEW CODE	BIOSOLIDS SOITES	excl. GST	incl. GST
BS-PACK-001	Contaminated Grade Assessment Includes Total Dry Solids Concentration, Metals Analysis Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Zinc; Low Level (Organo-chlorines Pesticides (OC), Polychlorinated biphenyls (PCB)).	\$241.50	\$265.65
BS-PACK-004	Enteric Viruses Determination Includes Reovirus, Enterovirus, Adenovirus (viruses per 10 g).	\$441.00	\$485.10
BS-PACK-006	Enteric Viruses Determination plus Helminth Ova Includes Reovirus, Enterovirus, Adenovirus (viruses per 10 g) plus Helminth Ova.	\$525.00	\$577.50
BS-PACK-002	Nutrient Determination Includes Moisture Content; Total Nitrogen (TN), Total Phosphorus, Total Kjeldahl Nitrogen (TKN) (by calculation); and available Nutrients (1:10 KCl extractable Nitrate, Ammonium, Phosphate).	\$94.50	\$103.95
BS-PACK-005	SOUR Test Includes Moisture, Volatile Solids Concentration, Specific Oxygen Uptake Rate (SOUR) with an incubation of 20°C.	\$105.00	\$115.50
BS-PACK-003	Stabilisation Confirmation Includes Moisture, Microbial Assessment (E.Coli, Faecal Coliforms, and Salmonella sp.), Volatile Solids Concentration, Specific Oxygen Uptake Rate (SOUR).	\$210.00	\$231.00

### **CONTAMINATION ASSESSMENT ANALYTICAL SERVICES**

### SOIL ASSESSMENT TESTING

	All suites have preparation and digest/extract charges inc		
ITEM CODE	SPECIFIC SOIL SUITES	PRICE	PRICE
SS-PACK-015	Aggressivity Assessment	excl. GST \$73.50	incl. GST \$80.85
	Includes Moisture, Basic Texture; pH, EC, Resistivity (calculation), Soluble Chloride, Sulfate.	*******	, , , , , ,
SS-PACK-151	Biochar PCB's (< 0.2 ppm) and PAH's (< 0.4 ppm)	\$115.50	\$127.05
SS-PACK-152	Biochar VOC and SVOC Scan Includes PAH's as part of scan.	\$325.50	\$358.05
SS-PACK-154	Biochar Dioxin/Furans (< 17 ng/kg)	\$997.50	\$1,097.25
SS-PACK-186	EPA Resource Recover Order - Waste 2017  Analysis of solids for moisture content and dry weight analysis of pH, EC (1:5 water); Soluble Cations and Anions (1:5 water extraction with 0.2 μm filtration) Na, K, Ca, Mg, Cl, NO3;TN, TOC (LECO); and metals (Aqua regia digest and ICPMS analysis) S, P, Sb, As, Be, B, Cd, Co, Cu, Cr, Pb, Mn, Mo, Ni, Se, Sn, V, Zn, Hg. A 200g dry weight equivalent of sample requested in a jar or plastic bag.	\$189.00	\$207.90
SS-PACK-053	Concrete Quality Analysis Includes concrete crushing, Chloride and Sulfate.	\$84.00	\$92.40
SS-PACK-005	Contaminated Site Assessment 1a Includes Basic Texture; Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury, Boron, Cobalt, Beryllium; Pesticides (Organo-chlorines (OC), Organo-phosphates (OP)).	\$136.50	\$150.15
SS-PACK-006	Contaminated Site Assessment 1b Includes Basic Texture; Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury, Boron, Cobalt, Beryllium; Pesticides (Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls (PCB)).	\$157.50	\$173.25
SS-PACK-007	Contaminated Site Assessment 2a Includes Basic Texture; Arsenic, Lead; Pesticides (Organo-chlorines (OC), Organo-phosphates (OP)).	\$115.50	\$127.05
SS-PACK-147	Contaminated Site Assessment 2b Includes Basic Texture; Arsenic, Lead; Pesticides (Organo-chlorines (OC)).	\$105.00	\$115.50
SS-PACK-008	Contaminated Site Assessment 3 Includes Basic Texture; Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury, Boron, Cobalt, Beryllium; Pesticides (Organo-chlorines (OC)).	\$126.00	\$138.60
SS-PACK-051	Excavated Natural Material (ENM) Classification 2014 Includes pH, EC (1:5 water); Foreign Material; Copper, Lead, Cadmium, Zinc, Arsenic, Chromium, Nickel, Mercury; Polycyclic Aromatic Hydrocarbons (PAH); Total Petroleum Hydrocarbons (C10-C40), BTEX (C6-C10).	\$273.00	\$300.30
SS-PACK-177	Foundry Sand Analysis- RRO, 2014 Includes pH, EC (1:5 water), Total Metals (Hg, Cd, Pb, As, Be, Cr, Cu, Mo, Ni, Se, Ag, Zn) and Total Fluoride (fusion method).	\$157.50	\$173.25
SS-PACK-042	Health Investigation Level (HIL) Soil Assessment Includes Copper, Lead, Cadmium, Zinc, Arsenic, Chromium, Nickel, Mercury, Beryllium, Boron, Cobalt; Polycyclic Aromatic Hyrdrocarbons (PAH), Total Petroleum Hyrdrocarbons (TPH), BTEX Hydrocarbons; Pesticides (Organochorines (OC)); Total Phenols; Total Cyanide.	\$336.00	\$369.60
SS-PACK-023	Recovered Aggregate Exemption 2014 (suitable for waste aggregate, soil or concrete) Includes EC; Mercury, Cadmium, Lead, Arsenic, Chromium, Copper, Nickel, Zinc; Fraction % (metal, plaster, rubber, plastic, paper, cloth, paint, wood, other vegetable matter).	\$115.50	\$127.05
SS-PACK-065	Recovered Fines Order EPA 2014 Testing Includes pH, EC (1:5 water); Foreign Material; Particle Size; Total Organic Carbon; Copper, Lead, Cadmium, Zinc, Arsenic, Chromium, Nickel, Mercury; Polycyclic Aromatic Hydrocarbons (PAH); Total Petroleum Hydrocarbons (C10-C36), BTEX (C6-C9); Pesticides (Organochlorine Pesticides (OC); Polychlorinated Biphenyls (PCB); Volatile Hydrocarbons (VHC).	\$525.00	\$577.50
SS-PACK-104	Resource Recovery Exemption Analysis EPA 2017 Includes Moisture Content; pH, EC; Total Organic Carbon, Total Nitrogen, C/N Ratio; Soluble Cations (Sodium, Potassium, Calcium, Magnesium), Soluble Anions (Chloride, Nitrate); Totals (Antimony, Arsenic, Beryllium, Boron, Cadmium, Cobalt, Copper, Chromium, Lead, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Selenium, Sulfur, Tin, Vanadium, Zinc).	\$283.50	\$311.85
SS-PACK-182	Soil/Sediment Contamination Assessment Includes Metals (Total Available Al, As, Cd, Cr, Cu, Fe Pb, Mn, Hg, Ni, Se, Ag, Zn), PAH, TPH, BTEX, and speciated Phenolics.	\$231.00	\$254.10

ITEM CODE	SPECIFIC SOIL SUITES (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-PACK-066	The Recovered Glass Sand Order 2014 Includes EC; Total Organic Carbon (TOC); Mercury, Cadmium, Lead, Arsenic, Chromium, Copper, Nickel, Zinc, Molybdenum; Fraction % (Plaster, clay lumps and other friable materials. Rubber, plastic, bitumen, paper, cloth, paint, wood and other vegetation matter).	\$141.75	\$155.93
SS-PACK-080	Treated Drilling Mud Exemption 2014 Includes pH, EC (1:5 water); Copper, Lead, Cadmium, Zinc, Arsenic, Chromium, Nickel, Mercury; Polycyclic Aromatic Hydrocarbons (PAH); Total Petroleum Hydrocarbons (C10-C36), BTEX (C6-C9), Total Chlorinated Hydrocarbons (TCH).	\$294.00	\$323.40
SS-PACK-105	Treated Grease Trap Waste Order EPA 2014 Includes Moisture Content; pH, EC; Oil and Grease; Total Nitrogen; Totals (Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium and Zinc); Available Boron.	\$189.00	\$207.90
SS-PACK-148	Waste Material Biomethane Potential (BMP) Includes BMP analysis using COD, Total Solids, Volatile solids (VS) and methane production normalised on a VS basis (includes assessment report with cumulative gas production graphs). Note: typically an 8 week production trial and limited sample numbers of 4 per batch) (estimated 2 kg of sample solids/sludge required for analysis.	\$1,207.50	\$1,328.25

All suites have preparation and digest/extract charges included.

	All suites have preparation and digest/		
ITEM CODE	RESIDUE SOIL SUITES	PRICE	PRICE
TIEW CODE	RESIDUE SOIL SOITES	excl. GST	incl. GST
SS-PACK-147	Contaminated Site Assessment 2b	\$105.00	\$115.50
	Includes Basic Texture; Arsenic, Lead; Pesticides (Organo-chlorines (OC)).		
SS-PACK-030	Contaminated Site Assessment 4 - Dip Site Screening Analysis	\$84.00	\$92.40
	Includes Total Arsenic and Organo-chlorines (OC). Designed for dip site assessments.		
SS-PACK-013	Pesticide Screen 1a	\$84.00	\$92.40
	Includes Organo-chlorines (OC), Organo-phosphates (OP).		
SS-PACK-014	Pesticide Screen 1b	\$105.00	\$115.50
	Includes Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls (PCB).		
SS-PACK-055	Pesticide Screen 2a - Low Level	\$126.00	\$138.60
	Includes Low Level Pesticide Analysis: Organo-chlorines (OC) and Polychlorinated Biphenyls (PCB).		
SS-PACK-056	Pesticide Screen 2b - Low Level	\$136.50	\$150.15
	Includes Low Level Pesticide Analysis: Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls		
	(PCB).		
SS-PACK-017	Petroleum Compounds Assessment 1a	\$94.50	\$103.95
	Includes Total Petroleum Hydrocarbons (TPHC10-C40), BTEX (equivalent to TPHC6- C10).		
SS-PACK-018	Petroleum Compounds Assessment 1b (Total and Speciated)	\$294.00	\$323.40
	Includes Total Petroleum Hydrocarbons (TPHC10-C40), BTEX (equivalent to TPHC6- C10), Speciated Total Petroleum		
	Hydrocarbons (aromatic and aliphatic).		
SS-PACK-118	Residue Screen - Extended (Compost, plant leaf, stem, wood material, feed)	\$280.00	\$308.00
	Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residue).		
SS-PACK-196	Residue Screen – Extended (Soils only)	\$190.00	\$209.00
	Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residue).		
SS-PACK-119	Residue Screen - Complete + Glyphosate	\$450.00	\$495.00
	Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residue)		
	+ Glyphosate Screens.		

All suites have preparation and digest/extract charges included.

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ITEM CODE	METAL SOLIDS SUITES	PRICE	PRICE
TILIVI CODE		excl. GST	incl. GST
SS-PACK-004	Basic Metals Scan - Total Acid Extractable (ICPMS) Includes Aluminium, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$73.50	\$80.85
SS-PACK-188	Extra Elements related to Hair Analysis Includes Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium and Zirconium.	\$180.00	\$198.00

ITEM CODE	METAL SOLIDS SUITES (Cont.)	PRICE	PRICE
II EIII CODE	METAL SOCIOS SOTTES (COIIC.)	excl. GST	incl. GST
SS-PACK-043	Extra Metals Scan - Total Acid Extractable (ICPMS) Includes Antimony, Barium, Bismuth, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$73.50	\$80.85
SS-PACK-046	Special - Metals and Salts Combo - Total Acid Extractable (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Magnesium, Potassium, Sodium and Sulfur).	\$126.00	\$138.60
SS-PACK-045	Total Acid Extractable - Heavy Metals (ICPMS) Includes Lead, Cadmium, Arsenic, Nickel, Aluminium, Mercury, Chromium, Silver, Selenium.	\$52.50	\$57.75
SS-PACK-153	Biochar Heavy Metals Includes Lead, Cadmium, Mercury, Arsenic, Copper, Nickel, Zinc and Chromium.	\$84.00	\$92.40
SS-PACK-161	Specific - ASLP Extractable (ICPMS) Includes Sodium, Potassium, Calcium, Magnesium, Sulfur, Chloride, Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury.	\$94.50	\$103.95
SS-PACK-032	Specific - TCLP Extractable (ICPMS) Includes Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury.	\$94.50	\$103.95
SS-PACK-162	Specific - SPLP Extractable (ICPMS) Includes Sodium, Potassium, Calcium, Magnesium, Sulfur, Chloride, Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury.	\$94.50	\$103.95
SS-PACK-069	Speciated Arsenic Includes toxic arsenic species AsV and AsIII determination using HPLC-ICPMS (Total Arsenic analysis also included).	\$315.00	\$346.50
SS-PACK-070	Speciated Chromium Includes toxic hexavalent chromium species CrVI and CrIII determination using HPLC-ICPMS (Total Chromium analysis also included).	\$315.00	\$346.50
SS-PACK-068	Speciated Mercury Includes toxic mercury species Methyl Mercury and Hg <sup>2+</sup> determination using HPLC-ICPMS. (Total Mercury analysis also included).	\$315.00	\$346.50

ITEM CODE	SOIL PREPARATIONS	PRICE excl. GST	PRICE incl. GST
SS-PREP-002	Hotblock Digest Includes total Aqua-Regia or Nitric Acid digestion of solid samples.	\$12.60	\$13.86
SS-PREP-001	Sample Preparation Includes drying and ring mill grinding.	\$10.50	\$11.55
SS-PREP-005	TCLP Extractions Toxicity Characteristic Leaching Procedure.	\$47.25	\$51.98

Sample Preparation may be required unless a Discounted Testing Suite is selected.

INDIVIDUAL SOURS TESTS	PRICE	PRICE
INDIVIDUAL SOCIOS TESTS	excl. GST	incl. GST
Arsenic - Total	\$31.50	\$34.65
Includes sample preparation/acid digest and analysis by ICPMS.		
Asbestos Identification (Not Quantifiable)	\$73.50	\$80.85
Identification in building material, soil, compost and dust.		
Asbestos Identification and Quantification in Soil	\$84.00	\$92.40
Identification and quantification in soil (using AS4964-2004 or WA/NEPM) (% ACM, % Friable).		
Chromium VI - Hexavalent	\$37.80	\$41.58
Speciation by a screening colourimetric technique which may be subject to matrix interference. Refer to separate		
analysis codes for speciation using HPLC-ICPMS analysis.		
Contamination Foreign Material Fraction Percentage	\$42.00	\$46.20
Includes Fraction % (metal, plaster, rubber, plastic, paper, cloth, paint, wood, other vegetable matter).		
Cyanide - Free	\$47.25	\$51.98
Cyanide - Total	\$63.00	\$69.30
Cyanide (Total Prussic Acid in Plant/Feed samples)	\$105.00	\$115.50
Includes sample preparation and Total Cyanide.		
Fluoride - Total by fusion	\$73.50	\$80.85
	Includes sample preparation/acid digest and analysis by ICPMS.  Asbestos Identification (Not Quantifiable) Identification in building material, soil, compost and dust.  Asbestos Identification and Quantification in Soil Identification and quantification in soil (using AS4964-2004 or WA/NEPM) (% ACM, % Friable).  Chromium VI - Hexavalent Speciation by a screening colourimetric technique which may be subject to matrix interference. Refer to separate analysis codes for speciation using HPLC-ICPMS analysis.  Contamination Foreign Material Fraction Percentage Includes Fraction % (metal, plaster, rubber, plastic, paper, cloth, paint, wood, other vegetable matter).  Cyanide - Free  Cyanide - Total  Cyanide (Total Prussic Acid in Plant/Feed samples) Includes sample preparation and Total Cyanide.	Arsenic - Total Includes sample preparation/acid digest and analysis by ICPMS.  Asbestos Identification (Not Quantifiable) Identification in building material, soil, compost and dust.  Asbestos Identification and Quantification in Soil Identification and quantification in soil (using AS4964-2004 or WA/NEPM) (% ACM, % Friable).  Chromium VI - Hexavalent Speciation by a screening colourimetric technique which may be subject to matrix interference. Refer to separate analysis codes for speciation using HPLC-ICPMS analysis.  Contamination Foreign Material Fraction Percentage Includes Fraction % (metal, plaster, rubber, plastic, paper, cloth, paint, wood, other vegetable matter).  Cyanide - Free  Cyanide - Total  Cyanide (Total Prussic Acid in Plant/Feed samples) Includes sample preparation and Total Cyanide.

ITEM CODE	INDIVIDUAL SOLIDS TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-132	General Metals - ICPMS Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SS-SING-157	Glyphosate (Round Up) + AMPA Screen (All dried solids)	\$270.00	\$297.00
SS-SING-158	Herbicides Phenoxy Acid	\$210.00	\$231.00
SS-SING-051	Hydrocarbons - BTEX - equivalent to TPH(C6-C10)	\$52.50	\$57.75
SS-SING-020	Hydrocarbons - Polycyclic Aromatic (PAH)	\$68.25	\$75.08
SS-SING-192	Hydrocarbons - Polycyclic Aromatic (PAH) by TCLP Includes PAH by TCLP extraction.	\$120.75	\$132.83
SS-SING-115	Hydrocarbons Includes Hydrocarbons (C1-C5). Cost per analyte.	\$42.00	\$46.20
SS-SING-023	Hydrocarbons - Total Petroleum - Speciated Includes Speciated TPH (aromatic or aliphatic).	\$210.00	\$231.00
SS-SING-052	Hydrocarbons - Total Petroleum - TPH (C10-C40)	\$52.50	\$57.75
SS-SING-150	Lead - Total Includes sample preparation, acid digest and analysis by ICPMS.	\$31.50	\$34.65
SS-SING-024	Specific Metals - TCLP Extractable ICPMS  Price per element  Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Silver or Zinc.	\$15.75	\$17.33
SS-SING-133	Non-Standard Metals - ICPMS Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.	\$15.75	\$17.33
SS-SING-053	Organo-chlorines (OC) (Detection Limit - 0.1 ppm)	\$68.25	\$75.08
SS-SING-056	Organo-chlorines (OC) - Low Level (Detection Limit - 0.01 ppm)	\$105.00	\$115.50
SS-SING-054	Organo-phosphates (OP) (Detection Limit - 0.1 ppm)	\$68.25	\$75.08
SS-SING-057	Organo-phosphates (OP) - Low Level (Detection Limit - 0.01 ppm)	\$105.00	\$115.50
SS-SING-159	Organotins (MBT, TBT, DBT)	\$273.00	\$300.30
SS-SING-070	Paint Analysis for Lead	\$31.50	\$34.65
SS-SING-224	PFAS in ASLP leachate – standard level 28 suite with detection to 0.01 μg/L Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in ASLP (Australian Standard Leachate Procedure) leachate.	\$220.50	\$242.55
SS-SING-216	PFAS in solid – standard level 28 suite with detection 0.01 mg/kg Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil.	\$178.50	\$196.35
SS-SING-279	PFAS-28 Standard Level - TOF Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil plus any Total Organofluorine compounds.	\$220.00	\$242.00
SS-SING-278	PFAS-28 Standard Level - TOPA Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil plus PFAS Precursor compounds.	\$345.00	\$379.50
SS-SING-253	PFAS in solid – LOW level 28 suite with detection 0.0008–0.0016 mg/kg Includestheanalysisofper-andpoly-fluoroalkylsubstances(PFAS)insoil.	\$199.50	\$219.45
SS-SING-065	pH (1:5 water)	\$15.75	\$17.33
SS-SING-142	Phenol - Total	\$63.00	\$69.30
SS-SING-029	Phenolics - speciated phenols	\$94.50	\$103.95
SS-SING-055	Polychlorinated Biphenyls (PCB) (Detection Limit - 0.1 ppm)	\$68.25	\$75.08
SS-SING-058	Polychlorinated Biphenyls (PCB) - Low Level (Detection Limit - 0.01 ppm)	\$105.00	\$115.50
SS-SING-217	Semi-Volatile Organic Compounds (SVOC) SVOC includes Phenols.	\$273.00	\$300.30
SS-SING-027	Silica - Total Includes specialised NaOH high temperature fusion extraction of silicon.	\$126.00	\$138.60
SS-SING-223	Silica Gel Clean-up TRH Includes TRH C9-C40 Natural/Petroleum differentiation – silica gel cleanup (removes all of the biogenic, more polar material leaving just the petrogenic based TRH).	\$115.50	\$127.05
SS-SING-140	Synthetic Pyrethroids	\$126.00	\$138.60

ITEM CODE	INDIVIDUAL SOLIDS TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-255	Fats, Oils and Grease of Solids - Hexane 1.5 h soxlet extraction from wet weight solids Includes separate moisture content for conversion of results to dry weight.	\$63.00	\$69.30
SS-SING-126	Volatile Halogenated Compounds (VHC)	\$84.00	\$92.40
SS-SING-026	Volatile Organic Compounds (VOC)	\$120.75	\$132.83

### WATER ASSESSMENT TESTING

All suites have preparation and digest/extract charges included.

		PRICE	PRICE
ITEM CODE	SPECIFIC WATER SUITES	excl. GST	incl. GST
SW-PACK-018	Effluent Monitoring Includes pH, Total Suspended Solids (TSS); Biochemical Oxygen Demand (BOD); Total Oils and Grease (TOG); Total Nitrogen (TN), Total Phosphorus (TP); Nitrate, Nitrite, Phosphate, Ammonium; Faecal Coliforms.	\$199.50	\$219.45
SW-PACK-058	Gas Contamination Monitoring for Dissolved Gases Includes Acetylene, Butane, Ethane, Ethene, Methane and Propane.	\$147.00	\$161.70
SW-PACK-056	Gas Contamination Water Quality Monitoring Includes pH, EC, Total Dissolved Salts (TDS) (calculation), Total Alkalinity, Total Suspended Solids (TSS); Total Petroleum Hydrocarbons (TPH C10-C40), BTEX (Equivalent TPH C6-C10); Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$168.00	\$184.80
SW-PACK-015	Wastewater Monitoring Includes pH, Total Suspended Solids (TSS); Biochemical Oxygen Demand (BOD); Total Oils and Grease (TOG).	\$99.75	\$109.73
SW-PACK-079	Water Contamination Assessment Includes Metals (Total Available Al, As, Cd, Cr, Cu, Fe Pb, Mn, Hg, Ni, Se, Ag, Zn), PAH, TPH, BTEX, and speciated Phenolics.	\$231.00	\$254.10
SW-PACK-071	Water quality for concrete mixes under AS1379 Includes pH, EC, TDS (by calc), Total Suspended Solids, Total Oils and Grease, Sugars (Biological Oxygen Demand), Chloride, Sodium and Sulfate.	\$147.00	\$161.70

All suites have preparation and digest/extract charges included.

ITEM CODE	RESIDUE WATER SUITES	PRICE excl. GST	PRICE incl. GST
SW-PACK-072	Complete Waters Residue Screen Includes RS1 + RS2 (OCOP Pesticides + Synthetic Pyrethroids - 80+ Residues + Herbicide and Fungicide - 40+ Residue)	\$220.00	\$242.00
SW-PACK-009	Pesticide Screen 1a Includes Organo-chlorines (OC), Organo-phosphates (OP).	\$73.50	\$80.85
SW-PACK-010	Pesticide Screen 1b Includes Organo-chlorines (OC), Organo-phosphates (OP) and Polychlorinated biphenyls (PCB).	\$94.50	\$103.95
SW-PACK-024	Pesticide Screen 2a - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC) and Organo-phosphates (OP).	\$136.50	\$150.15
SW-PACK-027	Pesticide Screen 2b - Low Level Includes Low Level Pesticide Analysis: Organo-chlorines (OC), Organo-phosphates (OP), Polychlorinated Biphenyls (PCB).	\$147.00	\$161.70
SW-PACK-059	Pesticide Screen 3 - In Oil (Detection est. < 10 ppm) Includes Organo-chlorines (OC), Organo-phosphates (OP). Note: 25 mL required.	\$157.50	\$173.25
SW-PACK-075	Pesticides/Residue Screen – In Oil (Detection 0.1 ppm) Includes Organo-chlorines (OC), Organo-phosphates (OP) and a Multi-residue scan. Note: 25 mL required.	\$189.00	\$207.90

All suites have preparation and digest/extract charges included

	All suites have preparation and digesi		
ITEM CODE	METAL WATER SUITES	PRICE	PRICE
TILIVI CODE	WEIGH WATER SOITES	excl. GST	incl. GST
SW-PACK-031	Basic Metals Scan - As Supplied (ICPMS)	\$57.75	\$63.53
	Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium,		
	Silver and Zinc.		
SW-PACK-040	Basic Metals Scan - Dissolved (filtered then acidified) (ICPMS)	\$63.00	\$69.30
	Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium,		
	Silver and Zinc.		
SW-PACK-030	Basic Metals Scan - Total Recoverable (digested with nitric acid) (ICPMS)	\$68.25	\$75.08
	Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium,		
	Silver and Zinc.		

ITEM CODE	METAL WATER SUITES (Cont.)	PRICE excl. GST	PRICE incl. GST
SW-PACK-029	Basic Metals Scan - Total Available/Acid Soluble (acidified) (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$63.00	\$69.30
SW-PACK-043	Extra Metals Scan - As Supplied (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$57.75	\$63.53
SW-PACK-044	Extra Metals Scan - Dissolved (filtered then acidified) (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$63.00	\$69.30
SW-PACK-045	Extra Metals Scan - Total Available/Acid Soluble (acidified) (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$63.00	\$69.30
SW-PACK-046	Extra Metals Scan - Total Recoverable (digested with nitric acid) (ICPMS) Includes Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$68.25	\$75.08
SW-PACK-060	Saline Water Metals (Low Level) > 20 mS/cm (As Supplied) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$84.00	\$92.40
SW-PACK-061	Saline Water Metals (Low Level) > 20 mS/cm (Dissolved) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$89.25	\$98.18
SW-PACK-062	Saline Water Metals (Low Level) > 20 mS/cm (Total Available/Acid Soluble) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$89.25	\$98.18
SW-PACK-063	Saline Water Metals (Low Level) > 20 mS/cm (Total Recoverable) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Barium, Beryllium, Bismuth, Cobalt, Molybdenum, Thallium, Uranium and Vanadium).	\$94.50	\$103.95
SW-PACK-051	Special - Metals and Salts Combo - As Supplied (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Potassium, Sodium and Sulfur).	\$115.50	\$127.05
SW-PACK-052	Special - Metals and Salts Combo - Dissolved (filtered then acidified) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Potassium, Sodium and Sulfur).	\$120.75	\$132.83
SW-PACK-053	Special - Metals and Salts Combo - Total Available/Acid Soluble (acidified) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts ( Calcium, Chloride, Magnesium, Potassium, Sodium and Sulfur).	\$120.75	\$132.83
SW-PACK-054	Special - Metals and Salts Combo - Total Recoverable (digested with nitric acid) (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Bromide, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Chloride, Magnesium, Potassium, Sodium and Sulfur).	\$126.00	\$138.60
SW-PACK-067	Speciated Arsenic Includes toxic arsenic species AsV and AsIII determination using HPLC-ICPMS (Total Arsenic analysis also included) 1% of volume HCI preservation in PP.	\$367.50	\$404.25
SW-PACK-068	Speciated Chromium Includes toxic hexavalent chromium species CrVI and CrIII determination using HPLC-ICPMS (Total Chromium analysis also included) 1 M NaOH preservation (approx. 3 Drops/30 mL to adjust pH to 8–9.5) in PP.	\$367.50	\$404.25
SW-PACK-066	Speciated Mercury Includes toxic mercury species Methyl Mercury and Hg <sup>2+</sup> determination using HPLC-ICPMS. (Total Mercury analysis also included) 1% of volume HCl preservation in glass jar.	\$367.50	\$404.25
SW-PACK-074	Metals Screen in Oil - Total Acid Digestable (ICPMS) Includes Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc. Note: 25 mL required to complete testing.	\$94.50	\$103.95

ITEM CODE	WATER PREPARATIONS	PRICE excl. GST	PRICE incl. GST
SW-PREP-003	Filtered/Dissolved Metals Immediate filtration through 0.45 μm filter followed by acidification with Nitric acid. It is particularly important where waters are high in suspended clay matter, where Iron and Aluminium may be present.	\$5.25	\$5.78
SW-PREP-006	Saline Waters Instrument Setup (per batch)	\$105.00	\$115.50
SW-PREP-002	Total Available/Acid Soluble Metals  Acidification with Nitric acid. Used on nearly all environmental waters, acid sulfate waters, groundwater and surfacewaters (According to ANZECC guidelines). Also used for clean waters, drinking waters, when acidified in the field and when requested.	\$5.25	\$5.78
SW-PREP-001	Total Recoverable Metals  Nitric Acid digest. Used on high sludge/solid waters and when requested.	\$15.75	\$17.33

	Sample Preparation may be required unless a Discounte	d Testing Suit	e is selected.
ITEM CODE	INDIVIDUAL WATER TESTS	PRICE	PRICE
SW-SING-142	Absorbance (Wavelength 440 nm – Filtered 0.22 micron)	excl. GST \$21.00	incl. GST \$23.10
SW-SING-012	Biochemical Oxygen Demand (BOD) - Total	\$47.25	\$51.98
SW-SING-012 SW-SING-013	Chemical Oxygen Demand (COD)	\$47.25	\$51.98
	Chromium VI - Hexavalent	\$37.80	
SW-SING-030	Speciation by a screening colourimetric technique which may be subject to matrix interference. Refer to separate analysis codes for speciation using HPLC-ICPMS analysis.	Ş37.6U	\$41.58
SW-SING-056	Conductivity - Electrical	\$10.50	\$11.55
SW-SING-029	Cyanide - Total	\$52.50	\$57.75
SW-SING-102	General Metals - As Supplied (external prep) Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-103	General Metals - Dissolved Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-104	General Metals - Total Available/Acid Soluble Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-105	General Metals - Total Recoverable Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-133	General Metals - Total Acid Digestable Price per element Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Bromide, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.	\$10.50	\$11.55
SW-SING-116	Glyphosate (Round Up)	\$170.00	\$187.00
SW-SING-098	Herbicides Phenoxy Acid	\$178.50	\$196.35
SW-SING-062	Hydrocarbons - BTEX (Equivalent to TPH C6-C10)	\$52.50	\$57.75
SW-SING-008	Hydrocarbons - Polycyclic Aromatic Hydrocarbons (PAH)	\$68.25	\$75.08
SW-SING-063	Hydrocarbons - Total Petroleum (TPH C10-C40)	\$52.50	\$57.75
SW-SING-112	Methane	\$115.50	\$127.05
SW-SING-106	Non-Standard Metals - As Supplied Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.	\$15.75	\$17.33

ITEM CODE	INDIVIDUAL WATER TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SW-SING-107	Non-Standard Metals - Dissolved	\$15.75	\$17.33
	Price per element		
	Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum, Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium,		
	Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.		
SW-SING-108	Non-Standard Metals - Total Available/Acid Soluble	\$15.75	\$17.33
	Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum,		
	Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium,		
	Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.		
SW-SING-109	Non-Standard Metals - Total Recoverable	\$15.75	\$17.33
	Price per element Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Gallium, Germanium, Gold, Holmium, Lanthanum,		
	Lutetium, Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium,		
	Thulium, Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.		
SW-SING-064	Organo-chlorines (OC)	\$68.25	\$75.08
SW-SING-113	Organo-chlorines (OC) - In Oil  Note: 25 mL required.	\$126.00	\$138.60
SW-SING-143	Chemical Oxygen Demand - Filtered (COD-F)	\$52.50	\$57.75
	Filtered GFC 1.2micron equivalent	<b>452.50</b>	φσσ
SW-SING-096	Organo-chlorines (OC) - Low Level	\$94.50	\$103.95
SW-SING-065	Organo-phosphates (OP)	\$68.25	\$75.08
SW-SING-114	Organo-phosphates (OP) - In Oil	\$126.00	\$138.60
SW-SING-097	Note: 25 mL required.	\$94.50	\$103.95
SW-SING-097 SW-SING-117	Organo-phosphates (OP) - Low Level Organotins (MBT, TBT, DBT)	\$94.50	\$300.30
SW-SING-058	Oxygen - Dissolved (DO)	\$10.50	\$11.55
SW-SING-121	PFAS in water – standard level 28 suite with detection 0.01–0.05 μg/L	\$157.50	\$173.25
311 31110 121	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in water.	\$137.50	Ç173.23
SW-SING-134	PFAS in water – LOW level 28 suite with detection 0.0002 μg/L	\$178.50	\$196.35
	Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in water.	4.0.00	*
SW-SING-055	pH	\$10.50	\$11.55
SW-SING-038	Phenol - Total	\$63.00	\$69.30
SW-SING-026	Phenolics - Speciated Phenols	\$94.50	\$103.95
SW-SING-066 SW-SING-099	Polychlorinated Biphenyls (PCB)  Polychlorinated Biphenyls (PCB) - Low Level	\$68.25 \$94.50	\$75.08 \$103.95
SW-SING-059	Salinity	\$10.50	\$105.95
SW-SING-037	Semi-Volatile Organic Compounds (SVOC)	\$231.00	\$254.10
3W-3HVG-111	SVOC includes Phenols.	\$231.00	72J4.10
SW-SING-141	Silica Gel Clean-up TRH	\$115.50	\$127.05
	Includes TRH C9-C40 Natural/Petroleum differentiation – silica gel cleanup (removes all of the biogenic, more polar		
SW-SING-122	material leaving just the petrogenic based TRH).  Silica - Total	\$157.50	\$173.25
244-DING-177	Includes specialised NaOH high temperature fusion extraction of silicon as per dry weight.	\$157.5U	<i>3</i> 1/3.23
SW-SING-011	Total Oils and Grease (TOG) - Hexane extractable	\$52.50	\$57.75
SW-SING-003	Total Suspended Solids (TSS)	\$21.00	\$23.10
SW-SING-037	Trihalomethanes (THM)	\$63.00	\$69.30
SW-SING-095	Volatile Halogenated Compounds (VHC)	\$94.50	\$103.95
SW-SING-094	Volatile Organic Compounds (VOC)	\$120.75	\$132.83
	VOC includes BTEX.		

### **PHYSICAL PARAMETERS ANALYTICAL SERVICES**

### PHYSICAL PARAMETER TESTING

All suites have preparation and digest/extract charges included.

ITEM CODE	PHYSICAL PARAMETER SUITES	PRICE excl. GST	PRICE incl. GST
SS-PACK-138	Atterberg Limits Includes Liquid Limit, Plastic Limit, Plastic Index and Shrinkage Limit. Note: 1 kg of sample required.	\$178.50	\$196.35
SS-PACK-125	RUSLE Soil Erodibility Factor Includes texture grading through ISSS Hydrometer and 0.1, 0.2 and 2.0 mm Sieve analysis, Organic Matter by calculation from LECO Total Organic Carbon, Emerson Dispersion Class using the Emerson Aggregate Test and determination of K Factor. Client must provide field assessment of Soil Structure and Permeability using RUSLE classes for K Factor calculation.	\$225.75	\$248.33

Individual tests may require sample preparation.

	Individual tests may require sample preparatio			
ITEM CODE	PARTICLE SIZE TESTS	PRICE	PRICE	
SS-SING-194	Gravel Content	excl. GST	incl. GST \$23.10	
33-31NG-194	Includes sieving > 2 mm stones and organic material.	\$21.00	\$25.10	
SS-PACK-155	<b>Biochar Particle Size Analysis - Dry Sieving</b> Dry sieving for fractions > 2 mm, 1-2 mm, 500 μm-1 mm, 250-500 μm, 125-250 μm, 63-125 μm, < 63 μm.	\$94.50	\$103.95	
SS-SING-123	Particle Size Grading under AS4454 Includes percentage mass retained on 5 mm and 16 mm sieve. Note: 2 kg of sample is required to complete testing.	\$31.50	\$34.65	
SS-SING-184	Particles Size Grading - Large particles under AS4419:2003 Includes percentage mass retained on 10 mm, 20 mm, 50 mm and 75 mm sieve. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20	
SS-SING-226	Particles Size Grading - Large particles under AS4419:2018 Includes percentage mass retained on 2 mm, 5 mm, 20 mm sieve. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20	
SS-SING-244	Particles Size Grading for Structural Support under AS4419:2018 Includes percentage mass passing on 63.0 mm, 53.0 mm, 37.5 mm, 26.5 mm, 19.0 mm, 13.2 mm, 4.75 mm fractions. Note: 2 kg of sample is required to complete testing.	\$63.00	\$69.30	
SS-SING-227	Top Dress - Particles under AS4419:2018 Includes percentage mass retained of organics particles on 2 mm, 5 mm, 8 mm sieve. Also mass retained of mineral particles on 2 mm sieve. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20	
SS-SING-243	Particle Size Analysis for Wetlands under AS4419:2018  Particle size of sediment and soil by hydrometer and sieve. Percentage mass retained on sieve. Includes > 2 mm, 1.0–2.0 mm, 0.5–1.0 mm, 0.25–0.5 mm, 0.1–0.25 mm, 50 μm–0.1 mm, 2–50 μm, < 2 μm fractions. Note: 500 g of sample is required to complete testing.	\$115.50	\$127.05	
SS-SING-254	Particle Size Analysis - Dry Sieving (FMSBS 2015)  Dry sieving for fractions >2.0 mm, 1-2 mm, 0.5-1 mm, 0.25-0.5 mm, 0.15-0.25 mm, 0.05-0.15 mm, < 0.05 mm.	\$78.75	\$86.63	
SS-SING-011	Particle Size Analysis - Dry Sieving  Dry sieving for fractions > 2 mm, 1-2 mm, 500 μm-1 mm, 250-500 μm, 125-250 μm, 63-125 μm, < 63 μm.	\$78.75	\$86.63	
SS-SING-198	Particle Size Analysis - Wet Sieving  Wet sieving for fractions > 2 mm, 1-2 mm, 500 μm-1 mm, 250-500 μm, 125-250 μm, 63-125 μm, < 63 μm.	\$157.50	\$173.25	
SS-SING-012	Particle Size Analysis - ISSS Hydrometer  Particle size of sediment and soil by hydrometer. Includes > 2 mm, > 20 μm, 20–2 μm and < 2 μm fractions.	\$94.50	\$103.95	
SS-PACK-126	Particle Size Analysis – ISSS Hydrometer plus 0.2 and 2.0 mm Sieving Includes particle sizing of soils and sediments for ISSS classification: < 2 μm, 2–20 μm and 20 μm-2 mm by hydrometer; 0.2–2.0 mm and > 2 mm by sieving.	\$105.00	\$115.50	
SS-SING-236	Particle Size Analysis – ISSS and USDA Hydrometer  Particle size of sediment and soil by hydrometer. Includes > 2 mm, > 50 μm, > 20 μm, 50 μm–2 mm, 2–50 μm, 2–20 μm and < 2 μm fractions.	\$120.75	\$132.83	
SS-SING-235	Particle Size Analysis – USDA Hydrometer Particle size of sediment and soil by hydrometer. Includes > 2 mm, > 50 μm, 50 μm–2 mm, 2–50 μm and < 2 μm fractions.	\$115.50	\$127.05	
SS-SING-146	Particle Size Analysis - Laser Diffraction Particle size analysis using a Malvern Mastersizer 3000. Span 0.01 to 3000 μm. Size classes dictated by client requirments. Includes organic and acid digestion of organic matter and shell, as required. Price dependent upon application and sample amounts.	\$168.00	\$184.80	

ITEM CODE	PARTICLE SIZE TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-237	Laser Diffraction – Methylated Spirits Includes dry or wet sieving at 2 mm followed by digestion and dispersion as required. Particle size distribution from 3000 to 0.01 μm. Size classes dictated by clients requirements. Price dependent upon application and sample amounts.	\$178.50	\$196.35
FA-PACK-013	Particle Size Analysis – Laser Diffraction – Fine Fertiliser Laser Diffraction Particle Size Analysis including 2000 to 0.01 $\mu$ m. Size fractions include < 0.01 mm, 0.01-0.02 mm, 0.02-0.03 mm, 0.03-0.04 mm, 0.04-0.05 mm, 0.05-0.06 mm, 0.06-0.07 mm, 0.07-0.08 mm, 0.08-0.09 mm, 0.09-0.1 mm, 0.1-0.125 mm, 0.125-0.25 mm, 0.25-0.5 mm, 0.5-1.0 mm, > 1.0 mm fractions. Price dependent upon application and sample amounts.	\$178.50	\$196.35
FA-PACK-012	Particle Size Analysis – Dry Sieving – Coarse Fertiliser  Dry sieving Particle Size Analysis including > 1 mm, 0.85-1 mm, 0.3-0.85 mm, < 0.3 mm fractions.	\$52.50	\$57.75
SS-SING-245	Vermicast Sieve Test under AS4454:2012 Includes percentage mass retained on 1.18 mm sieve. Note: 1 kg of sample is required to complete testing.	\$42.00	\$46.20

Individual tests may require sample preparation.

ITEM CODE	DISPERSION AND AGGREGATION TESTS	PRICE excl. GST	PRICE incl. GST
SS-SING-167	Dispersability under AS4419	\$42.00	\$46.20
SS-SING-215	Dispersion Percent Includes Dispersion Percent and ISSS Hydrometer particle size analysis.	\$115.50	\$127.05
SS-SING-205	Emerson Aggregate Stability Test for Wastewater  This modified Emerson aggregate test (MEAT alternative) is the best option for assessment of aggregate stability for land application areas. Unlike MEAT results, the classes determined by this test can be directly related to those of the Emerson Aggregate Test.	\$31.50	\$34.65
SS-SING-025	Emerson Aggregate Test (EAT) Provides an Emerson Dispersion Class	\$47.25	\$51.98
SS-SING-085	Emerson Dispersion Index (Loveday and Pyle, 1973)	\$47.25	\$51.98
SS-SING-015	Modified Emerson Aggregate Test (MEAT)	\$47.25	\$51.98
SS-SING-206	R1 and R2 Dispersion Ratio	\$115.50	\$127.05
SS-SING-196	Slaking and Clouding - Test Methods Q161 and Q162	\$31.50	\$34.65

Individual tests may require sample preparation.

		PRICE	PRICE
ITEM CODE	WATER HOLDING AND PERMEABILITY TESTS	excl. GST	incl. GST
CA-PACK-021	AFP and WHC under AS3743:2003 Includes Air-Filled Porosity (AFP) and Water Holding Capacity (WHC). Note: 2 kg of sample is required to complete testing.	\$52.50	\$57.75
SS-SING-120	Air-filled Porosity (AFP) under AS3743  Note: 2 kg of sample is required to complete testing.	\$26.25	\$28.88
SS-SING-229	Water repellence of soil under AS4419:2018 Includes water repellence of soil and if required, further testing to ethanol repellence of soil. Note: 200 g of sample is required to complete testing.	\$15.00	\$16.50
SS-SING-156	Permeability under AS4419:2003  Note: 2 kg of sample is required to complete testing.	\$78.75	\$86.63
SS-SING-230	Permeability under AS4419:2018 This includes 8, 16 and 32 drops. Note: 1 kg of sample is required to complete testing.	\$78.75	\$86.63
SS-SING-231	Saturated Hydraulic Conductivity under ASTM F1815 - 11  Note: 1 kg of sample is required to complete testing.	\$78.75	\$86.63
SS-SING-013	Soil Water Retention Curve - Estimation by modelling using surrogate methods Includes an estimate of soil hydraulic properties including Field Capacity and Permanent Wilting Point, saturated hydraulic conductivity and van Genuchten Soil Moisture Curve parameters. Requires field soil bulk density or target bulk density in preference to lab bulk density. The method uses USDA hydrometer particle size analysis and pedotransfer software.	\$157.50	\$173.25
SS-SING-207	Soil Water Retention Curve - in-situ soil cores - Ceramic Plate & Dewpoint Potentiameter Includes data for three points on the Soil Water Retention Curve: wet-end soil water content at 1 kPa and 10 kPa (Field Capacity) and dry-end soil water content at Air-Dryness (100 MPa). A ceramic plate and hanging water column is used for the wet end, while the dry end is measured using a dew point potentiameter (Decagon WP4-T). Soil water content at 33 kPa (Field Capacity) and 1500 kPa (Permanent Wilting Point) can be included with selection of SS-SING-247. Note: In-situ soil cores of 30–50 mm height and no more than 75 mm diameter are required.	\$262.50	\$288.75

ITEM CODE	WATER HOLDING AND PERMEABILITY TESTS (Cont.)	PRICE excl. GST	PRICE incl. GST
SS-SING-210	Soil Water Retention Curve - loose soil/target bulk density - Ceramic Plate & Dewpoint Potentiameter Includes data for three points on the Soil Water Retention Curve: wet-end soil water content at 1 kPa and 10 kPa (Field Capacity) and dry-end soil water content at Air-Dryness (100 MPa). A ceramic plate and hanging water column is used for the wet end, while the dry end is measured using a dew point potentiameter (Decagon WP4-T). Soil water content at 33 kPa (Field Capacity) and 1500 kPa (Permanent Wilting Point) can be included with selection of SS-SING-247. Note: 1–2 kg of loose soil is required (more for coarser textured material) and a target Bulk Density value must be provided by the client.	\$367.50	\$404.25
SS-SING-247	Soil Water Content at Field Capacity and Permanent Wilting Point Includes soil water content at 33 kPa (Field Capacity) and 1500 kPa (Permanent Wilting Point). This test can only be selected with either SS-SING-207 and SS-SING-210.	\$147.00	\$161.70
SS-SING-256	Soil Water Retention Curve - 6 point curve - Water Content/Field Capacity/Permanent Wilting Point Includes soil water content at 33 kPa (Field Capacity) and 1500 kPa (Permanent Wilting Point) as well as 3 kPa. This test can only be selected with either SS-SING-207 and SS-SING-210.	\$168.00	\$184.80
SS-SING-121	Water Holding Capacity (WHC) under AS3743  Note: 2 kg of sample is required to complete testing.	\$26.25	\$28.88
SS-SING-275	Water Holding Capacity under AS4419:2018  Note: 500 g of sample is required to complete testing.	\$26.25	\$28.88
SS-SING-197	Water repellence of soil - Test Method Q160	\$15.75	\$17.33
SS-SING-182	Wettability under AS4419	\$21.00	\$23.10
SS-SING-072	Wettability under AS4454/AS3743	\$21.00	\$23.10

ITEM CODE	MOISTURE CONTENT TESTS	PRICE excl. GST	PRICE incl. GST
SS-SING-221	Air Dry Moisture Content - ADMC (%) at 105°C.  Moisture content of an air-dry (40°C) sample, further dried to 105°C (oven-dry equivalent).	\$10.50	\$11.55
SS-SING-225	Dry Matter Content (%) at 105°C Proportion of moisture and oven-dry solid in 'as received' sample (105°C).	\$10.50	\$11.55
SS-SING-001	Moisture Content - As Received (%) at 105°C  Oven-dry moisture content as a per cent of the 'as-received' sample (105°C).	\$10.50	\$11.55
SS-SING-233	Moisture Content - As Received (%) at 40°C  Moisture content as a per cent of air-dry equivalent soil (40°C).	\$10.50	\$11.55
SS-SING-222	Moisture Content - As Received (%) Gravimetric at 105°C Soil moisture as a per cent of dry mass at 105°C (oven-dry equivalent).	\$10.50	\$11.55
SS-PREP-007	Total Dry Weight - Air dry basis  Mass of the sample dried at 40°C.	\$6.30	\$6.93
SS-PREP-017	Total Dry Weight - Oven dry basis  Mass of the sample dried at 105°C. Used to calculate bulk density when cores are supplied.	\$10.50	\$11.55

ITEM CODE	BULK DENSITY TESTS	PRICE excl. GST	PRICE incl. GST
SS-PREP-021	Bulk Density - Lab Based  Bulk Density - Lab based compacting of a supplied loose soil/sediment to a set volume, to simulate equivalent field conditions - note for the most accurate method use field bulk density rings of known volume with SS-PREP-017 for total oven dry weight.	\$10.50	\$11.55
SS-SING-183	Bulk Density under AS4419  Lab based bulk density on landscape soils. Note: 1 kg of sample is required to complete testing.	\$21.00	\$23.10
SS-SING-139	Bulk Density under AS4454/AS3743  Lab based bulk density on compost and potting mix. Note: 1 kg of sample is required to complete testing.	\$21.00	\$23.10
SS-SING-274	Bulk Density under AS4419:2018 This includes 8, 16 and 32 drops. Note 1 kg of sample is required to complete testing.	\$63.00	\$69.30

ITEM CODE	COLOUR AND TEXTURE	PRICE excl. GST	PRICE incl. GST
SS-SING-218	Colour (Munsell Soil Colour Classification)	\$8.40	\$9.24
SS-SING-086	Texture - Australian Soil Classification (Isbell and NCST, 2016)	\$26.25	\$28.88
SS-SING-164	Texture - Full under AS4419	\$26.25	\$28.88
SS-SING-208	Texture - Full (NCST, 2009) This method is used for acid sulfate soil action criteria.	\$26.25	\$28.88

Individual tests may require sample preparation.

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ITEM CODE	PHYSICAL CONTAMINANTS TESTS	PRICE	PRICE
TILIVI CODE	FITTSICAL CONTAMINANTS TESTS	excl. GST	incl. GST
SS-SING-127	Contamination Foreign Material Fraction Percentage Includes Fraction % (metal, plaster, rubber, plastic, paper, cloth, paint, wood, other vegetable matter).	\$42.00	\$46.20
SS-SING-228	Physical Contaminants under AS4419:2018  Applies to soil types as identified by AS4419:2018. Includes contamination with glass, metal, rigid plastics, light flexible film plastics. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-245	Vermicast Sieve Test under AS4454:2012 Includes percentage mass retained on 1.18 mm sieve. Note: 1 kg of sample is required to complete testing.	\$42.00	\$46.20
SS-SING-122	Visible Contaminants under AS4454  Applies to composts from agricultural or source separated organics. Includes contamination with glass, metal, rigid plastics, stones, lumps of clay, light flexible film plastics. Note: 2 kg of sample is required to complete testing.	\$42.00	\$46.20

### **OTHER SOLID ANALYTICAL SERVICES**

### **GENERAL SOLIDS TESTING**

	All suites have preparation and digest	extract char	ges included.
ITEM CODE	SOLIDS SUITES	PRICE excl. GST	PRICE incl. GST
SS-PACK-015	Aggressivity Assessment Includes Moisture, Basic Texture; pH, EC, Resistivity (calculation), Soluble Chloride, Sulfate.	\$73.50	\$80.85
SS-PACK-163	Biochar Totals Analysis Plus Includes Moisture Content, Bulk Density; Ash Content and Volatile Matter (750°C); pH, EC (1:10 water); Total Nitrogen (TN), Total Carbon (TC), Total Organic Carbon (TOC); Total Hydrogen, Total Oxygen; Totals (Ca, Mg, K, Na, S, P, Zn, Mn, Fe, Cu, B, Si, Al, Mo, Co, Se, Cd, Pb, As, Cr, Ni, Hg, Ag); Acid Neutralising Capacity (ANC). Note: 500 g of sample is required to complete testing.	\$346.50	\$381.15
SS-PACK-053	Concrete Quality Analysis Includes concrete crushing, Chloride and Sulfate.	\$84.00	\$92.40
SS-PACK-034	DTPA Extractable Micronutrients Includes Iron, Copper, Zinc, Manganese.	\$42.00	\$46.20
SS-PACK-073	Incubation - Slab  This method is used to assess the effectiveness of a soil's Acid Neutralising Capacity (ANC). The incubation is maintained and pH-INC taken fortnightly until the soil pH changes by at least 0.5 pH unit to below 4, or for at least 8 weeks until pH-INC is stable.	\$189.00	\$207.90
SS-PACK-088	LECO - Total Carbon and Total Sulfur Includes Total Carbon (TC) and Total Sulfur (TS) (LECO SC832).	\$36.75	\$40.43
SS-PACK-022	Excavated Natural Material (ENM) Classification 2012 (replaced by SS-PACK-051) Includes pH, EC (water 1:5); Foreign Material; Copper, Lead, Cadmium, Zinc, Arsenic, Chromium, Nickel, Mercury; Polycyclic Aromatic Hydrocarbons (PAH); Total Petroleum Hydrocarbons (C10-C36), BTEX (C6-C9), Volatile Halogen Compounds (VHC).	\$315.00	\$346.50
SS-PACK-036	Mehlich III Exchangeable Cations Includes Mehlich III Extractable Sodium, Potassium, Calcium, Magnesium, Phosphorus.	\$42.00	\$46.20
SS-PACK-037	Mehlich III Exchangeable Cations and Micronutrients Includes Mehlich III Extractable Sodium, Potassium, Calcium, Magnesium, Phosphorus, Sulfur, Aluminium, Iron, Copper, Zinc, Manganese, Boron.	\$63.00	\$69.30
SS-PACK-141	Microbial Biomass Assessment - Compost Includes biomasses of 12 microbial groups relevant for compost quality, health and function.	\$313.95	\$345.35
SS-PACK-140	Microbial Biomass Assessment - Soil Includes biomasses of 12 microbial groups relevant for soil quality, health and function.	\$271.95	\$299.15
SS-PACK-038	Micro-nutrient Extract by CaCl <sub>2</sub> Includes Plant available Boron, Silica.	\$31.50	\$34.65
SS-PACK-039	Morgan Available Extract Includes Calcium, Magnesium, Potassium, Phosphorus.	\$42.00	\$46.20
SS-PACK-019	Nutrients - KCI Extractable Includes Nitrate, Ammonium, Phosphate.	\$52.50	\$57.75
SS-PACK-033	Nutrients - Water Extractable Includes Nitrate, Phosphate, Ammonium.	\$52.50	\$57.75
SS-PACK-010	pH and EC Includes soil pH and EC (1:5 water).	\$26.25	\$28.88
SS-PACK-003	Septic Disposal Soil Assessment Includes moisture, pH(CaCl <sub>2</sub> ), EC, Total Dissolved Salts (TDS) (calculation); Exchangeable Sodium, Potassium, Calcium, Magnesium, Aluminium, Hydrogen, Exchangeable Sodium Percentage, Cation Exchange Capacity; Phosphorus Sorption Capacity; Emerson Aggregate Stability Test for Wastewater.	\$168.00	\$184.80
SS-PACK-143	Soil Testing for Biochar Application Includes Moisture, pH, EC (1:5 water); Total Organic Carbon (TOC), Total Nitrogen (TN), TC/TN Ratio; Available Nitrogen (Nitrate); Soluble Chloride; Total Metals (Sb, As, Be, B, Cd, Co, Cu, Cr, Pb, Mn, Mo, Ni, Se, Sn, V, Zn, S, P, Hg); Soluble Cations (Ca, Mg, K, Na). Note: 300 g of sample is required to complete testing.	\$215.25	\$236.78
SS-PACK-035	SOUR Test Includes Moisture, Volatile Solids Concentration, Specific Oxygen Uptake Rate (SOUR) with an incubation of 20°C.	\$105.00	\$115.50
SS-PACK-164	Sulfate to Chloride Ratio Includes Sulfate and Chloride (1:5 water) and Sulfate/Chloride Ratio.	\$52.50	\$57.75
SS-PACK-110	Total NPK Analysis Includes Total Nitrogen, Total Phosphorus, Total Potassium.	\$63.00	\$69.30

ITEM CODE	SOLIDS PREPARATIONS	PRICE excl. GST	PRICE
SS-PREP-010	Acid Sulfate Soil - Sample Preparation - Required for all individual testing Includes 80°C moisture content, drying and ring mill grinding. Required for all samples analysed on a dry weight	\$10.50	incl. GST \$11.55
SS-PREP-024	Ash Analysis Preparation Includes moisture (105°C) and ash content (550°C) whereby ash is analysed.	\$31.50	\$34.65
SS-PREP-013	Biosecurity Handling Charge	\$105.00	\$115.50
SS-PREP-021	Bulk Density - Lab Based  Bulk Density - Lab based compacting of a supplied loose soil/sediment to a set volume, to simulate equivalent field conditions - note for the most accurate method use field bulk density rings of known volume with SS-PREP-017 for total oven dry weight.	\$10.50	\$11.55
SS-PREP-015	Exchangeable Cation Pre-treatment for Soluble Salts Includes pretreatment with aqueous ethanol and aqueous glycerol to remove soluble salts. Recommended on soils with EC > 0.3 dS/m.	\$10.50	\$11.55
SS-PREP-020	Exchangeable Cation Suppression of Carbonates Includes pretreatment with aqueous ethanol and aqueous glycerol to remove soluble salts then extraction with 1 M Alcoholic NH <sub>4</sub> Cl to suppress solid phase carbonates. Testing according to Method 15C1 with other agricultural tests.	\$42.00	\$46.20
SS-PREP-014	Fertiliser Handling Charge	\$52.50	\$57.75
SS-PREP-016	Fizz Test for Carbonates This method is used to indicate the presence of carbonates.	\$3.15	\$3.47
SS-PREP-027	Freeze Drying of solid samples (ie. marine organisms, flesh) Used for tissue or marine samples not suitable for oven drying.	\$25.00	\$27.50
SS-PREP-002	Hotblock Digest Includes total Aqua-Regia or Nitric Acid digestion of solid samples.	\$12.60	\$13.86
SS-PREP-003	Leaching Includes 1:10 solid/water leaching with filtration.	\$8.40	\$9.24
SS-PREP-009	Leaf Washing Please advise with samples.	\$10.50	\$11.55
SS-PREP-025	Medicinal Cannabis and Hemp Handling Fee	\$80.00	\$88.00
SS-PREP-008	Microwave Digest	\$21.00	\$23.10
SS-PREP-028	Pore Water Extraction of sediment sample (i.e. centrifuge of 50 mL subsamples of sediment to extract available pore water or alternative backup option of water added and extracted).	\$21.00	\$23.10
SS-PREP-019	Repacking to Target Bulk Density	\$110.25	\$121.28
SS-PREP-004	Sample Compositing Includes sample compositing and storage of individual samples for at least 2 months to allow for individual testing if required. Charge per individual sample used in the composite.	\$4.20	\$4.62
SS-PREP-023	Sample Compositing for Soil Carbon Subsoils (30–100 cm) Includes compositing charge for composite subsoil samples tested under 2018 CFI methodology.	\$36.75	\$40.43
SS-PREP-022	Sample Compositing for Soil Carbon Topsoils (0–30 cm) Includes compositing charge for composite topsoil samples tested under 2018 CFI methodology.	\$15.75	\$17.33
SS-PREP-001	Sample Preparation Includes drying and ring mill grinding.	\$10.50	\$11.55
SS-PREP-026	Sample Preparation - Crushing/grinding only Includes crushing/grinding when samples are supplied already dried.	\$6.00	\$6.60
SS-PREP-012	Sample Storage of Fresh Samples Includes sample storage of supplied samples (1st month storage is free) for up to 12 months at \$10.50 per month.	\$10.50	\$11.55
SS-PREP-018	Saturated Paste Extract Includes extraction of saturated paste (14A3). Please select required analytical parameters from the waters codes.	\$73.50	\$80.85
SS-PREP-005	TCLP Extractions Toxicity Characteristic Leaching Procedure.	\$47.25	\$51.98
SS-PREP-007	<b>Total Dry Weight - Air dry basis</b> Mass of the sample dried at 40°C.	\$6.30	\$6.93
SS-PREP-017	Total Dry Weight - Oven dry basis  Mass of the sample dried at 105°C. Used to calculate bulk density when cores are supplied.	\$10.50	\$11.55

	Single tests may re		
ITEM CODE	INDIVIDUAL SOLIDS TESTS	PRICE excl. GST	PRICE incl. GST
SS-SING-090	Acid Neutralising Capacity (ANC-BT)  This method is used to measure Acid Neutralising Capacity (ANC-BT) where pH-KCl > 6.5.	\$31.50	\$34.65
SS-SING-201	Acid Neutralising Capacity by Total Inorganic Carbon (C-IN)  This method is used to measure Acid Neutralising Capacity (ANC) where the pH-KCl > 6.5.	\$47.25	\$51.98
SS-SING-251	Aluminium - 1 M KCl Includes exchangeable aluminium by 1 M KCl.	\$21.00	\$23.10
SS-SING-149	Arsenic - Total Includes sample preparation/acid digest and analysis by ICPMS.	\$31.50	\$34.65
SS-SING-063	Asbestos Identification (Not Quantifiable) Identification in building material, soil, compost and dust.	\$73.50	\$80.85
SS-SING-161	Asbestos Identification and Quantification in Soil Identification and quantification in soil (using AS4964-2004 or WA/NEPM) (% ACM, % Friable).	\$84.00	\$92.40
SS-SING-021	Ash Content by Combustion Includes moisture content and ash content by combustion.	\$31.50	\$34.65
SS-SING-155	Ash Content by Combustion - Routine and Acid Insoluble Includes standard Ash content by combustion then treatment of filter with hydrochloric acid and re-ashing.	\$36.75	\$40.43
SS-SING-134	Boron - CaCl <sub>2</sub> Available	\$26.25	\$28.88
SS-SING-160	Brix Reading	\$10.50	\$11.55
SS-SING-038	Chloride - Soluble	\$31.50	\$34.65
SS-SING-153	Cyanide - Free	\$47.25	\$51.98
SS-SING-148	Cyanide - Total	\$63.00	\$69.30
SS-SING-225	<b>Dry Matter Content (%) at 105°C</b> Proportion of moisture and oven-dry solid in 'as received' sample (105°C).	\$10.50	\$11.55
SS-SING-064	Electrical Conductivity (1:5 water)	\$15.75	\$17.33
SS-SING-273	Extractable Sulfate Sulfur (10% HCl extractable) Includes extraction of soil using 10% HCl following method BS1377 and analysis by ICPOES.	\$25.00	\$27.50
SS-SING-067	Fluoride - Extractable	\$63.00	\$69.30
SS-SING-147	Fluoride - Total by fusion	\$73.50	\$80.85
SS-SING-022	Iodine - NaOH Extraction	\$105.00	\$115.50
SS-SING-150	Lead - Total Includes sample preparation, acid digest and analysis by ICPMS.	\$31.50	\$34.65
SS-SING-001	Moisture Content - As Received (%) at 105°C  Oven-dry moisture content as a per cent of the 'as-received' sample (105°C).	\$10.50	\$11.55
SS-SING-233	Moisture Content - As Received (%) at 40°C Moisture content as a per cent of air-dry equivalent soil (40°C).	\$10.50	\$11.55
SS-SING-068	Neutralising Value Includes Acid Neutralising Capacity - Carbonate.	\$31.50	\$34.65
SS-SING-138	Organic Matter Includes Total Organic Carbon and organic matter by calculation.	\$31.50	\$34.65
SS-SING-070	Paint Analysis for Lead	\$31.50	\$34.65
SS-SING-069	Paramagnetism	\$10.50	\$11.55
SS-SING-216	PFAS in solid – standard level 28 suite with detection 0.01 mg/kg Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil.	\$178.50	\$196.35
SS-SING-279	PFAS-28 Standard Level - TOF Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil plus any Total Organofluorine compounds.	\$220.00	\$242.00
SS-SING-278	PFAS-28 Standard Level - TOPA Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil plus PFAS Precursor compounds.	\$345.00	\$379.50
SS-SING-253	PFAS in solid – LOW level 28 suite with detection 0.0008–0.0016 mg/kg Includes the analysis of per- and poly-fluoroalkyl substances (PFAS) in soil.	\$199.50	\$219.45
SS-SING-084	Phosphorus Buffer Index (PBI) - Colwell corrected Includes Phosphorus Buffer Index (PBI) and is corrected using Colwell Phosphorus.	\$42.00	\$46.20
SS-SING-083	Potassium - BSES Nitric	\$31.50	\$34.65
SS-SING-076	Potassium - Colwell	\$26.25	\$28.88

ITEM CODE	INDIVIDUAL COURCETCES (Court )	PRICE excl.	PRICE incl.
ITEM CODE	INDIVIDUAL SOLIDS TESTS (Cont.)	GST	GST
SS-SING-136	Protein (Crude) Includes Total Nitrogen (TN) and Crude Protein (Calculation).	\$31.50	\$34.65
SS-SING-131	Redox Potential Tested on 'as supplied' sample.	\$31.50	\$34.65
SS-SING-028	Scanning Electron Microscopy (SEM) - Sample Feasibility Assessment Includes sample preparation and instrument setup. A quote for analysis is provided following Sample Feasibility Assessment using SS-SING-199 hourly rate.	\$378.00	\$415.80
SS-PACK-047	Salts – Water Soluble Includes water soluble Sodium, Calcium, Magnesium, Potassium.	\$36.75	\$40.43
SS-SING-199	Scanning Electron Microscopy (SEM) - Imaging and X-ray analysis Imaging, X-ray analysis or both (hourly rate). Price is sample dependent; a quote can be provided following SEM Sample Feasibility Assessment (SS-SING-028).	\$294.00	\$323.40
SS-SING-080	Silicon - BSES Acid Soluble	\$21.00	\$23.10
SS-SING-078	Silicon - BSES Available	\$21.00	\$23.10
SS-SING-135	Silicon - CaCl <sub>2</sub> Available	\$26.25	\$28.88
SS-SING-081	Sulfur - KCI-40	\$21.00	\$23.10
SS-SING-082	Sulfur - MCP	\$21.00	\$23.10
SS-SING-124	Sulfur - Morgan	\$21.00	\$23.10
SS-SING-144	Total Sulfur (TS) by LECO	\$21.00	\$23.10
SS-SING-010	X-ray Diffraction (XRD) Identification - excluding clay minerals Includes identification of minerals and mineral assemblages. Price dependent upon application and sample amounts. Price does NOT include clay identification.	\$157.50	\$173.25
SS-SING-200	X-ray Diffraction (XRD) Identification of Clay Minerals Includes preparation and identification of clay minerals. All other minerals are removed during sample preparation. Price dependent upon application and sample amounts.	\$577.50	\$635.25
SS-SING-031	X-ray Fluorescence (XRF) Includes total elemental concentration of elements with atomic weight greater than Oxygen. Price dependent upon application and sample amounts. Price includes Total Carbon (TC) and Total Nitrogen (TN).	\$189.00	\$207.90
SS-SING-079	Zinc - BSES HCI	\$21.00	\$23.10

All suites have preparation and digest/extract charges included.

	All suites have preparation and algest	,	J
ITEM CODE	BIOSOLID SUITES	PRICE	PRICE
TILIVI CODE		excl. GST	incl. GST
BS-PACK-001	Contaminated Grade Assessment	\$241.50	\$265.65
	Includes Total Dry Solids Concentration, Metals Analysis Arsenic, Cadmium, Chromium, Copper, Lead, Mercury,		
	Nickel, Selenium, Zinc; Low Level (Organo-chlorines Pesticides (OC), Polychlorinated biphenyls (PCB)).		
BS-PACK-004	Enteric Viruses Determination	\$441.00	\$485.10
	Includes Reovirus, Enterovirus, Adenovirus (viruses per 10 g).		
BS-PACK-006	Enteric Viruses Determination plus Helminth Ova	\$525.00	\$577.50
	Includes Reovirus, Enterovirus, Adenovirus (viruses per 10 g) plus Helminth Ova.		
BS-PACK-002	Nutrient Determination	\$94.50	\$103.95
	Includes Moisture Content; Total Nitrogen (TN), Total Phosphorus, Total Kjeldahl Nitrogen (TKN) (by calculation);		
	and available Nutrients (1:10 KCL extractable Nitrate, Ammonium, Phosphate).		
BS-PACK-005	SOUR Test	\$105.00	\$115.50
	Includes Moisture, Volatile Solids Concentration, Specific Oxygen Uptake Rate (SOUR) with an incubation of 20°C.		
BS-PACK-003	Stabilisation Confirmation	\$210.00	\$231.00
	Includes Moisture, Microbial Assessment (E.Coli, Faecal Coliforms, and Salmonella sp.), Volatile Solids Concentration,		
	Specific Oxygen Uptake Rate (SOUR).		

All suites have preparation and digest/extract charges included.

ITEM CODE	CARBON SUITES	PRICE	PRICE
ITEIVI CODE	CARDON SUITES	excl. GST	incl. GST
SS-PACK-020	Carbon Stability	\$52.50	\$57.75
	Includes Total Carbon (TC), Labile Carbon.		
SS-PACK-174	Inorganic (Carbonate) Carbon by LECO	\$57.75	\$63.53
	Includes Total Carbon (TC), Total Organic Carbon (TOC).		
SS-PACK-011	Total Carbon and Total Nitrogen - LECO	\$31.50	\$34.65
	Includes Total Carbon (TC) and Total Nitrogen (TN), TC/TN Ratio.		
SS-PACK-088	Total Carbon and Total Sulfur - LECO	\$36.75	\$40.43
	Includes Total Carbon (TC) and Total Sulfur (TS) (LECO SC832).		
SS-PACK-012	Total Carbon, Total Nitrogen and Total Sulfur - LECO	\$47.25	\$51.98
	Includes Total Carbon (TC) and Total Nitrogen (TN), Total Sulfur (TS), TC/TN Ratio.		

Single tests may require sample preparation.

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ITEM CODE	INDIVIDUAL CARBON TESTS	PRICE	PRICE
TILIVI CODE	INDIVIDUAL CARBON 12313	excl. GST	incl. GST
SS-SING-018	Carbon - Labile	\$21.00	\$23.10
SS-SING-062	Carbon - Organic by Walkley Black	\$42.00	\$46.20
SS-SING-061	Carbon - Total Organic by LECO	\$31.50	\$34.65
SS-SING-059	Inorganic (Carbonate) Carbon by LECO Includes Total Carbon (TC), Total Organic Carbon (TOC).	\$47.25	\$51.98
	includes rotal carbon (ref, rotal organic carbon (roc).		
SS-SING-060	Total Carbon by LECO	\$21.00	\$23.10
SS-SING-138	Organic Matter	\$31.50	\$34.65
	Includes Total Organic Carbon and organic matter by calculation.		

### **EXCHANGEABLE CATIONS TESTING**

	All suites have preparation and digest	/extract char	ges included.
ITEM CODE	EXCHANGEABLE CATIONS SUITES	PRICE excl. GST	PRICE incl. GST
SS-PACK-073	Incubation - Slab  This method is used to assess the effectiveness of a soil"s Acid Neutralising Capacity (ANC). The incubation is maintained and pH-INC taken fortnightly until the soil pH changes by at least 0.5 pH unit to below 4, or for at least 8 weeks until pH-INC is stable.	\$189.00	\$207.90
SS-PACK-028	Exchangeable Acidity - 15G1 - 1 M KCl Includes exchangeable acidity (Hydrogen + Aluminium) by 1 M KCl.	\$31.50	\$34.65
SS-PACK-074	Exchangeable Cations - 15A1 - 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> Cl at pH 7.0. No pre-treatment for soluble salts.	\$42.00	\$46.20
SS-PACK-075	Exchangeable Cations - 15A2 - 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> Cl at pH 7.0. Pretreatment for soluble salts when EC is > 0.3 dS/m.	\$52.50	\$57.75
SS-PACK-029	Exchangeable Cations - 15A3 - 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> Cl at pH 7.0. When EC is > 0.3 dS/m soluble Chloride is analysed to adjust the exchangeable sodium.	\$57.75	\$63.53
SS-PACK-076	Exchangeable Cations - 15B1 - 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> Cl at pH 7.0. No pre-treatment for soluble salts.	\$42.00	\$46.20
SS-PACK-077	Exchangeable Cations - 15B2 - 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> Cl at pH 7.0. Pretreatment for soluble salts when EC is > 0.3 dS/m.	\$52.50	\$57.75
SS-PACK-078	Exchangeable Cations - 15B3 - 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> Cl at pH 7.0. When EC is > 0.3 dS/m soluble Chloride is analysed to adjust the exchangeable sodium.	\$57.75	\$63.53
SS-PACK-027	Exchangeable Cations - 15C1 - Alcoholic 1 M NH <sub>4</sub> Cl Includes exchangeable Sodium, Potassium, Calcium, Magnesium by Alcoholic 1 M NH <sub>4</sub> Cl at pH 8.5. Ideal for soils where pH > 7.3.	\$73.50	\$80.85
SS-PACK-026	Exchangeable Cations - 15D1 - 1 M NH <sub>4</sub> OAc Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> OAc at pH 7.0. Pretreatment for soluble salts when EC is > 0.3 dS/m.	\$52.50	\$57.75
SS-PACK-041	Exchangeable Cations - 15D3 - 1 M NH <sub>4</sub> OAc Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> OAc at pH 7.0. No pre-treatment for soluble salts.	\$42.00	\$46.20
SS-PACK-001	Exchangeable Cations - 15D3 - 1 M NH <sub>4</sub> OAc plus Acidity (15G1) Includes exchangeable Sodium, Potassium, Calcium, Magnesium by 1 M NH <sub>4</sub> OAc at pH 7.0 and exchangeable acidity (Hydrogen + Aluminium) by 1 M KCl.	\$52.50	\$57.75

### **METALS TESTING**

All suites have preparation and digest/extract charges included.

	All suites have preparation and digest	extract char	ges included.
ITEM CODE	METALS SUITES	PRICE excl. GST	PRICE incl. GST
SS-PACK-004	Basic Metals Scan - Total Acid Extractable (ICPMS) Includes Aluminium, Arsenic, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc.	\$73.50	\$80.85
SS-PACK-043	Extra Metals Scan - Total Acid Extractable (ICPMS) Includes Antimony, Barium, Bismuth, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium.	\$73.50	\$80.85
SS-PACK-050	Hair Tissue Mineral Analysis (HTMA) - Human and Animal Includes Antimony, Aluminium, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium and Zinc. Data only (no interpretation), Nitric Acid digest, minimum of 0.5 g of hair required which is equivalent to one heaped tablespoon. Collect from nape as close as possible to scalp as this reflects new growth. Provide sample double bagged to avoid contamination when opened at the laboratory.	\$84.00	\$92.40
SS-PACK-044	Salts Scan - Total Acid Extractable (ICPMS) Includes Calcium, Magnesium, Potassium, Sodium and Sulfur.	\$47.25	\$51.98
SS-PACK-046	Special - Metals and Salts Combo - Total Acid Extractable (ICPMS) Includes Basic (Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver and Zinc); Extra (Antimony, Barium, Beryllium, Bismuth, Boron, Cobalt, Lithium, Molybdenum, Silicon, Strontium, Thallium, Thorium, Uranium and Vanadium) and Salts (Calcium, Magnesium, Potassium, Sodium and Sulfur).	\$126.00	\$138.60
SS-PACK-069	Speciated Arsenic Includes toxic arsenic species AsV and AsIII determination using HPLC-ICPMS (Total Arsenic analysis also included).	\$315.00	\$346.50
SS-PACK-070	Speciated Chromium Includes toxic hexavalent chromium species CrVI and CrIII determination using HPLC-ICPMS (Total Chromium analysis also included).	\$315.00	\$346.50
SS-PACK-068	Speciated Mercury Includes toxic mercury species Methyl Mercury and Hg2+ determination using HPLC-ICPMS. (Total Mercury analysis also included).	\$315.00	\$346.50
SS-PACK-031	Specific - Rare Earth - Total Acid Extractable (ICPMS) Includes Cerium, Dysprosium, Erbium, Europium, Gadolinium, Holmium, Lanthanum, Lutetium, Neodymium, Praseodymium, Samarium, Scandium, Terbium, Thorium, Thulium, Uranium, Ytterbium and Yttrium.	\$99.75	\$109.73
SS-PACK-161	Specific - ASLP Extractable (ICPMS) Includes Sodium, Potassium, Calcium, Magnesium, Sulfur, Chloride, Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury.	\$94.50	\$103.95
SS-PACK-032	Specific - TCLP Extractable (ICPMS) Includes Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury.	\$94.50	\$103.95
SS-PACK-162	Specific - SPLP Extractable (ICPMS) Includes Sodium, Potassium, Calcium, Magnesium, Sulfur, Chloride, Copper, Lead, Cadmium, Zinc, Arsenic, Selenium, Iron, Manganese, Silver, Chromium, Nickel, Aluminium, Mercury.	\$94.50	\$103.95
SS-PACK-053	Concrete Quality Analysis Includes concrete crushing, Chloride and Sulfate.	\$84.00	\$92.40
SS-PACK-045	Total Acid Extractable - Heavy Metals (ICPMS) Includes Lead, Cadmium, Arsenic, Nickel, Aluminium, Mercury, Chromium, Silver, Selenium.	\$52.50	\$57.75

Single tests may require sample preparation.

<u></u>	Single tests may re	quire sumpre	preparation
ITEM CODE	INDIVIDUAL METALS TESTS	PRICE	PRICE
TILWI CODE	INDIVIDUAL METALS TESTS	excl. GST	incl. GST
SS-SING-132	General Metals - ICPMS	\$10.50	\$11.55
	Price per element		
	Aluminium, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper,		
	Iron, Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium,		
	Silicon, Silver, Sodium, Strontium, Sulfur, Thallium, Thorium, Uranium, Vanadium or Zinc.		
SS-SING-133	Non-Standard Metals - ICPMS	\$15.75	\$17.33
	Price per element		
	Caesium, Cerium, Dysprosium, Erbium, Europium, Gadolinium, Germanium, Gold, Holmium, Lanthanum, Lutetium,		
	Neodymium, Palladium, Platinum, Praseodymium, Rubidium, Samarium, Scandium, Tantalum, Terbium, Thulium,		
	Tin, Titanium, Tungsten, Ytterbium, Yttrium or Zirconium.		
SS-SING-024	Specific Metals - TCLP Extractable ICPMS	\$15.75	\$17.33
	Price per element		
	Aluminium, Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Silver or Zinc.		

### **MICROBIAL AND NITROGEN TESTING**

All suites have preparation and digest/extract charges included.

	All suites have preparation and diges	ty extract char	ges included.
ITEM CODE	MICROBIAL SUITES	PRICE	PRICE
TIEW CODE	WICKODIAL 3011L3	excl. GST	incl. GST
SS-PACK-185	Cryptosporidium and Giardia Note: 500 g of sample is required to complete testing.	\$892.50	\$981.75
SS-PACK-192	Food Microbiology (i.e. Macadamia kernel) Includes E.Coli, Total Coliforms, Salmonella and Total Plate Count.	\$110.25	\$121.28
SS-PACK-176	General Plant Pathogen Scan  Note: 500 g of sample is required to complete testing.	\$367.50	\$404.25
SS-PACK-184	General Plant Pathogen Scan Plus General plant pathogen scan including Phytophthora, Pythium, Rhizoctonia and Fusarium. Note: 500 g of sample is required to complete testing.	\$525.00	\$577.50
SS-PACK-141	Microbial Biomass Assessment - Compost Includes biomasses of 12 microbial groups relevant for compost quality, health and function.	\$313.95	\$345.35
SS-PACK-166	Microbial Biomass Assessment - Soil with high Organics Includes biomasses of 12 microbial groups relevant for compost quality, health and function.	\$313.95	\$345.35
SS-PACK-140	Microbial Biomass Assessment - Soil Includes biomasses of 12 microbial groups relevant for soil quality, health and function.	\$271.95	\$299.15
SS-PACK-167	MIC-01: Basic Analysis of Microbial Activity in Soil (Plate Count)  Preferably examined in relation to texture, moisture content, pH, C:N ratio, and organic matter content. Includes  Total aerobic bacteria, Total fungi (moulds), Gram negative bacteria, Filamentous actinomycetes, Yeasts.	\$94.50	\$103.95
SS-PACK-168	MIC-02: Extended Microbial Activity in Soil (Plate Count) Preferably examined in relation to texture, moisture content, pH, C:N ratio, and organic matter content. Includes Total aerobic bacteria, Filamentous actinomycetes, Actinobacteria, Gram negative bacteria, Filamentous fungi (Moulds), Yeasts, Lactic acid bacteria, Total Anaerobes (includes facultative anaerobes), Sulfite Reducing Anaerobes.	\$199.50	\$219.45
SS-PACK-059	Pathogens Includes Moisture, Ecoli, Faecal Coliforms, Salmonella.	\$147.00	\$161.70
SS-PACK-175	Phytophthora and Pythium  Note: 500 g of sample is required to complete testing.	\$231.00	\$254.10

Single tests may require sample preparation.

	Single tests may re	quire sumple	preparation.
ITEM CODE	INDIVIDUAL MICROBIAL TESTS	PRICE	PRICE
TIENI CODE	INDIVIDUAL MICRODIAL 12313	excl. GST	incl. GST
SS-SING-047	Aerobic Plate Count	\$42.00	\$46.20
SS-SING-265	Bacillus cereus	\$126.00	\$138.60
SS-SING-044	E.Coli	\$42.00	\$46.20
SS-SING-266	Clostridium perfringens	\$78.75	\$86.63
SS-SING-267	Campylobacter	\$157.50	\$173.25
SS-SING-043	Faecal Coliforms	\$42.00	\$46.20
SS-SING-203	Helminth Ova	\$273.00	\$300.30
SS-SING-046	Listeria	\$63.00	\$69.30
SS-SING-269	Nematodes	\$105.00	\$115.50
SS-SING-045	Salmonella	\$63.00	\$69.30
SS-SING-195	SOLVITA - Compost Emissions Maturity Test	\$63.00	\$69.30
	Includes measurement of carbon dioxide and ammonia gas released from compost due to biological activity.		
SS-SING-209	SOLVITA - Soil CO <sub>2</sub> Burst	\$63.00	\$69.30
	Includes measurement of carbon dioxide released from soil due to biological activity.		

All suites have preparation and digest/extract charges included.

All suites have preparation and digesty extract charges include			ges included.
ITEM CODE	NITROGEN SUITES	PRICE	PRICE
		excl. GST	incl. GST
SS-PACK-019	Nutrients - KCl Extractable	\$52.50	\$57.75
	Includes Nitrate, Ammonium, Phosphate.		
SS-PACK-033	Nutrients - Water Extractable	\$52.50	\$57.75
	Includes Nitrate, Phosphate, Ammonium.		

Single tests may require sample preparation.

ITEM CODE	ITEM CODE INDIVIDUAL NITROGEN TESTS	PRICE	PRICE
TIENI CODE	INDIVIDUAL NITROGEN 1E313	excl. GST	incl. GST
SS-SING-048	Ammonium	\$31.50	\$34.65
SS-SING-049	Nitrate	\$31.50	\$34.65
SS-SING-050	Total Nitrogen by LECO	\$21.00	\$23.10

#### **PHOSPHORUS TESTING**

All suites have preparation and digest/extract charges included.

ITEM CODE	PHOSPHORUS SUITES	PRICE	PRICE
TIEWI CODE	PHOSPHOROS SUITES	excl. GST	incl. GST
SS-PACK-019	Nutrients - KCl Extractable	\$52.50	\$57.75
	Includes Nitrate, Ammonium, Phosphate.		
SS-PACK-033	Nutrients - Water Extractable	\$52.50	\$57.75
	Includes Nitrate, Phosphate, Ammonium.		

Single tests may require sample preparation.

	Single tests may	require sample	preparation.
ITEM CODE	INDIVIDUAL PHOSPHORUS TESTS	PRICE	PRICE
		excl. GST	incl. GST
SS-SING-191	MEDLI Adsorption Isotherm Parameters	\$105.00	\$115.50
	Modelling (6 concentrations of Phosphorus), Colwell Phosphorus.		
SS-SING-042	Phosphorus - Available by 1 M KCl extract	\$21.00	\$23.10
SS-SING-041	Phosphorus - Available by Morgan extract	\$21.00	\$23.10
SS-SING-035	Phosphorus - Bray 1	\$21.00	\$23.10
	Includes plant available Phosphorous for acid soils.		
SS-SING-036	Phosphorus - Bray 2	\$21.00	\$23.10
	Includes plant available and acid soluble forms of Phosphorous.		
SS-SING-040	Phosphorus - BSES Acid Soluble	\$21.00	\$23.10
SS-SING-248	Phosphorus - Citrate Soluble	\$42.00	\$46.20
	Includes 2% Citrate Soluble Phosphorus.	7 .2.00	*
SS-SING-033	Phosphorus - Colwell	\$21.00	\$23.10
	Includes Phosphorus for alkaline soils.		
SS-SING-264	Phosphorus – Formic Acid Soluble	\$63.00	\$69.30
	Includes Formic Acid Soluble Phosphorus.		
SS-SING-034	Phosphorus - Olsen	\$21.00	\$23.10
	Includes Olsen Phsophorous - a measure of the intensity of Phosphorus.		
SS-SING-032	Phosphorus - Total Acid Extractable (includes preparation)	\$42.00	\$46.20
SS-SING-037	Phosphorus Buffer Index (PBI)	\$21.00	\$23.10
SS-SING-084	Phosphorus Buffer Index (PBI) - Colwell corrected	\$42.00	\$46.20
	Includes Phosphorus Buffer Index (PBI) and is corrected using Colwell Phosphorus.		
SS-SING-087	Phosphorus Sorption (as mg P/kg - basic as per PBI)	\$26.25	\$28.88
SS-SING-039	Phosphorus Sorption Capacity	\$84.00	\$92.40
	Includes 1 day preliminary and 7 day sorption capacity trial (Ryden and Pratt, 1980). In situ Phosphorous and		
	calculations.		
SS-SING-249	Phosphorus - Water Soluble	\$21.00	\$23.10
	Includes Water Soluble Phosphorus.		

### STABLE ISOTOPES TESTING

Single tests may require sample preparation.

ITEM CODE	INDIVIDUAL STABLE ISOTOPE TESTS	PRICE	PRICE
TIEWI CODE	INDIVIDUAL STABLE ISOTOPE TESTS	excl. GST	incl. GST
SS-SING-118	Biomarker and Specific Compounds - 13C and/or 15N Isotopes	\$0.00	\$0.00
	Price dependent upon application and sample amounts.		
SS-SING-116	Carbonate Analysis - 'as supplied' - 13C & 18O Isotopes	\$63.00	\$69.30
	Without pre-concentration.		
SS-SING-257	Carbonate Analysis - 13C and 18O Isotopes	\$147.00	\$161.70
	No pre-concentration, sample preparation included.		

ITEM CODE	INDIVIDUAL STABLE ISOTOPE TESTS (Cont.)	PRICE	PRICE
SS-SING-114	Dissolved Gas Analysis Includes $N_2$ /Ar non-isotope ratio measurement.	excl. GST \$42.00	\$46.20
SS-SING-109	Dissolved inorganic carbon in water - 13C isotopes	\$65.00	\$71.50
SS-SING-112	Dissolved Nitrogen Includes Dissolved N <sub>2</sub> - ratio masses 29/28 and 30/28.	\$78.75	\$86.63
SS-SING-113	Dissolved Nitrous Oxide	\$131.25	\$144.38
SS-SING-110	Dissolved organic carbon in water - 13C isotopes	\$85.00	\$93.50
SS-SING-260	Hydrogen and Oxygen in Bulk Solids - 2H and 18O Isotopes Includes % H and % O - consult for sample suitability.	\$126.00	\$138.60
SS-SING-261	Hydrogen and Oxygen Content in Bulk Solids - No Isotopes	\$63.00	\$69.30
SS-SING-258	Hydrogen in Bulk Solids - 2H Isotopes Includes % H - consult for sample suitability.	\$63.00	\$69.30
SS-SING-242	Organic Carbon in Bulk Solids - 13C Isotopes Iincludes acid treatment to remove inorganic carbon. % C also provided.	\$73.50	\$80.85
SS-SING-117	Nitrogen Gas Without pre-concentration.	\$47.25	\$51.98
SS-SING-259	Oxygen in Bulk Solids - 180 Isotopes Includes % O - consult for sample suitability.	\$63.00	\$69.30
SS-SING-108	Total Carbon and Total Nitrogen in Filters - 13C and 15N Isotopes Filters (25 mm or smaller GFF quartz preferred) (charge per analyte, sample preparation included).	\$94.50	\$103.95
SS-SING-106	Total Carbon in filters - 13C isotopes	\$95.00	\$104.50
SS-SING-105	Total Carbon and Total Nitrogen in Bulk Solids - 13C and 15N Isotopes Also includes % TC and % TN.	\$73.50	\$80.85
SS-SING-103	Total Carbon in Bulk Solids - 13C Isotopes Also includes % TC.	\$63.00	\$69.30
SS-SING-104	Total Nitrogen in Bulk Solids - 15N Isotopes Also includes % TN.	\$63.00	\$69.30
SS-SING-107	Total Nitrogen in filters - 15N isotopes	\$95.00	\$104.50

### NATA ACCREDITED TESTS (Lab Acc. No. 14960)



ID	Tests	Reference
S1	Soil pH and Electrical Conductivity	In-house (re R&L 3A1, 4A1)
S4a	Total Carbon, Nitrogen, Sulfur by Combustion in Soil and Plant	In-house (re R&L 6B2b, 7AS)
S8	DTPA – Cu, Zn, Mn, Fe	In-house (re R&L 12A1)
S9c	Exchangeable bases and CEC-1M Ammonium Acetate	In-house (re R&L 15D3)
S14	Acid Neutralising Capacity	In-house (re National Guidance NLM-5.2)
S15b	Total Organic Carbon in Soil by Combustion	In-house (re R&L 6B3)
S16b	Titratable Actual Acidity	In-house (re National Guidance NLM-3.2)
S20	Chromium Reducible Sulfur	In-house (re National Guidance NLM-2.1)
S21	Acid Sulfate Soil pH-F and pH-FOX Testing	In-house (re National Guidance)
S38	Lead in Paint	In-house
W1	Turbidity	In-house
W4	Total Nitrogen/Total Phosphorous (Lachat)	In-house (re APHA 4500 P-H N-C)
W6	Nitrite in Waters (Lachat)	APHA 4500 NO3-I
W7	Nitrate in Waters (Lachat)	APHA 4500 NO3-F
W8	Ortho-Phosphate in Waters (Lachat)	APHA 4500 P-G
W9	Ammonia in Waters (Lachat)	APHA 4500 NH3-H
W25	Total Suspended Solids	APHA 2540-D
W26	BOD in Waters and Wastewaters	APHA 5210-B
W28a	Total Oils and Grease Automated	APHA 5520-D
W31	Water pH and Conductivity	APHA 4500-H & 2510-B
W32	ICPMS Metals Analysis in Soils and Waters (Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Hg, Mo, Ni, P, K, Se, Ag, Na, Sr, S, Tl, Th, Sn, U, V, Zn)	In-house (re APHA 3125)
W32a	Trace Metals in Saline Water (Al, As, Ba, Be, Bi, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, U, V, Zn)	In-house (re APHA 3125)
W33	Soluble Chlorine as Chloride in Waters	In-house (by ICPMS)

Microbiological Tests	Reference
W30 Faecal Coliform Bacteria in Water and Wastewater	In-house
W29 Total Coliform Bacteria/E.Coli	In-house
W37 Entrococci	In-house

## ASPAC TESTS (for Plant and Soil materials)



Soil tests	Reference
рН	R&L 4A1, 4B1, 4B2
Electrical Conductivity	R&L 3A1
Bray 1, Colwell, Olsen Phosphorus	R&L 9E2, 9B2, 9C2
Total Phosphorus	R&L 17C1
Exchangeable Cations – Ca, Mg, K, Na	R&L 15D3
Exchangeable Cations – H, Al	R&L 15G1
DTPA - Fe, Cu, Zn, Mn	R&L 12A1
Total Carbon & Nitrogen	R&L 6B2b, 7A5
Nitrate & Ammonium Nitrogen	R&L 7C2
Soluble Chloride	R&L 5A2
Extractable Boron	R&L 12C2
Extractable Sulfur	R&L 10D1
Phosphorus Buffer Index	R&L 9I2b
Mehlich – Ca, Mg, K, Na, Fe, Cu, Zn, Mn, P, S, Al, B	R&L 18F1

Acid Sulfate Soil Tests	Reference
Chromium Reducible Sulfur	NLM-2.1
Potassium Chloride pH	NLM-3.1
Titratable Actual Acidity	NLM-3.2
Potassium Chloride Extractable Sulfur	NLM-4.1
Peroxide Sulfur	NLM-2.2
4 M Hydrochloric Acid Extractable Sulfur	NLM-4.1
Acid Neutralising Capacity (BT)	NLM-5.1

Plant Tissue Tests	Reference
Total Nutrients (Ca, Mg, P, K, Na, Si, B, S, Cd, Co, Fe, Pb, Mn, Mo, Se, Zn)	AE-24
LECO - C, N, S	CA-37
Soluble Chloride	BB-32

Notes: R&L methods from Rayment & Lyons (2011). NLM methods from National Acid Sulfate Soils Guidance (2018). APHA methods from American Public Health Association (2017). See EAL website under 'About' for current scope of accreditation for NATA and ASPAC.