GEOTECH TESTING PTY LTD®
ABN 71 076 676 321

Job No: 8599/27
Our Ref: 8599/27-AA
20 September 2019

Daracon Contractors Pty Ltd
184 Adderley Street
AUBURN NSW 2144
Email: SimpsonW@daracon.com.au

Attention: Mr S Wong / Mr J Letby

Dear Sirs

re: **Newpark – Precinct 6, Marsden Park**
Elara Blvd, Marsden Park
Post Earthworks Salinity Assessment – Exposure Classification

At your request, Geotech Testing Pty Ltd conducted a salinity assessment at the above site after completion of earthworks. This report provides exposure classification of a number of residential lots (newly developed) at the above-mentioned residential subdivision. The work was commissioned by Mr J Letby of Daracon Contractors Pty Ltd and was conducted as per our fee proposal (Our Ref: ER.sf/Q1379) dated 31 October 2018.

Field Work
The field work for this investigation was carried out between 4th and 9th of August 2019 under the full time supervision of a Geotechnical Engineer from this company and consisted of the following:

- Carry out a walk over survey to assess existing geological and geotechnical conditions within and in the vicinity of the site.
- Excavate 125 test pits to depths up to 1.5m using a small 5 tonne excavator. Test pits were excavated along the boundary lines between lots and their locations are shown on the attached Drawing No 8599/28-AA1.
- Recovery of the representative soil samples from test pits for laboratory testing.

The field work was supervised by a Geotechnical Engineer from this company, who was responsible for nominating test pit locations, recovering samples and preparation of field logs.

Site Conditions
The site is connected to Elara Blvd to the north and is bounded by newly developed subdivision land on all sides. The site was originally farmland with scattered trees, which have been removed. Topography of the site generally slopes to south-west. At the time of investigation, earthworks for the lots had been completed, and topsoil spreading on some of the lots was underway. The site was devoid of any vegetation.

Sub-surface Conditions

Sub-surface conditions encountered at the site are detailed in the attached Table A and summarised below in Table 1.

Table 1: Sub-surface Conditions

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)	Bedrock (m)
TP1	1.5	0.0-0.2	0.2-0.4	0.4-1.5	NE
TP2	1.5	0.0-0.2	0.2-0.3	0.3-1.5	NE
TP3	1.5	0.0-0.2	0.2-0.4	0.4-1.5	NE
TP4	1.5	0.0-0.2	NE	0.2-1.5	NE
TP5	1.5	0.0-0.2	0.2-1.5	NE	NE
TP6	1.5	0.0-0.2	0.2-1.5	NE	NE
TP7	1.5	0.0-0.2	NE	0.2-1.5	NE
TP8	1.5	0.0-0.2	0.2-1.5	NE	NE
TP9	1.5	0.0-0.2	0.2-0.3	0.3-1.5	NE
TP10	1.5	0.2-0.2	0.2-0.3	0.3-1.5	NE
TP11	1.5	0.0-0.2	0.2-0.4	0.4-1.5	NE
TP12	1.5	0.0-0.2	0.2-0.9	0.9-1.5	NE
TP13	1.5	0.0-0.2	NE	0.2-1.5	NE
TP14	1.5	0.0-0.2	NE	0.2-1.5	NE
TP15	1.5	0.0-0.2	NE	0.2-1.5	NE
TP16	1.5	0.0-0.2	0.2-0.4	0.4-1.5	NE
TP17	1.5	0.0-0.2	0.2-0.7	0.7-1.5	NE
TP18	1.5	0.0-0.2	0.2-0.4	0.4-1.5	NE
TP19	1.5	NE	NE	0.0-1.5	NE
TP20	1.5	0.0-0.2	NE	0.2-1.5	NE
TP21	1.5	NE	NE	0.0-1.5	NE
TP22	1.5	0.0-0.2	NE	0.2-1.5	NE
TP23	1.5	NE	0.0-0.5	0.5-1.5	NE
TP24	1.5	0.0-0.2	0.2-0.6	0.6-1.5	NE
TP25	1.5	0.0-0.2	0.2-0.5	0.5-1.5	NE
TP26	1.5	0.0-0.2	NE	0.2-1.5	NE
TP27	1.5	0.0-0.2	0.2-0.3	0.3-1.5	NE
TP28	1.5	0.0-0.2	NE	0.2-1.5	NE
TP29	1.5	0.0-0.2	0.2-0.3	0.3-1.5	NE
TP30	1.5	0.0-0.2	NE	0.2-1.5	NE
TP31	1.5	0.0-0.2	0.2-0.4	0.4-1.5	NE
TP32	1.5	0.0-0.2	NE	0.2-1.5	NE
TP33	1.5	0.0-0.2	NE	0.2-1.5	NE
TP34	1.5	0.0-0.2	0.2-0.5	0.5-1.5	NE
TP35	1.5	0.0-0.2	0.2-1.2	1.2-1.5	NE

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)	Bedrock (m)
TP36	1.5	0.0-0.2	0.2-0.7	0.7-1.5	NE
TP37	1.5	0.0-0.2	0.2-1.3	1.3-1.5	NE
TP38	1.5	0.0-0.1	0.1-1.2	1.2-1.5	NE
TP39	1.5	NE	0.0-0.7	0.7-1.5	NE
TP40	1.5	0.0-0.2	0.2-0.9	0.9-1.5	NE
TP41	1.5	NE	0.0-0.2	0.2-1.5	NE
TP42	1.5	NE	0.0-0.9	0.9-1.5	NE
TP43	1.5	NE	0.0-1.1	1.1-1.5	NE
TP44	1.5	NE	0.0-0.9	0.9-1.5	NE
TP45	1.5	NE	0.0-0.8	0.8-1.5	NE
TP46	1.5	NE	0.0-1.2	1.2-1.5	NE
TP47	1.5	NE	0.0-0.9	0.9-1.5	NE
TP48	1.5	NE	0.0-0.8	0.8-1.5	NE
TP49	1.5	NE	0.0-0.8	0.8-1.5	NE
TP50	1.5	NE	0.0-0.9	0.9-1.5	NE
TP51	1.5	NE	0.0-0.6	0.6-1.5	NE
TP52	1.5	NE	0.0-0.8	0.8-1.5	NE
TP53	1.5	NE	0.0-0.8	0.8-1.5	NE
TP54	1.5	NE	0.0-0.1	0.1-1.5	NE
TP55	1.5	NE	0.0-0.1	0.1-1.5	NE
TP56	1.5	NE	0.0-0.1	0.1-1.5	NE
TP57	1.5	NE	0.0-0.2	0.2-1.5	NE
TP58	1.5	NE	0.0-0.2	0.2-1.5	NE
TP59	1.5	NE	0.0-0.2	0.2-1.5	NE
TP60	1.5	NE	0.0-0.2	0.2-1.5	NE
TP61	1.5	NE	0.0-0.2	0.2-1.5	NE
TP62	1.5	NE	0.0-0.2	0.2-1.5	NE
TP63	1.5	NE	0.0-0.2	0.2-1.5	NE
TP64	1.5	NE	0.0-0.8	0.8-1.5	NE
TP65	1.5	NE	0.0-0.2	0.2-1.5	NE
TP66	1.5	NE	0.0-0.2	0.2-1.5	NE
TP67	1.5	NE	0.0-0.2	0.2-1.5	NE
TP68	1.5	NE	0.0-0.3	0.3-1.5	NE
TP69	1.5	NE	0.0-0.3	0.3-1.5	NE
TP70	1.5	NE	0.0-0.2	0.2-1.5	NE
TP71	1.5	NE	0.0-0.3	0.3-1.5	NE
TP72	1.5	NE	0.0-0.2	0.2-1.5	NE
TP73	1.5	NE	0.0-0.3	0.3-1.5	NE
TP74	1.5	NE	0.0-0.3	0.3-1.5	NE

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)	Bedrock (m)
TP75	1.5	NE	0.0-0.3	0.3-1.5	NE
TP76	1.5	NE	0.0-0.3	0.3-1.5	NE
TP77	1.5	NE	0.0-0.3	0.3-1.5	NE
TP78	1.5	NE	0.0-0.3	0.3-1.5	NE
TP79	1.5	NE	0.0-0.3	0.3-1.5	NE
TP80	1.5	NE	0.0-0.6	0.6-1.5	NE
TP81	1.5	NE	0.0-0.5	0.5-1.5	NE
TP82	1.5	NE	0.0-0.6	0.6-1.5	NE
TP83	1.5	NE	0.0-0.6	0.6-1.5	NE
TP84	1.5	NE	0.0-0.3	0.3-1.5	NE
TP85	1.5	NE	0.0-0.5	0.5-1.5	NE
TP86	0.4	0.0-0.3	NE	NE	0.3-0.4
TP87	0.4	0.0-0.3	NE	NE	0.3-0.4
TP88	0.4	0.0-0.3	NE	NE	0.3-0.4
TP89	1.5	NE	0.0-0.3	0.3-1.5	NE
TP90	1.5	NE	0.0-0.3	0.3-1.5	NE
TP91	0.4	NE	0.0-0.3	NE	0.3-0.4
TP92	1.5	NE	0.0-0.3	0.3-1.5	NE
TP93	1.5	0.0-0.3	NE	0.3-1.5	NE
TP94	0.4	0.0-0.3	NE	NE	0.3-0.4
TP95	1.5	NE	0.0-1.5	NE	NE
TP96	1.5	NE	0.0-1.5	NE	NE
TP97	1.5	NE	0.0-1.2	1.2-1.5	NE
TP98	1.5	NE	0.0-1.2	1.2-1.5	NE
TP99	1.5	NE	0.0-1.5	NE	NE
TP100	1.5	NE	0.0-1.2	1.2-1.5	NE
TP101	1.5	0.2-0.3	0.3-0.7	0.7-1.5	NE
TP102	1.5	NE	0.0-0.5	0.5-1.5	NE
TP103	1.5	NE	0.0-0.3	0.3-1.5	NE
TP104	1.5	NE	0.0-0.3	0.3-1.5	NE
TP105	1.5	NE	0.0-0.3	0.3-1.5	NE
TP106	1.5	NE	0.0-0.4	0.4-1.5	NE
TP107	1.5	NE	0.0-0.3	0.3-1.5	NE
TP108	1.5	NE	0.0-0.4	0.4-1.5	NE
TP109	1.5	NE	0.0-0.3	0.3-1.5	NE
TP110	1.5	NE	0.0-0.3	0.3-1.5	NE
TP111	1.5	NE	0.0-0.3	0.3-1.5	NE
TP112	1.5	NE	0.0-0.3	0.3-1.5	NE
TP113	1.5	NE	0.0-0.3	0.3-1.5	NE

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)	Bedrock (m)
TP114	1.5	NE	0.0-0.3	0.3-1.5	NE
TP115	1.5	NE	0.0-0.3	0.3-1.5	NE
TP116	1.5	NE	0.0-0.3	0.3-1.5	NE
TP117	1.5	NE	0.0-0.3	0.3-1.5	NE
TP118	1.5	NE	0.0-0.3	0.3-1.5	NE
TP119	1.5	NE	0.0-0.3	0.3-1.5	NE
TP120	1.5	NE	0.0-0.3	0.3-1.5	NE
TP121	1.5	NE	0.0-0.9	0.9-1.5	NE
TP122	1.5	NE	0.0-1.2	1.2-1.5	NE
TP123	1.5	NE	0.0-1.5	NE	NE
TP124	1.5	NE	0.0-1.5	NE	NE
TP125	1.5	NE	0.0-1.5	NE	NE

NE: Not encountered to the termination depth

The materials encountered in the test pits can be generalised as below:

Topsoil	Silty Clay, low plasticity, dark brown, with grass roots
Fill	Silty Sandy Clay, low plasticity, brown Silty Clay, low to medium plasticity, dark brown, traces of ironstone Silty Clay, medium to high plasticity, grey and orange, with ironstone, gravel and cobbles Silty Clay, medium plasticity, red and grey, with ironstone gravel Silty Clay, low to medium plasticity, brown Silty Clay, high plasticity, grey, with ironstone gravel Silty Clay, low to medium plasticity, brown mottled grey Silty Clay, high plasticity, red
Natural	Silty CLAY, medium to high plasticity, pale grey, with ironstone gravel Silty CLAY, medium to high plasticity, pale grey and pale brown Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel Silty CLAY, medium to high plasticity, red mottled grey, traces of ironstone Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles Silty CLAY, medium plasticity, grey/red, with ironstone gravel and cobbles Silty Sandy CLAY, low plasticity, red, with ironstone gravel
Bedrock	SILTSTONE, red and yellow-brown, extremely to distinctly weathered, very low to low strength

Groundwater Condition:
Groundwater was not observed in the test pits during the short time that they remained open. It must be noted that fluctuations in the level of groundwater might occur due to variations in rainfall, temperature, and/or other factors not evident during investigation.

Exposure Classification
Laboratory Testing

During field work, a total of 36 soil samples were collected for chemical testing in the NATA accredited laboratory of SGS for salinity and acidity properties. The laboratory test results certificates from SGS are attached at the end of this report and summarised in Table 2 along with exposure classification.

Table 2: Laboratory Test Results

Lots	Test Pit	Depth (m)	pH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
6058, 6059, 6088	TP1	0.2-0.3	**6.4**	**240**	8	1.92	A1
6060, 6061	TP2	0.2-0.3	**5.8**	**500**	8	4	A2
6062	TP3	0.2-0.3	-	-	8	-	A2
6063	TP4	0.2-0.3	**4.8**	**650**	8	5.2	A2
6064, 6065	TP5	0.2-0.3	**5.6**	**240**	8	1.92	A1
6066, 6067	TP6	0.7-0.8	**4.6**	**320**	8	2.56	A2
6068, 6069	TP7	0.7-0.8	**4.6**	**1900**	8	15.2	B1
6070, 6071	TP8	0.2-0.3	**5.2**	**360**	8	2.88	A2
6072, 6073	TP9	0.2-0.3	**6.3**	**520**	8	4.16	A2
6074, 6075	TP10	0.2-0.3	**5**	**470**	8	3.76	A2
6076, 6077	TP11	0.2-0.3	**5.5**	**350**	8	2.8	A2
6078, 6079	TP12	0.7-0.8	**5.1**	**230**	8	1.84	A2
6080, 6081	TP13	0.2-0.3	**4.9**	**510**	8	4.08	A2
6082, 6083	TP14	0.2-0.3	**4.9**	**710**	8	5.68	A2
6084, 6085	TP15	0.7-0.8	**5**	**670**	8	5.36	A2
6086, 6087, 6089	TP16	0.2-0.3	**5.2**	**370**	8	2.96	A2
6031, 6030	TP17	0.2-0.3	**5**	**510**	8	4.08	A2
6029, 6028	TP18	0.2-0.3	**5.3**	**480**	8	3.84	A2
6028, 6027	TP19	0.2-0.3	**4.7**	**280**	8	2.24	A2
6057, 6056	TP20	0.2-0.3	**4.9**	**760**	8	6.08	A2
6054, 6055	TP21	0.2-0.3	**4.6**	**560**	8	4.48	A2
6052, 6053	TP22	0.2-0.3	**5**	**470**	8	3.76	A2
6050, 6051	TP23	0.2-0.3	**5**	**190**	8	1.52	A2
6048, 6049	TP24	0.7-0.8	**5.2**	**620**	8	4.96	A2
6046, 6047	TP25	0.7-0.8	**5.2**	**400**	8	3.2	A2
6045	TP26	0.2-0.3	**5.3**	**220**	8	1.76	A2
6043, 6044	TP27	0.7-0.8	**5.2**	**400**	8	3.2	A2
6041, 6042	TP28	0.7-0.8	**4.8**	**580**	8	4.64	A2
6039, 6040	TP29	0.2-0.3	**5.1**	**350**	8	2.8	A2
6037, 6038	TP30	0.2-0.3	**5.1**	**590**	8	4.72	A2

Lots	Test Pit	Depth (m)	pH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
6035, 6036	TP31	0.7-0.8	**4.5**	**570**	8	4.56	B1
6033, 6034	TP32	0.2-0.3	**5**	**580**	8	4.64	A2
6004, 6003	TP33	0.2-0.3	**4.8**	**610**	8	4.88	A2
6001, 6002	TP34	0.2-0.3	**4.7**	**860**	8	6.88	A2
6025, 6026	TP35	0.2-0.3	**5.5**	**180**	8	1.44	A2
6023, 6024	TP36	0.2-0.3	**5**	**420**	8	3.36	A2
6021, 6022	TP37	0.2-0.3	**5.5**	**290**	8	2.32	A2
6019, 6020	TP38	0.2-0.3	**5.4**	**290**	8	2.32	A2
6017, 6018	TP39	0.5-0.6	**5.4**	**110**	8	0.88	A2
6015, 6016	TP40	0.2-0.3	**5.4**	**220**	8	1.76	A2
6013, 6014	TP41	0.2-0.3	**5.5**	**160**	8	1.28	A2
6011, 6012	TP42	0.2-0.3	**5.4**	**100**	8	0.8	A2
6009, 6010	TP43	0.5-0.6	**5.2**	**340**	8	2.72	A2
6007, 6008	TP44	0.5-0.6	**5.3**	**230**	8	1.84	A2
6005, 6006	TP45	0.5-0.6	**4.8**	**420**	8	3.36	A2
6089, 6090	TP46	0.5-0.6	**5**	**830**	8	6.64	A2
6125, 6126	TP47	0.5-0.6	**4.9**	**740**	8	5.92	A2
6123, 6124	TP48	0.5-0.6	**4.9**	**840**	8	6.72	A2
6121, 6122	TP49	0.2-0.3	**5.2**	**700**	8	5.6	A2
6119, 6120	TP50	0.5-0.6	**5**	**1200**	8	9.6	B1
6117, 6118	TP51	0.5-0.6	**5.5**	**1500**	8	12	B1
6115, 6116	TP52	0.2-0.3	**5**	**640**	8	5.12	A2
6113, 6114	TP53	0.2-0.3	**4.7**	**890**	8	7.12	A2
6111, 6112	TP54	0.2-0.3	**4.5**	**650**	8	5.2	B1
6108, 6109, 6110	TP55	0.2-0.3	**5**	**740**	8	5.92	A2
6107, 6106	TP56	0.5-0.6	**5**	**710**	8	5.68	A2
6104, 6105	TP57	0.5-0.6	**4.9**	**900**	8	7.2	A2
6103, 6102	TP58	0.5-0.6	**5**	**960**	8	7.68	A2
6101, 6100	TP59	0.5-0.6	**5.2**	**650**	8	5.2	A2
6098, 6099	TP60	0.5-0.6	**5.1**	**800**	8	6.4	A2
6096, 6097	TP61	0.5-0.6	**4.9**	**500**	8	4	A2
6094, 6095	TP62	0.5-0.6	**4.9**	**610**	8	4.88	A2
6093	TP63	0.5-0.6	**5.3**	**510**	8	4.08	A2
6092, 6091	TP64	0.5-0.6	**5.4**	**240**	8	1.92	A2
6127, 6128	TP65	0.2-0.3	**5.4**	**590**	8	4.72	A2

Lots	Test Pit	Depth (m)	pH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
6148, 6149	TP66	0.2-0.3	**5.2**	**640**	8	5.12	A2
6146, 6147	TP67	0.2-0.3	**5.2**	**970**	8	7.76	A2
6144, 6145	TP68	0.5-0.6	**5.5**	**720**	8	5.76	A2
6142, 6143	TP69	0.5-0.6	**5.4**	**410**	8	3.28	A2
6140, 6141	TP70	0.2-0.3	**5**	**680**	8	5.44	A2
6139	TP71	0.2-0.3	**5**	**550**	8	4.4	A2
6137, 6138	TP72	0.5-0.6	**5.4**	**300**	8	2.4	A2
6135, 6136	TP73	0.2-0.3	**5.1**	**550**	8	4.4	A2
6133, 6134	TP74	0.5-0.6	**4.9**	**540**	8	4.32	A2
6132, 6131	TP75	0.5-0.6	**5.3**	**510**	8	4.08	A2
6129, 6130	TP76	0.2-0.3	**6.1**	**300**	8	2.4	A1
6150, 6151	TP77	0.2-0.3	**5.5**	**280**	8	2.24	A2
6167, 6168	TP78	0.2-0.3	**5.6**	**320**	8	2.56	A1
6165, 6166	TP79	0.5-0.6	**5.4**	**360**	8	2.88	A2
6162, 6163, 6164	TP80	0.5-0.6	**7.2**	**630**	8	5.04	A2
6160, 6161	TP81	0.5-0.6	**5.7**	**250**	8	2	A1
6158, 6159	TP82	0.5-0.6	**4.7**	**120**	8	0.96	A2
6156, 6157	TP83	0.2-0.3	**8.7**	**620**	8	4.96	A2
6154, 6155	TP84	0.5-0.6	**6.4**	**990**	8	7.92	A2
6152, 6153	TP85	0.5-0.6	**5.8**	**300**	8	2.4	A1
6175, 6176	TP86	0.2-0.3	**5.7**	**370**	8	2.96	A1
6173, 6174	TP87	0.2-0.3	**5.7**	**270**	8	2.16	A1
6171, 6172	TP88	0.2-0.3	**5.7**	**190**	8	1.52	A1
6169, 6170	TP89	0.5-0.6	**6.1**	**730**	8	5.84	A2
6185, 6186	TP90	0.5-0.6	**5.2**	**540**	8	4.32	A2
6183, 6184	TP91	0.5-0.6	**5.2**	**970**	8	7.76	A2
6181, 6182	TP92	0.5-0.6	**5.1**	**780**	8	6.24	A2
6179, 6180	TP93	0.5-0.6	**5.1**	**640**	8	5.12	A2
6177, 6178	TP94	0.2-0.3	**5.6**	**84**	8	0.672	A1
6187, 6188	TP95	0.5-0.6	**5.8**	**210**	8	1.68	A1
6248, 6247	TP96	0.2-0.3	**5.1**	**200**	8	1.6	A2
6245, 6246	TP97	0.2-0.3	**5.3**	**220**	8	1.76	A2
6243, 6244	TP98	0.2-0.3	**5.2**	**210**	8	1.68	A2
6241, 6242	TP99	0.2-0.3	**4.7**	**370**	8	2.96	A2
6239, 6240	TP100	0.2-0.3	**5.3**	**370**	8	2.96	A2

Lots	Test Pit	Depth (m)	pH	EC (µS/cm)	Multiplying Factor	ECe (dS/m)	Exposure Classification
6237, 6238	TP101	0.5-0.6	**5.3**	**42**	8	0.336	A2
6235, 6236	TP102	0.2-0.3	**5.4**	**35**	8	0.28	A2
6233, 6234	TP103	0.2-0.3	**5.2**	**290**	8	2.32	A2
6231, 6232	TP104	0.5-0.6	**5.2**	**230**	8	1.84	A2
6229, 6230	TP105	0.5-0.6	**5.3**	**200**	8	1.6	A2
6227, 6228	TP106	0.5-0.6	**5.4**	**120**	8	0.96	A2
6225, 6226	TP107	0.2-0.3	**5.7**	**84**	8	0.672	A1
6223, 6224	TP108	0.5-0.6	**5.4**	**39**	8	0.312	A2
6221, 6222	TP109	0.5-0.6	**5.4**	**250**	8	2	A2
6219, 6220	TP110	0.5-0.6	**5.2**	**97**	8	0.776	A2
6217, 6218	TP111	0.5-0.6	**4.9**	**310**	8	2.48	A2
6215, 6216	TP112	0.5-0.6	**5.1**	**90**	8	0.72	A2
6213, 6214	TP113	0.2-0.3	**5.5**	**190**	8	1.52	A2
6211, 6212	TP114	0.5-0.6	**5.2**	**100**	8	0.8	A2
6209, 6010	TP115	0.2-0.3	**5.7**	**140**	8	1.12	A1
6207, 6208	TP116	0.5-0.6	**5.6**	**130**	8	1.04	A1
6205, 6206	TP117	0.5-0.6	**5.1**	**250**	8	2	A2
6203, 6204	TP118	0.5-0.6	**5.3**	**330**	8	2.64	A2
6201, 6202	TP119	0.2-0.3	**5.5**	**21**	8	0.168	A2
6199, 6200	TP120	0.2-0.3	**5.3**	**130**	8	1.04	A2
6197, 6198	TP121	0.5-0.6	**5.4**	**220**	8	1.76	A2
6195, 6196	TP122	0.2-0.3	**5.7**	**120**	8	0.96	A1
6193, 6194	TP123	0.2-0.3	**5.7**	**73**	8	0.584	A1
6191, 6192	TP124	0.5-0.6	**5.5**	**74**	8	0.592	A2
6189, 6190	TP125	0.2-0.3	**5.5**	**97**	8	0.776	A2

** The multiplication factor (MF) is a function of the soil texture and description (Site Investigations for Urban Salinity – 2002)*

Specifications

Electrical Conductivity (EC) testing was carried out to assess soil salinity, as outlined in the Department of Environment and Heritage (DEH) publication, "*Site Investigations for Urban Salinity - 2002*". The test conducted on a soil sample for salinity is generally made up of 1:5 soil water suspension, which is one part air dried soil to five parts distilled water. The determined EC is multiplied by a factor based on the texture of the soil sample (varying from 6 to 17) to obtain Corrected Electrical Conductivity designated as EC_e. Based on site observation, a multiplication factor of 8 was used for the soil encountered during field work. The DEH publication defines various classes of saline soils as follows:

Classification	EC_e (dS/m)	Exposure Classification AS2870-2011
Non-saline	<2	A1
Slightly saline	2 – 4	
Moderately saline	4 – 8	A2
Very saline	8 – 16	B1
Highly saline	>16	B2

Acidity (pH) testing was also conducted to determine the aggressivity of the soils to steel and concrete. The various classes of aggressive soils are defined as follows according to AS2870-2011.

Classification	pH	Exposure Classification AS2870-2011
Non-aggressive	>5.5	A1
Mild	4.5-5.5	A2
Moderate	4.0-4.5	B1
Severe	<4.0	B2

Based on the results, it is assessed that soils at the site are generally non-saline to slightly saline and non-aggressive to mildly aggressive to steel and concrete.

Conclusion

Based on the procedures described in AS2870-2011 the exposure classifications for the proposed lots are shown in Table 3.

Table 3 – Site Exposure Classifications (AS2870-2011)

Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification
6001	A2	6063	A2	6125	A2	6187	A1
6002	A2	6064	A1	6126	A2	6188	A1
6003	A2	6065	A1	6127	A2	6189	A2
6004	A2	6066	A2	6128	A2	6190	A2
6005	A2	6067	A2	6129	A1	6191	A2
6006	A2	6068	B2	6130	A1	6192	A2
6007	A2	6069	B2	6131	A2	6193	A1
6008	A2	6070	A2	6132	A2	6194	A1
6009	A2	6071	A2	6133	A2	6195	A1
6010	A2	6072	A2	6134	A2	6196	A1
6011	A2	6073	A2	6135	A2	6197	A2
6012	A2	6074	A2	6136	A2	6198	A2
6013	A2	6075	A2	6137	A2	6199	A2

Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification
6014	A2	6076	A2	6138	A2	6200	A2
6015	A2	6077	A2	6139	A2	6201	A2
6016	A2	6078	A2	6140	A2	6202	A2
6017	A2	6079	A2	6141	A2	6203	A2
6018	A2	6080	A2	6142	A2	6204	A2
6019	A2	6081	A2	6143	A2	6205	A2
6020	A2	6082	A2	6144	A2	6206	A2
6021	A2	6083	A2	6145	A2	6207	A1
6022	A2	6084	A2	6146	A2	6208	A1
6023	A2	6085	A2	6147	A2	6209	A1
6024	A2	6086	A2	6148	A2	6210	A1
6025	A2	6087	A2	6149	A2	6211	A2
6026	A2	6088	A1	6150	A2	6212	A2
6027	A2	6089	A2	6151	A2	6213	A2
6028	A2	6090	A2	6152	A1	6214	A2
6029	A2	6091	A2	6153	A1	6215	A2
6030	A2	6092	A2	6154	A2	6216	A2
6031	A2	6093	A2	6155	A2	6217	A2
6032	A2	6094	A2	6156	A2	6218	A2
6033	A2	6095	A2	6157	A2	6219	A2
6034	A2	6096	A2	6158	A2	6220	A2
6035	B1	6097	A2	6159	A2	6221	A2
6036	B1	6098	A2	6160	A1	6222	A2
6037	A2	6099	A2	6161	A1	6223	A2
6038	A2	6100	A2	6162	A2	6224	A2
6039	A2	6101	A2	6163	A2	6225	A1
6040	A2	6102	A2	6164	A2	6226	A1
6041	A2	6103	A2	6165	A2	6227	A2
6042	A2	6104	A2	6166	A2	6228	A2
6043	A2	6105	A2	6167	A1	6229	A2
6044	A2	6106	A2	6168	A1	6230	A2
6045	A2	6107	A2	6169	A2	6231	A2
6046	A2	6108	A2	6170	A2	6232	A2
6047	A2	6109	A2	6171	A1	6233	A2

Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification	Lot	Exposure Classification
6048	A2	6110	A2	6172	A1	6234	A2
6049	A2	6111	B1	6173	A1	6235	A2
6050	A2	6112	B1	6174	A1	6236	A2
6051	A2	6113	A2	6175	A1	6237	A2
6052	A2	6114	A2	6176	A1	6238	A2
6053	A2	6115	A2	6177	A1	6239	A2
6054	A2	6116	A2	6178	A1	6240	A2
6055	A2	6117	B2	6179	A2	6241	A2
6056	A2	6118	B2	6180	A2	6242	A2
6057	A2	6119	B2	6181	A2	6243	A2
6058	A1	6120	B2	6182	A2	6244	A2
6059	A1	6121	A2	6183	A2	6245	A2
6060	A2	6122	A2	6184	A2	6246	A2
6061	A2	6123	A2	6185	A2	6247	A2
6062	A2	6124	A2	6186	A2	6248	A2

Based on the results of the post site works salinity assessment, the site is suitable for the residential subdivision development. The construction requirements for A1, A2 & B1 classifications are shown below (AS2870-2011, Table 5.3).

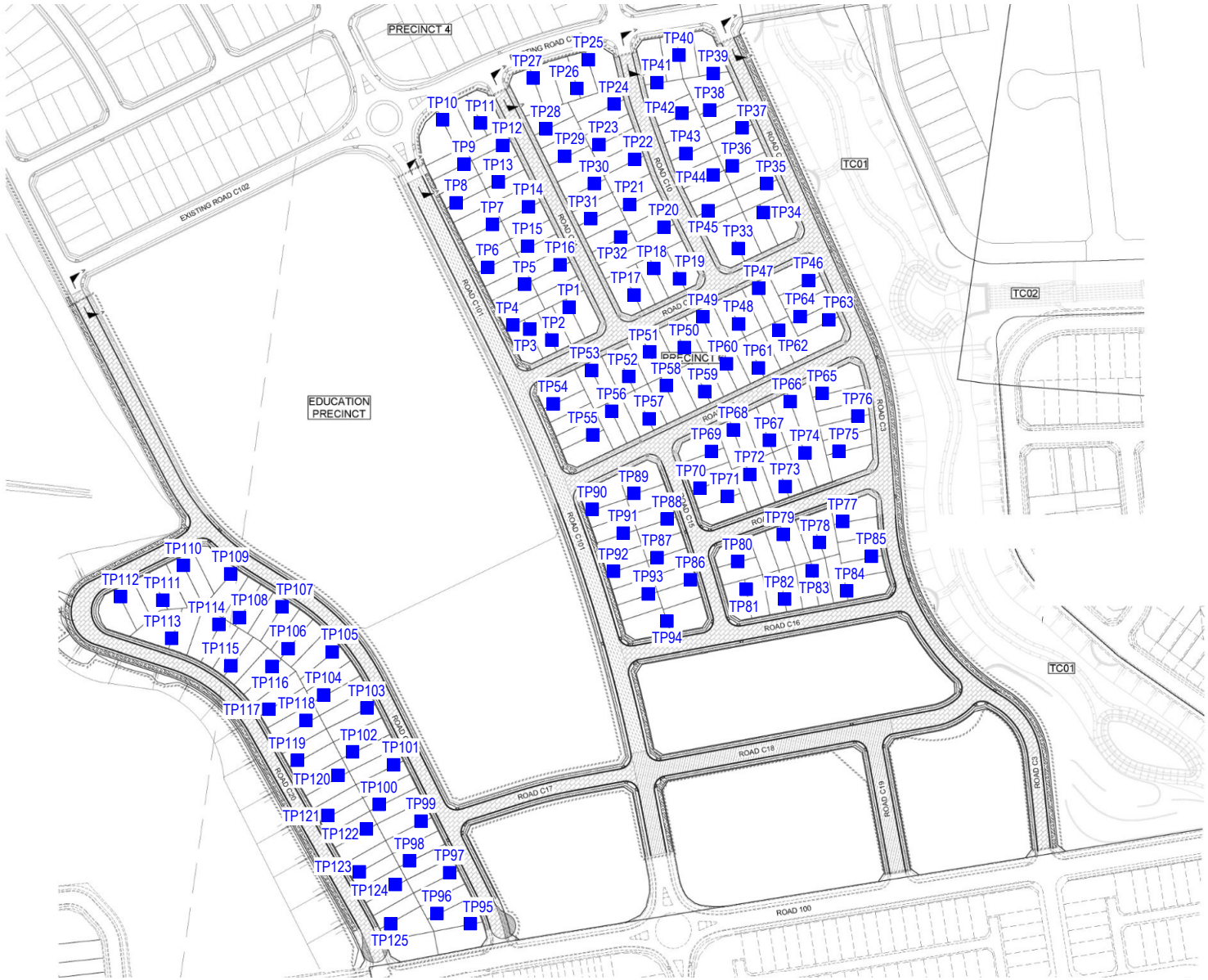
Classification	Minimum Design Characteristic Strength	Minimum Initial Curing
A1	20 MPa	3 days
A2	25 MPa	3 days
B1	32 MPa	7 days
B2	40 MPa	7 days

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully
GEOTECH TESTING PTY LTD

RAM RAVI-INDRAN
Geotechnical Engineer

Attached Drawing No 8599/27-AA1 - Test Pit Location Plan
Table A – Summary of Test Pits
SGS Laboratory Test Results



LEGEND

Test Pit

GEOTECH TESTING PTY LTD ®
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NOTES

1. Site features are indicative and are not to scale.
2. This drawing has been produced using a base plan provided by others to which additional information e.g test pits, borehole locations or notes have been added. Some or all of the plan may not be relevant at the time of producing this drawing

Daracon Contractors Pty Ltd
Residential Development
Woorong Park Precinct 6
Marsden Park

Test Pit Locations

Drawing No: 8599/27-AA1
Job No: 8599/27
Drawn By: MH
Date: 20 August 2019
Checked By: RR

File No: 8599-27
Layers: 0, AA1

TABLE A

Job No: 8599/27
Our Ref: 8599/27-AA

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP1	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.4-1.5	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M≤PL, stiff
TP2	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.3	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.3-1.5	0.7-0.8 (DS) 0.5-0.8 (U50)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M≤PL, stiff
TP3	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.4-1.5	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, stiff
TP4	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.6	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, stiff
	0.6-1.2	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, stiff to very stiff
	1.2-1.5	1.2-1.4 (DB)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff to very stiff
TP5	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.4-1.5	0.7-0.8 (DS)	FILL: Silty Clay, medium to high plasticity, grey and orange, with ironstone, gravel and cobbles, M<OMC, well compacted

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP6	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.0	0.2-0.3 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	1.0-1.5	0.7-0.8 (DS)	FILL: Silty Clay, medium to high plasticity, grey and orange, with ironstone, gravel and cobbles, M<OMC, well compacted
TP7	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.0	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	1.0-1.5	0.7-0.8 (DS) 1.0-1.2 (DB)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff
TP8	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.8	0.2-0.3 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.8-1.5	0.7-0.8 (DS)	FILL: Silty Clay, medium to high plasticity, grey and orange, with ironstone, gravel and cobbles, M<OMC, well compacted
TP9	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.3	0.2-0.3 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.3-1.0	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	1.0-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP10	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.3	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.3-1.3	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	1.3-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff
TP11	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.4-1.0	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	1.0-1.5		(CI) Silty Sandy CLAY, medium plasticity, dark brown and red, with sandstone gravel, M<PL, very stiff
TP12	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.9	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, with ironstone, gravel and cobbles, M<OMC, well compacted
	0.9-1.5	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, stiff to very stiff
TP13	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.5	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	0.5-1.5	0.7-0.8 (DS) 0.2-0.5 (U50)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, very stiff
TP14	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.0	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff
	1.0-1.5	0.7-0.8 (DS) 1.1-1.3 (DB)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, hard

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP15	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.3	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff
	1.3-1.5	0.7-0.8 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP16	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, medium to high plasticity, grey and orange, with ironstone, gravel and cobbles, M<OMC, well compacted
	0.4-1.5	0.7-0.8 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, hard
TP17	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.7	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.7-1.5	0.7-0.8 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, hard
TP18	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.4-1.5	0.7-0.8 (DS)	(CI) Silty CLAY, medium plasticity, grey/red, with ironstone gravel and cobbles, M<PL, very stiff
TP19	0.0-0.7	0.2-0.3 (DS)	(CL) Silty Sandy CLAY, low plasticity, red, with ironstone gravel, M<PL, very stiff to hard
	0.7-0.9	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
	0.9-1.5		(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff to hard

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP20	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.8	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
	0.8-1.5	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff to hard
TP21	0.0-0.5	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	0.5-1.3	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, stiff to very stiff
	1.3-1.5		(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, hard
TP22	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.2	0.2-0.3 (DS)	(CI-CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, stiff to very stiff
	1.2-1.5	0.7-0.8 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP23	0.0-0.5	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.5-0.9	0.7-0.8 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff to very stiff
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, stiff to very stiff
TP24	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.6	0.2-0.3 (DS)	FILL: Silty Clay, medium to high plasticity, grey and orange, with ironstone, gravel and cobbles, M<OMC, well compacted
	0.6-1.5	0.7-0.8 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, pale grey/red, with ironstone gravel and cobbles, M<PL, very stiff to hard
		0.7-1.0 (U50)	

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP25	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.5	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.5-1.3	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff
	1.3-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff
TP26	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.9	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff
		0.7-0.8 (DS)	
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff
TP27	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.3	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.3-1.0	0.7-0.8 (DS)	(CI-CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff
	1.0-1.5		(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
TP28	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.2	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
		0.7-0.8 (DS)	
		0.7-0.9 (DB)	
	1.2-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP29	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.3	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.3-0.8	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, stiff
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, stiff
TP30	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.9	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, stiff
	0.9-1.3	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, stiff to very stiff
	1.3-1.5		(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP31	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.4-0.7		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff
	0.7-1.5	0.7-0.8 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, very stiff
TP32	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.4	0.2-0.3 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, hard
	0.4-1.5	0.7-0.8 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, hard

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP33	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.3	0.2-0.3 (DS) 0.7-0.8 (DS) 0.3-0.5 (DB)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, M≤PL, very stiff
	1.3-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M≤PL, very stiff
TP34	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.5	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.5-1.0	0.7-0.8 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, very stiff
	1.0-1.5		(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
TP35	0.0-0.2	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.2	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
TP36	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.7	0.2-0.3 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.7-1.5	0.8-0.9 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
TP37	0.0-0.2	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-1.3	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with traces of ironstone and sandstone gravel M<OMC, well compacted
	1.3-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP38	0.0-0.1		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.1-0.4	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.4-1.2	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff to hard
TP39	0.0-0.2		FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.7	0.2-0.3 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.7-1.5	0.5-0.6 (DS) 0.6-0.9 (U50)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
TP40	0.0-0.2		TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.2-0.9	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, M<OMC, well compacted
	0.9-1.5	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, hard
TP41	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-1.3	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff
	1.3-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, stiff
TP42	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.9-1.5	1.0-1.2 (DB)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP43	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-1.1	0.5-0.6 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	1.1-15		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
TP44	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff
TP45	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-0.8	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.8-1.5	0.7-1.0 (U50)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff to hard
TP46	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-1.2	0.5-0.6 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel and cobbles, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, stiff to very stiff
TP47	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.9-1.5	1.1-1.3 (DB)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP48	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.8	0.5-0.6 (DS)	FILL: Silty Clay, high plasticity, grey, with ironstone gravel, M<OMC, well compacted
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP49	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.8	0.5-0.6 (DS)	FILL: Silty Clay, high plasticity, grey, with ironstone gravel, M<OMC, well compacted
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP50	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	FILL: Silty Clay, high plasticity, grey, with ironstone gravel, M<OMC, well compacted
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP51	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.6	0.5-0.6 (DS)	FILL: Silty Clay, high plasticity, grey, with ironstone gravel, M<OMC, well compacted
	0.6-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP52	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.8	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP53	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.8	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, dark brown, traces of ironstone, M<OMC, well compacted
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP54	0.0-0.1	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.1-0.7	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, hard
	0.7-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, hard
TP55	0.0-0.1	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.1-0.7	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff
	0.7-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, very stiff to hard
TP56	0.0-0.1	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.1-0.8	0.5-0.6 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, pale grey, with sandstone, cobbles and boulders, M<PL, stiff to very stiff
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP57	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.5	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP58	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.5	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP59	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.5	0.5-0.6 (DS) 0.4-0.7 (U50)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP60	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.5	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff to hard
TP61	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.5	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone and ironstone gravel, M<PL, stiff to very stiff
TP62	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.0	0.5-0.6 (DS)	(CH) Silty Sandy CLAY, high plasticity, pale grey and orange, with sandstone gravel and cobbles, M<PL, very stiff
	1.0-1.5	1.2-1.4 (DB)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with cobbles and boulders, M<PL, very stiff to hard
TP63	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff to very stiff
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, hard

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP64	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.8	0.5-0.6 (DS)	FILL: Silty Clay, medium plasticity, red and grey, with ironstone gravel, M<OMC, well compacted
	0.8-1.5		(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, hard
TP65	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff to very stiff
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
TP66	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.1	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey, with ironstone gravel, M<PL, very stiff to hard
	1.1-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, hard
TP67	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-1.5	0.5-0.6 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, pale grey and yellow brown, with ironstone gravel, M<PL, very stiff to hard
TP68	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone and ironstone gravel, M<PL, very stiff to hard
TP69	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with ironstone gravel, M<PL, very stiff to hard

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP70	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.2-0.7	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff to very stiff
	0.7-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, very stiff
TP71	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, hard
TP72	0.0-0.2	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.2-0.9	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, stiff to very stiff
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, hard
TP73	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CH) Silty CLAY, high plasticity, pale grey and pale brown, with ironstone gravel, M<PL, hard
TP74	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with ironstone gravel, M<PL, very stiff to hard
TP75	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.9	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, very stiff to hard
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP76	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.1	0.5-0.6 (DS)	(CI-CH) Silty CLAY, medium plasticity, pale grey, with ironstone gravel, M<PL, very stiff
	1.1-1.5		(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, very stiff
TP77	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.8	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey and yellow-brown, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
	0.8-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
TP78	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.9	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
	0.9-1.5		(CI-CH) Silty CLAY, medium to high plasticity, pale grey and yellow-brown, M<PL, very stiff to hard
TP79	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.7	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and pebbles, M<PL, very stiff
	0.7-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, hard
TP80	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.6	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown, with sandstone gravel, M<OMC, well compacted
	0.6-1.5		(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP81	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown, with sandstone gravel, M<OMC, well compacted
	0.5-1.5		(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP82	0.0-0.6	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.6-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and pebbles, M<PL, very stiff
TP83	0.0-0.6	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.6-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP84	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS) 0.5-0.8 (U50)	(CH) Silty CLAY, high plasticity, grey mottled red-yellow, M<PL, hard
TP85	0.0-0.5	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.5-1.5	0.5-0.6 (DS) 1.0-1.2 (DB)	(CI-CH) Silty CLAY, medium to high plasticity, orange and grey-brown, M<PL, very stiff
TP86	0.0-0.3	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.3-0.4		SILTSTONE, red and yellow-brown, extremely to distinctly weathered, very low to low strength, with ironstone layers
TP87	0.0-0.3	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.3-0.4		SILTSTONE, red and yellow-brown, extremely to distinctly weathered, very low to low strength, with ironstone layers

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP88	0.0-0.3	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.3-0.4		SILTSTONE, red and yellow-brown, extremely to distinctly weathered, very low to low strength, with ironstone layers
TP89	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff to hard
TP90	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey and yellow-red, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP91	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.4		SILTSTONE, red and yellow-brown, extremely to distinctly weathered, very low to low strength, with ironstone layers
TP92	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff to hard
TP93	0.0-0.3	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP94	0.0-0.3	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.3-0.4		SILTSTONE, red and yellow-brown, extremely to distinctly weathered, very low to low strength, with ironstone layers

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP95	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with shale and ironstone gravel, M<OMC, well compacted
TP96	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown and red, with sandstone and ironstone gravel, M<OMC, well compacted
TP97	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.2	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown and red, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
TP98	0.0-0.4	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.4-1.2	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown, with shale gravel, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
TP99	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with sandstone and ironstone gravel, M<OMC, well compacted
TP100	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.2	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with sandstone and ironstone gravel, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, very stiff to hard

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP101	0.0-0.3	0.2-0.3 (DS)	TOPSOIL: Silty Clay, low plasticity, dark brown, with grass roots
	0.3-0.7	0.5-0.6 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.7-1.5		(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP102	0.0-0.5	0.2-0.3 (DS)	FILL: Silty Clay, low to medium plasticity, brown, M<OMC, well compacted
	0.5-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and pebbles, M<PL, stiff to very stiff
TP103	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP104	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP105	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, with sandstone gravel, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel, boulders and cobbles, M<PL, very stiff
TP106	0.0-0.4	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.4-1.5	0.5-0.6 (DS) 0.6-0.9 (U50)	(CI-CH) Silty CLAY, medium to high plasticity, grey and red, with ironstone gravel, M<PL, stiff to very stiff
TP107	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey and yellow, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP108	0.0-0.4	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.4-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel, pebbles and cobbles, M<PL, stiff to very stiff
TP109	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS) 0.7-0.9 (DB)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<Pl, very stiff
TP110	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<Pl, very stiff to hard
TP111	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, hard
TP112	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty Sandy CLAY, medium plasticity, pale grey and orange, with sandstone gravel, M<PL, very stiff
TP113	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP114	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI-CH) Silty CLAY, medium to high plasticity, brown and yellow, with pebbles and cobbles, M<PL, very stiff to hard

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP115	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, very stiff
TP116	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, red and brown-grey, with red staining ironstone gravel and cobbles, M<PL, very stiff
TP117	0.0-0.3	0.2 -0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS) 0.5-0.8 (U50)	(CH) Silty CLAY, high plasticity, red mottled grey, traces of ironstone, M<PL, hard
TP118	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, very stiff to hard
TP119	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP120	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	(CI) Silty CLAY, medium plasticity, grey, with red staining ironstone gravel and cobbles, M<PL, stiff to very stiff
TP121	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-0.9	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with cobbles, M<OMC, well compacted
	0.9-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff

TABLE A

TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP122	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.2	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, M<OMC, well compacted
	1.2-1.5		(CH) Silty CLAY, high plasticity, pale grey and pale brown, M<PL, very stiff to hard
TP123	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with pebbles, cobbles and ironstone gravel, M<OMC, well compacted
TP124	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, with pebbles, cobbles and ironstone gravel, M<OMC, well compacted
TP125	0.0-0.3	0.2-0.3 (DS)	FILL: Silty Sandy Clay, low plasticity, brown, M<OMC, well compacted
	0.3-1.5	0.5-0.6 (DS)	FILL: Silty Clay, low to medium plasticity, brown mottled grey, M<OMC, well compacted

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

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Order Number	(Not specified)
Samples	117

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SGS Reference	**SE196385 R0**
Date Received	12/8/2019
Date Reported	21/8/2019

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

Dong Liang
Metals/Inorganics Team Leader

Shane McDermott
Inorganic/Metals Chemist

pH in soil (1:5) [AN101] Tested: 20/8/2019

PARAMETER	UOM	LOR	TP64 SOIL 0.2-0.3 6/8/2019 SE196385.001	TP64 SOIL 0.5-0.6 6/8/2019 SE196385.002	TP65 SOIL 0.2-0.3 6/8/2019 SE196385.003	TP65 SOIL 0.5-0.6 6/8/2019 SE196385.004	TP66 SOIL 0.2-0.3 6/8/2019 SE196385.005
pH	pH Units	0.1	9.2	5.4	5.4	5.6	5.2

PARAMETER	UOM	LOR	TP66 SOIL 0.5-0.6 6/8/2019 SE196385.006	TP67 SOIL 0.2-0.3 6/8/2019 SE196385.007	TP67 SOIL 0.5-0.6 6/8/2019 SE196385.008	TP68 SOIL 0.2-0.3 6/8/2019 SE196385.009	TP68 SOIL 0.5-0.6 6/8/2019 SE196385.010
pH	pH Units	0.1	4.9	5.2	5.3	6.3	5.5

PARAMETER	UOM	LOR	TP69 SOIL 0.2-0.3 6/8/2019 SE196385.011	TP69 SOIL 0.5-0.6 6/8/2019 SE196385.012	TP70 SOIL 0.2-0.3 6/8/2019 SE196385.013	TP70 SOIL 0.5-0.6 6/8/2019 SE196385.014	TP71 SOIL 0.2-0.3 6/8/2019 SE196385.015
pH	pH Units	0.1	5.2	5.4	5.0	5.6	5.0

PARAMETER	UOM	LOR	TP71 SOIL 0.5-0.6 6/8/2019 SE196385.016	TP72 SOIL 0.2-0.3 6/8/2019 SE196385.017	TP72 SOIL 0.5-0.6 6/8/2019 SE196385.018	TP73 SOIL 0.2-0.3 6/8/2019 SE196385.019	TP73 SOIL 0.5-0.6 6/8/2019 SE196385.020
pH	pH Units	0.1	5.2	6.2	5.4	5.1	5.0

PARAMETER	UOM	LOR	TP74 SOIL 0.2-0.3 6/8/2019 SE196385.021	TP74 SOIL 0.5-0.6 6/8/2019 SE196385.022	TP75 SOIL 0.2-0.3 6/8/2019 SE196385.023	TP75 SOIL 0.5-0.6 6/8/2019 SE196385.024	TP76 SOIL 0.2-0.3 7/8/2019 SE196385.025
pH	pH Units	0.1	6.7	4.9	5.6	5.3	6.1

PARAMETER	UOM	LOR	TP76 SOIL 0.5-0.6 7/8/2019 SE196385.026	TP77 SOIL 0.2-0.3 7/8/2019 SE196385.027	TP77 SOIL 0.5-0.6 7/8/2019 SE196385.028	TP78 SOIL 0.2-0.3 7/8/2019 SE196385.029	TP78 SOIL 0.5-0.6 7/8/2019 SE196385.030
pH	pH Units	0.1	5.8	5.5	5.6	5.6	6.0

PARAMETER	UOM	LOR	TP79 SOIL 0.2-0.3 7/8/2019 SE196385.031	TP79 SOIL 0.5-0.6 7/8/2019 SE196385.032	TP80 SOIL 0.2-0.3 7/8/2019 SE196385.033	TP80 SOIL 0.5-0.6 7/8/2019 SE196385.034	TP81 SOIL 0.2-0.3 7/8/2019 SE196385.035
pH	pH Units	0.1	5.7	5.4	8.6	7.2	6.9

pH in soil (1:5) [AN101] Tested: 20/8/2019 (continued)

PARAMETER	UOM	LOR	TP81 SOIL 0.5-0.6 7/8/2019 SE196385.036	TP82 SOIL 0.2-0.3 7/8/2019 SE196385.037	TP82 SOIL 0.5-0.6 7/8/2019 SE196385.038	TP83 SOIL 0.2-0.3 7/8/2019 SE196385.039	TP83 SOIL 0.5-0.6 7/8/2019 SE196385.040
pH	pH Units	0.1	5.7	5.6	4.7	8.7	5.8

PARAMETER	UOM	LOR	TP84 SOIL 0.2-0.3 7/8/2019 SE196385.041	TP84 SOIL 0.5-0.6 7/8/2019 SE196385.042	TP85 SOIL 0.2-0.3 7/8/2019 SE196385.043	TP85 SOIL 0.5-0.6 7/8/2019 SE196385.044	TP86 SOIL 0.2-0.3 7/8/2019 SE196385.045
pH	pH Units	0.1	6.0	6.4	7.5	5.8	5.7

PARAMETER	UOM	LOR	TP87 SOIL 0.2-0.3 7/8/2019 SE196385.046	TP88 SOIL 0.2-0.3 7/8/2019 SE196385.047	TP89 SOIL 0.2-0.3 7/8/2019 SE196385.048	TP89 SOIL 0.5-0.6 7/8/2019 SE196385.049	TP90 SOIL 0.2-0.3 7/8/2019 SE196385.050
pH	pH Units	0.1	5.7	5.7	5.7	6.1	5.6

PARAMETER	UOM	LOR	TP90 SOIL 0.5-0.6 7/8/2019 SE196385.051	TP91 SOIL 0.2-0.3 7/8/2019 SE196385.052	TP91 SOIL 0.5-0.6 7/8/2019 SE196385.053	TP92 SOIL 0.2-0.3 7/8/2019 SE196385.054	TP92 SOIL 0.5-0.6 7/8/2019 SE196385.055
pH	pH Units	0.1	5.2	6.4	5.2	5.7	5.1

PARAMETER	UOM	LOR	TP93 SOIL 0.2-0.3 7/8/2019 SE196385.056	TP93 SOIL 0.5-0.6 7/8/2019 SE196385.057	TP94 SOIL 0.2-0.3 7/8/2019 SE196385.058	TP95 SOIL 0.2-0.3 7/8/2019 SE196385.059	TP95 SOIL 0.5-0.6 7/8/2019 SE196385.060
pH	pH Units	0.1	5.3	5.1	5.6	5.7	5.8

PARAMETER	UOM	LOR	TP96 SOIL 0.2-0.3 7/8/2019 SE196385.061	TP96 SOIL 0.5-0.6 7/8/2019 SE196385.062	TP97 SOIL 0.2-0.3 7/8/2019 SE196385.063	TP97 SOIL 0.5-0.6 7/8/2019 SE196385.064	TP98 SOIL 0.2-0.3 7/8/2019 SE196385.065
pH	pH Units	0.1	5.1	5.4	5.3	5.2	5.2

PARAMETER	UOM	LOR	TP98 SOIL 0.5-0.6 7/8/2019 SE196385.066	TP99 SOIL 0.2-0.3 7/8/2019 SE196385.067	TP99 SOIL 0.5-0.6 7/8/2019 SE196385.068	TP100 SOIL 0.2-0.3 7/8/2019 SE196385.069	TP100 SOIL 0.5-0.6 7/8/2019 SE196385.070
pH	pH Units	0.1	5.4	4.7	5.3	5.3	5.3

pH in soil (1:5) [AN101] Tested: 20/8/2019 (continued)

PARAMETER	UOM	LOR	TP101 SOIL 0.2-0.3 8/8/2019 SE196385.071	TP101 SOIL 0.5-0.6 8/8/2019 SE196385.072	TP102 SOIL 0.2-0.3 8/8/2019 SE196385.073	TP102 SOIL 0.5-0.6 8/8/2019 SE196385.074	TP103 SOIL 0.2-0.3 8/8/2019 SE196385.075
pH	pH Units	0.1	6.3	5.3	5.4	5.6	5.2

PARAMETER	UOM	LOR	TP103 SOIL 0.5-0.6 8/8/2019 SE196385.076	TP104 SOIL 0.2-0.3 8/8/2019 SE196385.077	TP104 SOIL 0.5-0.6 8/8/2019 SE196385.078	TP105 SOIL 0.2-0.3 8/8/2019 SE196385.079	TP105 SOIL 0.5-0.6 8/8/2019 SE196385.080
pH	pH Units	0.1	5.5	5.7	5.2	5.5	5.3

PARAMETER	UOM	LOR	TP106 SOIL 0.2-0.3 8/8/2019 SE196385.081	TP106 SOIL 0.5-0.6 8/8/2019 SE196385.082	TP107 SOIL 0.2-0.3 8/8/2019 SE196385.083	TP108 SOIL 0.2-0.3 8/8/2019 SE196385.084	TP108 SOIL 0.5-0.6 8/8/2019 SE196385.085
pH	pH Units	0.1	5.4	5.8	5.7	5.6	5.4

PARAMETER	UOM	LOR	TP109 SOIL 0.2-0.3 8/8/2019 SE196385.086	TP109 SOIL 0.5-0.6 8/8/2019 SE196385.087	TP110 SOIL 0.2-0.3 8/8/2019 SE196385.088	TP110 SOIL 0.5-0.6 8/8/2019 SE196385.089	TP111 SOIL 0.2-0.3 8/8/2019 SE196385.090
pH	pH Units	0.1	6.3	5.4	7.1	5.2	5.3

PARAMETER	UOM	LOR	TP111 SOIL 0.5-0.6 8/8/2019 SE196385.091	TP112 SOIL 0.2-0.3 8/8/2019 SE196385.092	TP112 SOIL 0.5-0.6 8/8/2019 SE196385.093	TP113 SOIL 0.2-0.3 8/8/2019 SE196385.094	TP113 SOIL 0.5-0.6 8/8/2019 SE196385.095
pH	pH Units	0.1	4.9	5.6	5.1	6.7	5.5

PARAMETER	UOM	LOR	TP114 SOIL 0.2-0.3 8/8/2019 SE196385.096	TP114 SOIL 0.5-0.6 8/8/2019 SE196385.097	TP115 SOIL 0.2-0.3 8/8/2019 SE196385.098	TP116 SOIL 0.2-0.3 8/8/2019 SE196385.099	TP116 SOIL 0.5-0.6 8/8/2019 SE196385.100
pH	pH Units	0.1	5.7	5.2	5.7	5.7	5.6

PARAMETER	UOM	LOR	TP117 SOIL 0.2-0.3 8/8/2019 SE196385.101	TP117 SOIL 0.5-0.6 8/8/2019 SE196385.102	TP118 SOIL 0.2-0.3 8/8/2019 SE196385.103	TP118 SOIL 0.5-0.6 8/8/2019 SE196385.104	TP119 SOIL 0.2-0.3 8/8/2019 SE196385.105
pH	pH Units	0.1	5.6	5.1	4.9	5.3	5.5

pH in soil (1:5) [AN101] Tested: 20/8/2019 (continued)

PARAMETER	UOM	LOR	TP119 SOIL 0.5-0.6 8/8/2019 SE196385.106	TP120 SOIL 0.2-0.3 8/8/2019 SE196385.107	TP120 SOIL 0.5-0.6 8/8/2019 SE196385.108	TP121 SOIL 0.2-0.3 8/8/2019 SE196385.109	TP121 SOIL 0.5-0.6 8/8/2019 SE196385.110
pH	pH Units	0.1	6.0	5.3	5.1	5.8	5.4

PARAMETER	UOM	LOR	TP122 SOIL 0.2-0.3 8/8/2019 SE196385.111	TP122 SOIL 0.5-0.6 8/8/2019 SE196385.112	TP123 SOIL 0.2-0.3 8/8/2019 SE196385.113	TP124 SOIL 0.2-0.3 8/8/2019 SE196385.114	TP124 SOIL 0.5-0.6 8/8/2019 SE196385.115
pH	pH Units	0.1	5.7	5.6	5.7	5.6	5.5

PARAMETER	UOM	LOR	TP125 SOIL 0.2-0.3 8/8/2019 SE196385.116	TP125 SOIL 0.5-0.6 8/8/2019 SE196385.117
pH	pH Units	0.1	5.5	5.4

Conductivity and TDS by Calculation - Soil [AN106] Tested: 20/8/2019

PARAMETER	UOM	LOR	TP64 SOIL 0.2-0.3 6/8/2019 SE196385.001	TP64 SOIL 0.5-0.6 6/8/2019 SE196385.002	TP65 SOIL 0.2-0.3 6/8/2019 SE196385.003	TP65 SOIL 0.5-0.6 6/8/2019 SE196385.004	TP66 SOIL 0.2-0.3 6/8/2019 SE196385.005
Conductivity of Extract (1:5 as received)	µS/cm	1	570	210	530	200	560
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	640	240	590	230	640

PARAMETER	UOM	LOR	TP66 SOIL 0.5-0.6 6/8/2019 SE196385.006	TP67 SOIL 0.2-0.3 6/8/2019 SE196385.007	TP67 SOIL 0.5-0.6 6/8/2019 SE196385.008	TP68 SOIL 0.2-0.3 6/8/2019 SE196385.009	TP68 SOIL 0.5-0.6 6/8/2019 SE196385.010
Conductivity of Extract (1:5 as received)	µS/cm	1	480	830	510	660	590
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	590	970	590	720	720

PARAMETER	UOM	LOR	TP69 SOIL 0.2-0.3 6/8/2019 SE196385.011	TP69 SOIL 0.5-0.6 6/8/2019 SE196385.012	TP70 SOIL 0.2-0.3 6/8/2019 SE196385.013	TP70 SOIL 0.5-0.6 6/8/2019 SE196385.014	TP71 SOIL 0.2-0.3 6/8/2019 SE196385.015
Conductivity of Extract (1:5 as received)	µS/cm	1	410	370	590	620	490
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	410	680	790	550

PARAMETER	UOM	LOR	TP71 SOIL 0.5-0.6 6/8/2019 SE196385.016	TP72 SOIL 0.2-0.3 6/8/2019 SE196385.017	TP72 SOIL 0.5-0.6 6/8/2019 SE196385.018	TP73 SOIL 0.2-0.3 6/8/2019 SE196385.019	TP73 SOIL 0.5-0.6 6/8/2019 SE196385.020
Conductivity of Extract (1:5 as received)	µS/cm	1	630	230	270	480	530
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	740	250	300	550	630

PARAMETER	UOM	LOR	TP74 SOIL 0.2-0.3 6/8/2019 SE196385.021	TP74 SOIL 0.5-0.6 6/8/2019 SE196385.022	TP75 SOIL 0.2-0.3 6/8/2019 SE196385.023	TP75 SOIL 0.5-0.6 6/8/2019 SE196385.024	TP76 SOIL 0.2-0.3 7/8/2019 SE196385.025
Conductivity of Extract (1:5 as received)	µS/cm	1	400	440	310	460	280
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	430	540	330	510	300

PARAMETER	UOM	LOR	TP76 SOIL 0.5-0.6 7/8/2019 SE196385.026	TP77 SOIL 0.2-0.3 7/8/2019 SE196385.027	TP77 SOIL 0.5-0.6 7/8/2019 SE196385.028	TP78 SOIL 0.2-0.3 7/8/2019 SE196385.029	TP78 SOIL 0.5-0.6 7/8/2019 SE196385.030
Conductivity of Extract (1:5 as received)	µS/cm	1	96	240	62	290	68
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	100	280	68	320	75

PARAMETER	UOM	LOR	TP79 SOIL 0.2-0.3 7/8/2019 SE196385.031	TP79 SOIL 0.5-0.6 7/8/2019 SE196385.032	TP80 SOIL 0.2-0.3 7/8/2019 SE196385.033	TP80 SOIL 0.5-0.6 7/8/2019 SE196385.034	TP81 SOIL 0.2-0.3 7/8/2019 SE196385.035
Conductivity of Extract (1:5 as received)	µS/cm	1	200	300	420	540	340
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	230	360	450	630	360

Conductivity and TDS by Calculation - Soil [AN106] Tested: 20/8/2019 (continued)

PARAMETER	UOM	LOR	TP81 SOIL 0.5-0.6 7/8/2019 SE196385.036	TP82 SOIL 0.2-0.3 7/8/2019 SE196385.037	TP82 SOIL 0.5-0.6 7/8/2019 SE196385.038	TP83 SOIL 0.2-0.3 7/8/2019 SE196385.039	TP83 SOIL 0.5-0.6 7/8/2019 SE196385.040
Conductivity of Extract (1:5 as received)	µS/cm	1	220	360	110	560	280
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	250	400	120	620	330

PARAMETER	UOM	LOR	TP84 SOIL 0.2-0.3 7/8/2019 SE196385.041	TP84 SOIL 0.5-0.6 7/8/2019 SE196385.042	TP85 SOIL 0.2-0.3 7/8/2019 SE196385.043	TP85 SOIL 0.5-0.6 7/8/2019 SE196385.044	TP86 SOIL 0.2-0.3 7/8/2019 SE196385.045
Conductivity of Extract (1:5 as received)	µS/cm	1	370	800	330	270	340
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	390	990	360	300	370

PARAMETER	UOM	LOR	TP87 SOIL 0.2-0.3 7/8/2019 SE196385.046	TP88 SOIL 0.2-0.3 7/8/2019 SE196385.047	TP89 SOIL 0.2-0.3 7/8/2019 SE196385.048	TP89 SOIL 0.5-0.6 7/8/2019 SE196385.049	TP90 SOIL 0.2-0.3 7/8/2019 SE196385.050
Conductivity of Extract (1:5 as received)	µS/cm	1	250	190	280	620	250
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	270	190	290	730	260

PARAMETER	UOM	LOR	TP90 SOIL 0.5-0.6 7/8/2019 SE196385.051	TP91 SOIL 0.2-0.3 7/8/2019 SE196385.052	TP91 SOIL 0.5-0.6 7/8/2019 SE196385.053	TP92 SOIL 0.2-0.3 7/8/2019 SE196385.054	TP92 SOIL 0.5-0.6 7/8/2019 SE196385.055
Conductivity of Extract (1:5 as received)	µS/cm	1	470	270	810	270	620
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	540	280	970	270	780

PARAMETER	UOM	LOR	TP93 SOIL 0.2-0.3 7/8/2019 SE196385.056	TP93 SOIL 0.5-0.6 7/8/2019 SE196385.057	TP94 SOIL 0.2-0.3 7/8/2019 SE196385.058	TP95 SOIL 0.2-0.3 7/8/2019 SE196385.059	TP95 SOIL 0.5-0.6 7/8/2019 SE196385.060
Conductivity of Extract (1:5 as received)	µS/cm	1	210	540	79	120	180
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	220	640	84	130	210

PARAMETER	UOM	LOR	TP96 SOIL 0.2-0.3 7/8/2019 SE196385.061	TP96 SOIL 0.5-0.6 7/8/2019 SE196385.062	TP97 SOIL 0.2-0.3 7/8/2019 SE196385.063	TP97 SOIL 0.5-0.6 7/8/2019 SE196385.064	TP98 SOIL 0.2-0.3 7/8/2019 SE196385.065
Conductivity of Extract (1:5 as received)	µS/cm	1	180	220	210	200	200
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	200	250	220	240	210

PARAMETER	UOM	LOR	TP98 SOIL 0.5-0.6 7/8/2019 SE196385.066	TP99 SOIL 0.2-0.3 7/8/2019 SE196385.067	TP99 SOIL 0.5-0.6 7/8/2019 SE196385.068	TP100 SOIL 0.2-0.3 7/8/2019 SE196385.069	TP100 SOIL 0.5-0.6 7/8/2019 SE196385.070
Conductivity of Extract (1:5 as received)	µS/cm	1	230	310	240	330	270
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	260	370	250	370	320

Conductivity and TDS by Calculation - Soil [AN106] Tested: 20/8/2019 (continued)

PARAMETER	UOM	LOR	TP101 SOIL 0.2-0.3 8/8/2019 SE196385.071	TP101 SOIL 0.5-0.6 8/8/2019 SE196385.072	TP102 SOIL 0.2-0.3 8/8/2019 SE196385.073	TP102 SOIL 0.5-0.6 8/8/2019 SE196385.074	TP103 SOIL 0.2-0.3 8/8/2019 SE196385.075
Conductivity of Extract (1:5 as received)	µS/cm	1	57	34	32	19	250
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	63	42	35	21	290

PARAMETER	UOM	LOR	TP103 SOIL 0.5-0.6 8/8/2019 SE196385.076	TP104 SOIL 0.2-0.3 8/8/2019 SE196385.077	TP104 SOIL 0.5-0.6 8/8/2019 SE196385.078	TP105 SOIL 0.2-0.3 8/8/2019 SE196385.079	TP105 SOIL 0.5-0.6 8/8/2019 SE196385.080
Conductivity of Extract (1:5 as received)	µS/cm	1	89	170	200	150	170
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	98	180	230	180	200

PARAMETER	UOM	LOR	TP106 SOIL 0.2-0.3 8/8/2019 SE196385.081	TP106 SOIL 0.5-0.6 8/8/2019 SE196385.082	TP107 SOIL 0.2-0.3 8/8/2019 SE196385.083	TP108 SOIL 0.2-0.3 8/8/2019 SE196385.084	TP108 SOIL 0.5-0.6 8/8/2019 SE196385.085
Conductivity of Extract (1:5 as received)	µS/cm	1	33	100	77	100	34
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	38	120	84	110	39

PARAMETER	UOM	LOR	TP109 SOIL 0.2-0.3 8/8/2019 SE196385.086	TP109 SOIL 0.5-0.6 8/8/2019 SE196385.087	TP110 SOIL 0.2-0.3 8/8/2019 SE196385.088	TP110 SOIL 0.5-0.6 8/8/2019 SE196385.089	TP111 SOIL 0.2-0.3 8/8/2019 SE196385.090
Conductivity of Extract (1:5 as received)	µS/cm	1	210	210	350	78	230
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	220	250	370	97	260

PARAMETER	UOM	LOR	TP111 SOIL 0.5-0.6 8/8/2019 SE196385.091	TP112 SOIL 0.2-0.3 8/8/2019 SE196385.092	TP112 SOIL 0.5-0.6 8/8/2019 SE196385.093	TP113 SOIL 0.2-0.3 8/8/2019 SE196385.094	TP113 SOIL 0.5-0.6 8/8/2019 SE196385.095
Conductivity of Extract (1:5 as received)	µS/cm	1	260	300	80	170	38
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	310	320	90	190	45

PARAMETER	UOM	LOR	TP114 SOIL 0.2-0.3 8/8/2019 SE196385.096	TP114 SOIL 0.5-0.6 8/8/2019 SE196385.097	TP115 SOIL 0.2-0.3 8/8/2019 SE196385.098	TP116 SOIL 0.2-0.3 8/8/2019 SE196385.099	TP116 SOIL 0.5-0.6 8/8/2019 SE196385.100
Conductivity of Extract (1:5 as received)	µS/cm	1	170	96	130	120	130
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	190	100	140	140	130

PARAMETER	UOM	LOR	TP117 SOIL 0.2-0.3 8/8/2019 SE196385.101	TP117 SOIL 0.5-0.6 8/8/2019 SE196385.102	TP118 SOIL 0.2-0.3 8/8/2019 SE196385.103	TP118 SOIL 0.5-0.6 8/8/2019 SE196385.104	TP119 SOIL 0.2-0.3 8/8/2019 SE196385.105
Conductivity of Extract (1:5 as received)	µS/cm	1	180	220	320	310	20
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	190	250	340	330	21

Conductivity and TDS by Calculation - Soil [AN106] Tested: 20/8/2019 (continued)

PARAMETER	UOM	LOR	TP119 SOIL 0.5-0.6 8/8/2019 SE196385.106	TP120 SOIL 0.2-0.3 8/8/2019 SE196385.107	TP120 SOIL 0.5-0.6 8/8/2019 SE196385.108	TP121 SOIL 0.2-0.3 8/8/2019 SE196385.109	TP121 SOIL 0.5-0.6 8/8/2019 SE196385.110
Conductivity of Extract (1:5 as received)	µS/cm	1	22	120	82	91	190
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	24	130	93	98	220

PARAMETER	UOM	LOR	TP122 SOIL 0.2-0.3 8/8/2019 SE196385.111	TP122 SOIL 0.5-0.6 8/8/2019 SE196385.112	TP123 SOIL 0.2-0.3 8/8/2019 SE196385.113	TP124 SOIL 0.2-0.3 8/8/2019 SE196385.114	TP124 SOIL 0.5-0.6 8/8/2019 SE196385.115
Conductivity of Extract (1:5 as received)	µS/cm	1	110	120	71	130	70
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	120	130	73	140	74

PARAMETER	UOM	LOR	TP125 SOIL 0.2-0.3 8/8/2019 SE196385.116	TP125 SOIL 0.5-0.6 8/8/2019 SE196385.117
Conductivity of Extract (1:5 as received)	µS/cm	1	90	160
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	97	180

Moisture Content [AN002] Tested: 15/8/2019

PARAMETER	UOM	LOR	TP64 SOIL 0.2-0.3 6/8/2019 SE196385.001	TP64 SOIL 0.5-0.6 6/8/2019 SE196385.002	TP65 SOIL 0.2-0.3 6/8/2019 SE196385.003	TP65 SOIL 0.5-0.6 6/8/2019 SE196385.004	TP66 SOIL 0.2-0.3 6/8/2019 SE196385.005
% Moisture	%w/w	0.5	10	13	10	12	12

PARAMETER	UOM	LOR	TP66 SOIL 0.5-0.6 6/8/2019 SE196385.006	TP67 SOIL 0.2-0.3 6/8/2019 SE196385.007	TP67 SOIL 0.5-0.6 6/8/2019 SE196385.008	TP68 SOIL 0.2-0.3 6/8/2019 SE196385.009	TP68 SOIL 0.5-0.6 6/8/2019 SE196385.010
% Moisture	%w/w	0.5	20	14	14	9.3	17

PARAMETER	UOM	LOR	TP69 SOIL 0.2-0.3 6/8/2019 SE196385.011	TP69 SOIL 0.5-0.6 6/8/2019 SE196385.012	TP70 SOIL 0.2-0.3 6/8/2019 SE196385.013	TP70 SOIL 0.5-0.6 6/8/2019 SE196385.014	TP71 SOIL 0.2-0.3 6/8/2019 SE196385.015
% Moisture	%w/w	0.5	14	9.0	12	21	12

PARAMETER	UOM	LOR	TP71 SOIL 0.5-0.6 6/8/2019 SE196385.016	TP72 SOIL 0.2-0.3 6/8/2019 SE196385.017	TP72 SOIL 0.5-0.6 6/8/2019 SE196385.018	TP73 SOIL 0.2-0.3 6/8/2019 SE196385.019	TP73 SOIL 0.5-0.6 6/8/2019 SE196385.020
% Moisture	%w/w	0.5	15	8.9	11	12	16

PARAMETER	UOM	LOR	TP74 SOIL 0.2-0.3 6/8/2019 SE196385.021	TP74 SOIL 0.5-0.6 6/8/2019 SE196385.022	TP75 SOIL 0.2-0.3 6/8/2019 SE196385.023	TP75 SOIL 0.5-0.6 6/8/2019 SE196385.024	TP76 SOIL 0.2-0.3 7/8/2019 SE196385.025
% Moisture	%w/w	0.5	7.2	19	7.3	11	7.3

PARAMETER	UOM	LOR	TP76 SOIL 0.5-0.6 7/8/2019 SE196385.026	TP77 SOIL 0.2-0.3 7/8/2019 SE196385.027	TP77 SOIL 0.5-0.6 7/8/2019 SE196385.028	TP78 SOIL 0.2-0.3 7/8/2019 SE196385.029	TP78 SOIL 0.5-0.6 7/8/2019 SE196385.030
% Moisture	%w/w	0.5	7.6	16	9.0	7.1	10

PARAMETER	UOM	LOR	TP79 SOIL 0.2-0.3 7/8/2019 SE196385.031	TP79 SOIL 0.5-0.6 7/8/2019 SE196385.032	TP80 SOIL 0.2-0.3 7/8/2019 SE196385.033	TP80 SOIL 0.5-0.6 7/8/2019 SE196385.034	TP81 SOIL 0.2-0.3 7/8/2019 SE196385.035
% Moisture	%w/w	0.5	10	18	6.0	15	6.6

Moisture Content [AN002] Tested: 15/8/2019 (continued)

PARAMETER	UOM	LOR	TP81 SOIL 0.5-0.6 7/8/2019 SE196385.036	TP82 SOIL 0.2-0.3 7/8/2019 SE196385.037	TP82 SOIL 0.5-0.6 7/8/2019 SE196385.038	TP83 SOIL 0.2-0.3 7/8/2019 SE196385.039	TP83 SOIL 0.5-0.6 7/8/2019 SE196385.040
% Moisture	%w/w	0.5	12	10	6.1	9.3	15

PARAMETER	UOM	LOR	TP84 SOIL 0.2-0.3 7/8/2019 SE196385.041	TP84 SOIL 0.5-0.6 7/8/2019 SE196385.042	TP85 SOIL 0.2-0.3 7/8/2019 SE196385.043	TP85 SOIL 0.5-0.6 7/8/2019 SE196385.044	TP86 SOIL 0.2-0.3 7/8/2019 SE196385.045
% Moisture	%w/w	0.5	5.5	19	6.4	9.2	7.2

PARAMETER	UOM	LOR	TP87 SOIL 0.2-0.3 7/8/2019 SE196385.046	TP88 SOIL 0.2-0.3 7/8/2019 SE196385.047	TP89 SOIL 0.2-0.3 7/8/2019 SE196385.048	TP89 SOIL 0.5-0.6 7/8/2019 SE196385.049	TP90 SOIL 0.2-0.3 7/8/2019 SE196385.050
% Moisture	%w/w	0.5	6.1	3.7	4.7	16	4.6

PARAMETER	UOM	LOR	TP90 SOIL 0.5-0.6 7/8/2019 SE196385.051	TP91 SOIL 0.2-0.3 7/8/2019 SE196385.052	TP91 SOIL 0.5-0.6 7/8/2019 SE196385.053	TP92 SOIL 0.2-0.3 7/8/2019 SE196385.054	TP92 SOIL 0.5-0.6 7/8/2019 SE196385.055
% Moisture	%w/w	0.5	13	3.9	17	3.1	19

PARAMETER	UOM	LOR	TP93 SOIL 0.2-0.3 7/8/2019 SE196385.056	TP93 SOIL 0.5-0.6 7/8/2019 SE196385.057	TP94 SOIL 0.2-0.3 7/8/2019 SE196385.058	TP95 SOIL 0.2-0.3 7/8/2019 SE196385.059	TP95 SOIL 0.5-0.6 7/8/2019 SE196385.060
% Moisture	%w/w	0.5	5.2	16	5.4	9.7	13

PARAMETER	UOM	LOR	TP96 SOIL 0.2-0.3 7/8/2019 SE196385.061	TP96 SOIL 0.5-0.6 7/8/2019 SE196385.062	TP97 SOIL 0.2-0.3 7/8/2019 SE196385.063	TP97 SOIL 0.5-0.6 7/8/2019 SE196385.064	TP98 SOIL 0.2-0.3 7/8/2019 SE196385.065
% Moisture	%w/w	0.5	12	11	7.3	15	8.0

PARAMETER	UOM	LOR	TP98 SOIL 0.5-0.6 7/8/2019 SE196385.066	TP99 SOIL 0.2-0.3 7/8/2019 SE196385.067	TP99 SOIL 0.5-0.6 7/8/2019 SE196385.068	TP100 SOIL 0.2-0.3 7/8/2019 SE196385.069	TP100 SOIL 0.5-0.6 7/8/2019 SE196385.070
% Moisture	%w/w	0.5	11	17	6.6	12	15

Moisture Content [AN002] Tested: 15/8/2019 (continued)

PARAMETER	UOM	LOR	TP101 SOIL 0.2-0.3 8/8/2019 SE196385.071	TP101 SOIL 0.5-0.6 8/8/2019 SE196385.072	TP102 SOIL 0.2-0.3 8/8/2019 SE196385.073	TP102 SOIL 0.5-0.6 8/8/2019 SE196385.074	TP103 SOIL 0.2-0.3 8/8/2019 SE196385.075
% Moisture	%w/w	0.5	11	20	8.7	10	12

PARAMETER	UOM	LOR	TP103 SOIL 0.5-0.6 8/8/2019 SE196385.076	TP104 SOIL 0.2-0.3 8/8/2019 SE196385.077	TP104 SOIL 0.5-0.6 8/8/2019 SE196385.078	TP105 SOIL 0.2-0.3 8/8/2019 SE196385.079	TP105 SOIL 0.5-0.6 8/8/2019 SE196385.080
% Moisture	%w/w	0.5	9.4	2.5	15	15	14

PARAMETER	UOM	LOR	TP106 SOIL 0.2-0.3 8/8/2019 SE196385.081	TP106 SOIL 0.5-0.6 8/8/2019 SE196385.082	TP107 SOIL 0.2-0.3 8/8/2019 SE196385.083	TP108 SOIL 0.2-0.3 8/8/2019 SE196385.084	TP108 SOIL 0.5-0.6 8/8/2019 SE196385.085
% Moisture	%w/w	0.5	12	16	7.8	8.4	14

PARAMETER	UOM	LOR	TP109 SOIL 0.2-0.3 8/8/2019 SE196385.086	TP109 SOIL 0.5-0.6 8/8/2019 SE196385.087	TP110 SOIL 0.2-0.3 8/8/2019 SE196385.088	TP110 SOIL 0.5-0.6 8/8/2019 SE196385.089	TP111 SOIL 0.2-0.3 8/8/2019 SE196385.090
% Moisture	%w/w	0.5	4.7	16	6.4	20	8.6

PARAMETER	UOM	LOR	TP111 SOIL 0.5-0.6 8/8/2019 SE196385.091	TP112 SOIL 0.2-0.3 8/8/2019 SE196385.092	TP112 SOIL 0.5-0.6 8/8/2019 SE196385.093	TP113 SOIL 0.2-0.3 8/8/2019 SE196385.094	TP113 SOIL 0.5-0.6 8/8/2019 SE196385.095
% Moisture	%w/w	0.5	17	7.5	11	8.4	16

PARAMETER	UOM	LOR	TP114 SOIL 0.2-0.3 8/8/2019 SE196385.096	TP114 SOIL 0.5-0.6 8/8/2019 SE196385.097	TP115 SOIL 0.2-0.3 8/8/2019 SE196385.098	TP116 SOIL 0.2-0.3 8/8/2019 SE196385.099	TP116 SOIL 0.5-0.6 8/8/2019 SE196385.100
% Moisture	%w/w	0.5	8.0	7.6	7.3	10	3.0

PARAMETER	UOM	LOR	TP117 SOIL 0.2-0.3 8/8/2019 SE196385.101	TP117 SOIL 0.5-0.6 8/8/2019 SE196385.102	TP118 SOIL 0.2-0.3 8/8/2019 SE196385.103	TP118 SOIL 0.5-0.6 8/8/2019 SE196385.104	TP119 SOIL 0.2-0.3 8/8/2019 SE196385.105
% Moisture	%w/w	0.5	6.2	14	6.6	6.6	4.8

Moisture Content [AN002] Tested: 15/8/2019 (continued)

PARAMETER	UOM	LOR	TP119 SOIL 0.5-0.6 8/8/2019 SE196385.106	TP120 SOIL 0.2-0.3 8/8/2019 SE196385.107	TP120 SOIL 0.5-0.6 8/8/2019 SE196385.108	TP121 SOIL 0.2-0.3 8/8/2019 SE196385.109	TP121 SOIL 0.5-0.6 8/8/2019 SE196385.110
% Moisture	%w/w	0.5	7.7	8.0	12	6.9	14

PARAMETER	UOM	LOR	TP122 SOIL 0.2-0.3 8/8/2019 SE196385.111	TP122 SOIL 0.5-0.6 8/8/2019 SE196385.112	TP123 SOIL 0.2-0.3 8/8/2019 SE196385.113	TP124 SOIL 0.2-0.3 8/8/2019 SE196385.114	TP124 SOIL 0.5-0.6 8/8/2019 SE196385.115
% Moisture	%w/w	0.5	4.5	11	2.9	7.2	5.2

PARAMETER	UOM	LOR	TP125 SOIL 0.2-0.3 8/8/2019 SE196385.116	TP125 SOIL 0.5-0.6 8/8/2019 SE196385.117
% Moisture	%w/w	0.5	7.2	11

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN106	Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos /cm or µS/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

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

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au.pv.sgsvr/en-gb/environment.

STATEMENT OF QA/QC PERFORMANCE

SE196385 R0

CLIENT DETAILS

Contact	Ram Ravi-Indran
Client	Geotechnique
Address	P.O. Box 880 NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	ram@geotech.com.au
Project	**8599/28 Elara Boulevard, Marsden Park**
Order Number	(Not specified)
Samples	117

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE196385 R0**
Date Received	12 Aug 2019
Date Reported	21 Aug 2019

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	Conductivity and TDS by Calculation - Soil	117 items
	pH in soil (1:5)	117 items
Analysis Date	Conductivity and TDS by Calculation - Soil	117 items
	Moisture Content	35 items
Duplicate	Conductivity and TDS by Calculation - Soil	2 items

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE196385 R0

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

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

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

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP64	SE196385.001	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP64	SE196385.002	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP65	SE196385.003	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP65	SE196385.004	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP66	SE196385.005	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP66	SE196385.006	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP67	SE196385.007	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP67	SE196385.008	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP68	SE196385.009	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP68	SE196385.010	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP69	SE196385.011	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP69	SE196385.012	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP70	SE196385.013	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP70	SE196385.014	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP71	SE196385.015	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP71	SE196385.016	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP72	SE196385.017	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP72	SE196385.018	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP73	SE196385.019	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP73	SE196385.020	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP74	SE196385.021	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP74	SE196385.022	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP75	SE196385.023	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP75	SE196385.024	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP76	SE196385.025	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP76	SE196385.026	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP77	SE196385.027	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP77	SE196385.028	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP78	SE196385.029	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP78	SE196385.030	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP79	SE196385.031	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP79	SE196385.032	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP80	SE196385.033	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP80	SE196385.034	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP81	SE196385.035	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP81	SE196385.036	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	20 Aug 2019†
TP82	SE196385.037	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP82	SE196385.038	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP83	SE196385.039	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP83	SE196385.040	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP84	SE196385.041	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP84	SE196385.042	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP85	SE196385.043	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP85	SE196385.044	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP86	SE196385.045	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP87	SE196385.046	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP88	SE196385.047	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP89	SE196385.048	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP89	SE196385.049	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP90	SE196385.050	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP90	SE196385.051	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP91	SE196385.052	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP91	SE196385.053	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP92	SE196385.054	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP92	SE196385.055	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP93	SE196385.056	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP93	SE196385.057	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP94	SE196385.058	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP95	SE196385.059	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP95	SE196385.060	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†

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

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

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

Conductivity and TDS by Calculation - Soil (continued)

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP96	SE196385.061	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP96	SE196385.062	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP97	SE196385.063	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP97	SE196385.064	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP98	SE196385.065	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP98	SE196385.066	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP99	SE196385.067	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP99	SE196385.068	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP100	SE196385.069	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP100	SE196385.070	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	14 Aug 2019	21 Aug 2019†
TP101	SE196385.071	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP101	SE196385.072	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP102	SE196385.073	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP102	SE196385.074	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP103	SE196385.075	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP103	SE196385.076	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP104	SE196385.077	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP104	SE196385.078	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP105	SE196385.079	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP105	SE196385.080	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP106	SE196385.081	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP106	SE196385.082	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP107	SE196385.083	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP108	SE196385.084	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP108	SE196385.085	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP109	SE196385.086	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP109	SE196385.087	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP110	SE196385.088	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP110	SE196385.089	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP111	SE196385.090	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP111	SE196385.091	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP112	SE196385.092	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP112	SE196385.093	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP113	SE196385.094	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP113	SE196385.095	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP114	SE196385.096	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP114	SE196385.097	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP115	SE196385.098	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP116	SE196385.099	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP116	SE196385.100	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP117	SE196385.101	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP117	SE196385.102	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP118	SE196385.103	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP118	SE196385.104	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP119	SE196385.105	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP119	SE196385.106	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP120	SE196385.107	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP120	SE196385.108	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP121	SE196385.109	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP121	SE196385.110	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP122	SE196385.111	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP122	SE196385.112	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP123	SE196385.113	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP124	SE196385.114	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP124	SE196385.115	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP125	SE196385.116	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†
TP125	SE196385.117	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	15 Aug 2019	21 Aug 2019†

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref

HOLDING TIME SUMMARY

SE196385 R0

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

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

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

Moisture Content (continued) — **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP64	SE196385.001	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP64	SE196385.002	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP65	SE196385.003	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP65	SE196385.004	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP66	SE196385.005	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP66	SE196385.006	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP67	SE196385.007	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP67	SE196385.008	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP68	SE196385.009	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP68	SE196385.010	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP69	SE196385.011	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP69	SE196385.012	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP70	SE196385.013	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP70	SE196385.014	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP71	SE196385.015	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP71	SE196385.016	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP72	SE196385.017	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP72	SE196385.018	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP73	SE196385.019	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP73	SE196385.020	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP74	SE196385.021	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP74	SE196385.022	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP75	SE196385.023	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP75	SE196385.024	LB181042	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP76	SE196385.025	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP76	SE196385.026	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP77	SE196385.027	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP77	SE196385.028	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP78	SE196385.029	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP78	SE196385.030	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP79	SE196385.031	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP79	SE196385.032	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP80	SE196385.033	LB181042	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP80	SE196385.034	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP81	SE196385.035	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP81	SE196385.036	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP82	SE196385.037	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP82	SE196385.038	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP83	SE196385.039	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP83	SE196385.040	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP84	SE196385.041	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP84	SE196385.042	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP85	SE196385.043	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP85	SE196385.044	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP86	SE196385.045	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP87	SE196385.046	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP88	SE196385.047	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP89	SE196385.048	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP89	SE196385.049	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP90	SE196385.050	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP90	SE196385.051	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP91	SE196385.052	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP91	SE196385.053	LB181043	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP92	SE196385.054	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP92	SE196385.055	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP93	SE196385.056	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP93	SE196385.057	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP94	SE196385.058	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP95	SE196385.059	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP95	SE196385.060	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019

HOLDING TIME SUMMARY

SE196385 R0

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

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

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

Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP96	SE196385.061	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP96	SE196385.062	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP97	SE196385.063	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP97	SE196385.064	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP98	SE196385.065	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP98	SE196385.066	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP99	SE196385.067	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP99	SE196385.068	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP100	SE196385.069	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP100	SE196385.070	LB181044	07 Aug 2019	12 Aug 2019	21 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP101	SE196385.071	LB181044	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP101	SE196385.072	LB181044	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP102	SE196385.073	LB181044	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP102	SE196385.074	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP103	SE196385.075	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP103	SE196385.076	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP104	SE196385.077	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP104	SE196385.078	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP105	SE196385.079	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP105	SE196385.080	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP106	SE196385.081	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP106	SE196385.082	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP107	SE196385.083	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP108	SE196385.084	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP108	SE196385.085	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP109	SE196385.086	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP109	SE196385.087	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP110	SE196385.088	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP110	SE196385.089	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP111	SE196385.090	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP111	SE196385.091	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP112	SE196385.092	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP112	SE196385.093	LB181045	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP113	SE196385.094	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP113	SE196385.095	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP114	SE196385.096	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP114	SE196385.097	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP115	SE196385.098	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP116	SE196385.099	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP116	SE196385.100	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP117	SE196385.101	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP117	SE196385.102	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP118	SE196385.103	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP118	SE196385.104	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP119	SE196385.105	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP119	SE196385.106	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP120	SE196385.107	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP120	SE196385.108	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP121	SE196385.109	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP121	SE196385.110	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP122	SE196385.111	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP122	SE196385.112	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP123	SE196385.113	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP124	SE196385.114	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP124	SE196385.115	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP125	SE196385.116	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP125	SE196385.117	LB181046	08 Aug 2019	12 Aug 2019	22 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref

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

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

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

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP64	SE196385.001	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP64	SE196385.002	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP65	SE196385.003	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP65	SE196385.004	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP66	SE196385.005	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP66	SE196385.006	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP67	SE196385.007	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP67	SE196385.008	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP68	SE196385.009	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP68	SE196385.010	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP69	SE196385.011	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP69	SE196385.012	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP70	SE196385.013	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP70	SE196385.014	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP71	SE196385.015	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP71	SE196385.016	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP72	SE196385.017	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP72	SE196385.018	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP73	SE196385.019	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP73	SE196385.020	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP74	SE196385.021	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP74	SE196385.022	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP75	SE196385.023	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP75	SE196385.024	LB181313	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP76	SE196385.025	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP76	SE196385.026	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP77	SE196385.027	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP77	SE196385.028	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP78	SE196385.029	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP78	SE196385.030	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP79	SE196385.031	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP79	SE196385.032	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP80	SE196385.033	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP80	SE196385.034	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP81	SE196385.035	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP81	SE196385.036	LB181313	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP82	SE196385.037	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP82	SE196385.038	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP83	SE196385.039	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP83	SE196385.040	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP84	SE196385.041	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP84	SE196385.042	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP85	SE196385.043	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP85	SE196385.044	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP86	SE196385.045	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP87	SE196385.046	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP88	SE196385.047	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP89	SE196385.048	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP89	SE196385.049	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP90	SE196385.050	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP90	SE196385.051	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP91	SE196385.052	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP91	SE196385.053	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP92	SE196385.054	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP92	SE196385.055	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP93	SE196385.056	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP93	SE196385.057	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP94	SE196385.058	LB181315	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP95	SE196385.059	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP95	SE196385.060	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019

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

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

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

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP96	SE196385.061	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP96	SE196385.062	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP97	SE196385.063	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP97	SE196385.064	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP98	SE196385.065	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP98	SE196385.066	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP99	SE196385.067	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP99	SE196385.068	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP100	SE196385.069	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP100	SE196385.070	LB181316	07 Aug 2019	12 Aug 2019	14 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP101	SE196385.071	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP101	SE196385.072	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP102	SE196385.073	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP102	SE196385.074	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP103	SE196385.075	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP103	SE196385.076	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP104	SE196385.077	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP104	SE196385.078	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP105	SE196385.079	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP105	SE196385.080	LB181316	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP106	SE196385.081	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP106	SE196385.082	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP107	SE196385.083	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP108	SE196385.084	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP108	SE196385.085	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP109	SE196385.086	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP109	SE196385.087	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP110	SE196385.088	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP110	SE196385.089	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP111	SE196385.090	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP111	SE196385.091	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP112	SE196385.092	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP112	SE196385.093	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP113	SE196385.094	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP113	SE196385.095	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP114	SE196385.096	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP114	SE196385.097	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP115	SE196385.098	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP116	SE196385.099	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP116	SE196385.100	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP117	SE196385.101	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP117	SE196385.102	LB181360	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP118	SE196385.103	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP118	SE196385.104	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP119	SE196385.105	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP119	SE196385.106	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP120	SE196385.107	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP120	SE196385.108	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP121	SE196385.109	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP121	SE196385.110	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP122	SE196385.111	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP122	SE196385.112	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP123	SE196385.113	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP124	SE196385.114	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP124	SE196385.115	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP125	SE196385.116	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP125	SE196385.117	LB181361	08 Aug 2019	12 Aug 2019	15 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019

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

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

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

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

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

Sample Number	Parameter	Units	LOR	Result
LB181312.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.48
LB181313.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181315.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181316.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.54
LB181360.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.1
LB181361.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196385.002	LB181312.014	Conductivity of Extract (1:5 as received)	µS/cm	1	210	190	31	8
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	240	21.851952461	31	8
SE196385.012	LB181312.025	Conductivity of Extract (1:5 as received)	µS/cm	1	370	320	31	15
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	410	53.374689564	31	15
SE196385.033	LB181313.033	Conductivity of Extract (1:5 as received)	µS/cm	1	420	423.5	30	0
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	450	50.388888888	30	0
SE196385.043	LB181315.032	Conductivity of Extract (1:5 as received)	µS/cm	1	330	349.94	31	4
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	360	73.929925484	31	4
SE196385.053	LB181315.033	Conductivity of Extract (1:5 as received)	µS/cm	1	810	724.75	30	11
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	970	74.846153846	30	11
SE196385.063	LB181316.032	Conductivity of Extract (1:5 as received)	µS/cm	1	210	204.3	31	1
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	220	20.330839416	31	1
SE196385.073	LB181316.033	Conductivity of Extract (1:5 as received)	µS/cm	1	32	33.4	36	3
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	35	36.578693181	36	3
SE196385.083	LB181360.032	Conductivity of Extract (1:5 as received)	µS/cm	1	77	129.7	32	50 ②
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	84	40.663180515	32	50 ②
SE196385.093	LB181360.033	Conductivity of Extract (1:5 as received)	µS/cm	1	80	62.88	33	24
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	90	70.954754098	32	24
SE196385.113	LB181361.021	Conductivity of Extract (1:5 as received)	µS/cm	1	71	63.5	33	11
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	73	65.370703764	33	11
SE196385.117	LB181361.020	Conductivity of Extract (1:5 as received)	µS/cm	1	160	150	31	6
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	180	66.700150375	31	6

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196385.002	LB181041.011	% Moisture	%w/w	0.5	13	12	38	5
SE196385.012	LB181041.022	% Moisture	%w/w	0.5	9.0	8.5	41	6
SE196385.013	LB181041.024	% Moisture	%w/w	0.5	12	15	37	17
SE196385.023	LB181042.011	% Moisture	%w/w	0.5	7.3	9.0	42	22
SE196385.033	LB181042.022	% Moisture	%w/w	0.5	6.0	3.7	51	47
SE196385.043	LB181043.011	% Moisture	%w/w	0.5	6.4	5.6	47	13
SE196385.053	LB181043.022	% Moisture	%w/w	0.5	17	16	36	5
SE196385.063	LB181044.011	% Moisture	%w/w	0.5	7.3	7.9	43	9
SE196385.083	LB181045.011	% Moisture	%w/w	0.5	7.8	8.0	43	3
SE196385.093	LB181045.022	% Moisture	%w/w	0.5	11	11	39	2
SE196385.113	LB181046.022	% Moisture	%w/w	0.5	2.9	4.0	59	32
SE196385.117	LB181046.027	% Moisture	%w/w	0.5	11	8.7	40	22

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196385.002	LB181312.014	pH	pH Units	0.1	5.4	5.3	32	3
SE196385.012	LB181312.025	pH	pH Units	0.1	5.4	5.3	32	1
SE196385.023	LB181313.032	pH	pH Units	0.1	5.6	5.754	32	3
SE196385.033	LB181313.033	pH	pH Units	0.1	8.6	8.494	31	1
SE196385.043	LB181315.032	pH	pH Units	0.1	7.5	7.668	31	2
SE196385.053	LB181315.033	pH	pH Units	0.1	5.2	5.107	32	2
SE196385.063	LB181316.032	pH	pH Units	0.1	5.3	5.399	32	2
SE196385.073	LB181316.033	pH	pH Units	0.1	5.4	5.417	32	0
SE196385.083	LB181360.032	pH	pH Units	0.1	5.7	5.534	32	3
SE196385.093	LB181360.033	pH	pH Units	0.1	5.1	5.408	32	6
SE196385.113	LB181361.021	pH	pH Units	0.1	5.7	5.629	32	1
SE196385.117	LB181361.020	pH	pH Units	0.1	5.4	5.4	32	1

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

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

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB181312.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	96
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	96
LB181313.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	95
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	95
LB181315.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	95
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	95
LB181316.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	95
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	95
LB181360.002	Conductivity of Extract (1:5 as received)	µS/cm	1	280	303	85 - 115	93
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	93
LB181361.002	Conductivity of Extract (1:5 as received)	µS/cm	1	270	303	85 - 115	91
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	91

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB181312.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181313.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181315.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181316.003	pH	pH Units	0.1	7.4	7.415	98 - 102	99
LB181360.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181361.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to Analytical Report comments for further information.

E-MAILED 9/8/19 @ 3.48pm

GEOTECHNIQUE PTY LTD

Laboratory Test Request / Chain of Custody Record

Lemko Place
PENRITH NSW 2750

P O Box 880
PENRITH NSW 2751

Tel: (02) 4722 2700
Fax: (02) 4722 6161
email: info@geotech.com.au

TO: SGS ENVIRONMENTAL SERVICES UNIT 16 33 MADDOX STREET ALEXANDRIA NSW	**Sampling Date:**	02/08/2019-09/08/2019	**Job No:** 8599/28
	Sampled By:	RR & NK	**Project:** Lot Classification
PH: 8594 0400 **FAX:** 8594 0499	**Project Manager:**	RR	**Location:** Elara Boulevard, Marsden Park
ATTN: Ms Emily Yin			

	Sampling details		Sample type		Results required by:									
	Location	Depth (m)	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP					KEEP SAMPLE
1	TP64	0.2-0.3	DSP		✓	✓								YES
2		0.5-0.6	DSP		✓	✓								YES
3	TP65	0.2-0.3	DSP		✓	✓								YES
4		0.5-0.6	DSP		✓	✓								YES
5	TP66	0.2-0.3	DSP		✓	✓								YES
6		0.5-0.6	DSP		✓	✓								YES
7	TP67	0.2-0.3	DSP		✓	✓								YES
8		0.5-0.6	DSP		✓	✓								YES
9	TP68	0.2-0.3	DSP		✓	✓								YES
10		0.5-0.6	DSP		✓	✓								YES
11	TP69	0.2-0.3	DSP		✓	✓								YES
12		0.5-0.6	DSP		✓	✓								YES
13	TP70	0.2-0.3	DSP		✓	✓								YES
14		0.5-0.6	DSP		✓	✓								YES
15	TP71	0.2-0.3	DSP		✓	✓								YES
16		0.5-0.6	DSP		✓	✓								YES
17	TP72	0.2-0.3	DSP		✓	✓								YES
18		0.5-0.6	DSP		✓	✓								YES
19	TP73	0.2-0.3	DSP		✓	✓								YES
20		0.5-0.6	DSP		✓	✓								YES
21	TP74	0.2-0.3	DSP		✓	✓								YES
22		0.5-0.6	DSP		✓	✓								YES
23	TP75	0.2-0.3	DSP		✓	✓								YES
24		0.5-0.6	DSP		✓	✓								YES
25	TP76	0.2-0.3	DSP		✓	✓								YES

SGS EHS Alexandria Laboratory

SE196385 COC
Received: 12 – Aug – 2019

26	0.5-0.6	DSP		✓	✓									YES
TP77 27	0.2-0.3	DSP		✓	✓									YES
28	0.5-0.6	DSP		✓	✓									YES
TP78 29	0.2-0.3	DSP		✓	✓									YES
30	0.5-0.6	DSP		✓	✓									YES
TP79 31	0.2-0.3	DSP		✓	✓									YES
32	0.5-0.6	DSP		✓	✓									YES
TP80 33	0.2-0.3	DSP		✓	✓									YES
34	0.5-0.6	DSP		✓	✓									YES
TP81 35	0.2-0.3	DSP		✓	✓									YES
36	0.5-0.6	DSP		✓	✓									YES
TP82 37	0.2-0.3	DSP		✓	✓									YES
38	0.5-0.6	DSP		✓	✓									YES
TP83 39	0.2-0.3	DSP		✓	✓									YES
40	0.5-0.6	DSP		✓	✓									YES
TP84 41	0.2-0.3	DSP		✓	✓									YES
42	0.5-0.6	DSP		✓	✓									YES
TP85 43	0.2-0.3	DSP		✓	✓									YES
44	0.5-0.6	DSP		✓	✓									YES
TP86 45	0.2-0.3	DSP		✓	✓									YES
•	0.5-0.6	DSP		✓	✓									YES
TP87 46	0.2-0.3	DSP		✓	✓									YES
•	0.5-0.6	DSP		✓	✓									YES
TP88 47	0.2-0.3	DSP		✓	✓									YES
•	0.5-0.6	DSP		✓	✓									YES
TP89 48	0.2-0.3	DSP		✓	✓									YES
49	0.5-0.6	DSP		✓	✓									YES
TP90 50	0.2-0.3	DSP		✓	✓									YES
51	0.5-0.6	DSP		✓	✓									YES
TP91 52	0.2-0.3	DSP		✓	✓									YES
53	0.5-0.6	DSP		✓	✓									YES
TP92 54	0.2-0.3	DSP		✓	✓									YES
55	0.5-0.6	DSP		✓	✓									YES
TP93 56	0.2-0.3	DSP		✓	✓									YES
57	0.5-0.6	DSP		✓	✓									YES
TP94 58	0.2-0.3	DSP		✓	✓									YES
•	0.5-0.6	DSP		✓	✓									YES
TP95 59	0.2-0.3	DSP		✓	✓									YES
60	0.5-0.6	DSP		✓	✓									YES
TP96 61	0.2-0.3	DSP		✓	✓									YES
62	0.5-0.6	DSP		✓	✓									YES
TP97 63	0.2-0.3	DSP		✓	✓									YES
64	0.5-0.6	DSP		✓	✓									YES
TP98 65	0.2-0.3	DSP		✓	✓									YES
66	0.5-0.6	DSP		✓	✓									YES

TP99	67	0.2-0.3	DSP		✓	✓									YES
	68	0.5-0.6	DSP		✓	✓									YES
TP100	69	0.2-0.3	DSP		✓	✓									YES
	70	0.5-0.6	DSP		✓	✓									YES
TP101	71	0.2-0.3	DSP		✓	✓									YES
	72	0.5-0.6	DSP		✓	✓									YES
TP102	73	0.2-0.3	DSP		✓	✓									YES
	74	0.5-0.6	DSP		✓	✓									YES
TP103	75	0.2-0.3	DSP		✓	✓									YES
	76	0.5-0.6	DSP		✓	✓									YES
TP104	77	0.2-0.3	DSP		✓	✓									YES
	78	0.5-0.6	DSP		✓	✓									YES
TP105	79	0.2-0.3	DSP		✓	✓									YES
	80	0.5-0.6	DSP		✓	✓									YES
TP106	81	0.2-0.3	DSP		✓	✓									YES
	82	0.5-0.6	DSP		✓	✓									YES
TP107	83	0.2-0.3	DSP		✓	✓									YES
		0.5-0.6	DSP		✓	✓									YES
TP108	84	0.2-0.3	DSP		✓	✓									YES
	85	0.5-0.6	DSP		✓	✓									YES
TP109	86	0.2-0.3	DSP		✓	✓									YES
	87	0.5-0.6	DSP		✓	✓									YES
TP110	88	0.2-0.3	DSP		✓	✓									YES
	89	0.5-0.6	DSP		✓	✓									YES
TP111	90	0.2-0.3	DSP		✓	✓									YES
	91	0.5-0.6	DSP		✓	✓									YES
TP112	92	0.2-0.3	DSP		✓	✓									YES
	93	0.5-0.6	DSP		✓	✓									YES
TP113	94	0.2-0.3	DSP		✓	✓									YES
	95	0.5-0.6	DSP		✓	✓									YES
TP114	96	0.2-0.3	DSP		✓	✓									YES
	97	0.5-0.6	DSP		✓	✓									YES
TP115	98	0.2-0.3	DSP		✓	✓									YES
		0.5-0.6	DSP		✓	✓									YES
TP116	99	0.2-0.3	DSP		✓	✓									YES
	100	0.5-0.6	DSP		✓	✓									YES
TP117	101	0.2-0.3	DSP		✓	✓									YES
	102	0.5-0.6	DSP		✓	✓									YES
TP118	103	0.2-0.3	DSP		✓	✓									YES
	104	0.5-0.6	DSP		✓	✓									YES
TP119	105	0.2-0.3	DSP		✓	✓									YES
	106	0.5-0.6	DSP		✓	✓									YES
TP120	107	0.2-0.3	DSP		✓	✓									YES
	108	0.5-0.6	DSP		✓	✓									YES
TP121	109	0.2-0.3	DSP		✓	✓									YES

	116	0.5-0.6	DSP		✓	✓								YES
TP122	111	0.2-0.3	DSP		✓	✓								YES
	112	0.5-0.6	DSP		✓	✓								YES
TP123	113	0.2-0.3	DSP		✓	✓								YES
		0.5-0.6	DSP		✓	✓								YES
TP124	114	0.2-0.3	DSP		✓	✓								YES
	115	0.5-0.6	DSP		✓	✓								YES
TP125	116	0.2-0.3	DSP		✓	✓								YES
	117	0.5-0.6	DSP		✓	✓								YES

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	Date
Raja	NK	9/08/2019	J.L	J.L	12/8/19 2pm

WG	Water sample, glass bottle	USG	Undisturbed soil sample	DSP	Disturbed soil sample (small plastic bag)	* Purge & Trap	@ mole H^+/tonne
WP	Water sample, plastic bottle	DSG	Disturbed soil sample (gl	✓	Test required	# Geotechnique Screen	

SAMPLE RECEIPT ADVICE

SE196385

CLIENT DETAILS

Contact	Ram Ravi-Indran
Client	Geotechnique
Address	P.O. Box 880 NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	ram@geotech.com.au
Project	**8599/28 Elara Boulevard, Marsden Park**
Order Number	(Not specified)
Samples	117

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Mon 12/8/2019
Report Due	Wed 21/8/2019
SGS Reference	**SE196385**

SUBMISSION DETAILS

This is to confirm that 117 samples were received on Monday 12/8/2019. Results are expected to be ready by COB Wednesday 21/8/2019.
Please quote SGS reference SE196385 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	Client	Sample cooling method	None
Samples received in correct containers	Yes	Sample counts by matrix	117 Soil
Date documentation received	09/08/19 @ 03:48pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	N/A
Sample temperature upon receipt	16.8°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

COMMENTS

Samples with "red dots" not received.

SAMPLE RECEIPT ADVICE

SE196385

CLIENT DETAILS

Client Geotechnique

Project 8599/28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
001	TP64 0.2-0.3	2	1	1
002	TP64 0.5-0.6	2	1	1
003	TP65 0.2-0.3	2	1	1
004	TP65 0.5-0.6	2	1	1
005	TP66 0.2-0.3	2	1	1
006	TP66 0.5-0.6	2	1	1
007	TP67 0.2-0.3	2	1	1
008	TP67 0.5-0.6	2	1	1
009	TP68 0.2-0.3	2	1	1
010	TP68 0.5-0.6	2	1	1
011	TP69 0.2-0.3	2	1	1
012	TP69 0.5-0.6	2	1	1
013	TP70 0.2-0.3	2	1	1
014	TP70 0.5-0.6	2	1	1
015	TP71 0.2-0.3	2	1	1
016	TP71 0.5-0.6	2	1	1
017	TP72 0.2-0.3	2	1	1
018	TP72 0.5-0.6	2	1	1
019	TP73 0.2-0.3	2	1	1
020	TP73 0.5-0.6	2	1	1
021	TP74 0.2-0.3	2	1	1
022	TP74 0.5-0.6	2	1	1
023	TP75 0.2-0.3	2	1	1
024	TP75 0.5-0.6	2	1	1

CONTINUED OVERLEAF

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

SAMPLE RECEIPT ADVICE

SE196385

CLIENT DETAILS

Client Geotechnique

Project 8599/28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
025	TP76 0.2-0.3	2	1	1
026	TP76 0.5-0.6	2	1	1
027	TP77 0.2-0.3	2	1	1
028	TP77 0.5-0.6	2	1	1
029	TP78 0.2-0.3	2	1	1
030	TP78 0.5-0.6	2	1	1
031	TP79 0.2-0.3	2	1	1
032	TP79 0.5-0.6	2	1	1
033	TP80 0.2-0.3	2	1	1
034	TP80 0.5-0.6	2	1	1
035	TP81 0.2-0.3	2	1	1
036	TP81 0.5-0.6	2	1	1
037	TP82 0.2-0.3	2	1	1
038	TP82 0.5-0.6	2	1	1
039	TP83 0.2-0.3	2	1	1
040	TP83 0.5-0.6	2	1	1
041	TP84 0.2-0.3	2	1	1
042	TP84 0.5-0.6	2	1	1
043	TP85 0.2-0.3	2	1	1
044	TP85 0.5-0.6	2	1	1
045	TP86 0.2-0.3	2	1	1
046	TP87 0.2-0.3	2	1	1
047	TP88 0.2-0.3	2	1	1
048	TP89 0.2-0.3	2	1	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE196385

CLIENT DETAILS

Client Geotechnique

Project 8599/28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
049	TP89 0.5-0.6	2	1	1
050	TP90 0.2-0.3	2	1	1
051	TP90 0.5-0.6	2	1	1
052	TP91 0.2-0.3	2	1	1
053	TP91 0.5-0.6	2	1	1
054	TP92 0.2-0.3	2	1	1
055	TP92 0.5-0.6	2	1	1
056	TP93 0.2-0.3	2	1	1
057	TP93 0.5-0.6	2	1	1
058	TP94 0.2-0.3	2	1	1
059	TP95 0.2-0.3	2	1	1
060	TP95 0.5-0.6	2	1	1
061	TP96 0.2-0.3	2	1	1
062	TP96 0.5-0.6	2	1	1
063	TP97 0.2-0.3	2	1	1
064	TP97 0.5-0.6	2	1	1
065	TP98 0.2-0.3	2	1	1
066	TP98 0.5-0.6	2	1	1
067	TP99 0.2-0.3	2	1	1
068	TP99 0.5-0.6	2	1	1
069	TP100 0.2-0.3	2	1	1
070	TP100 0.5-0.6	2	1	1
071	TP101 0.2-0.3	2	1	1
072	TP101 0.5-0.6	2	1	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE196385

CLIENT DETAILS

Client Geotechnique

Project 8599/28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
073	TP102 0.2-0.3	2	1	1
074	TP102 0.5-0.6	2	1	1
075	TP103 0.2-0.3	2	1	1
076	TP103 0.5-0.6	2	1	1
077	TP104 0.2-0.3	2	1	1
078	TP104 0.5-0.6	2	1	1
079	TP105 0.2-0.3	2	1	1
080	TP105 0.5-0.6	2	1	1
081	TP106 0.2-0.3	2	1	1
082	TP106 0.5-0.6	2	1	1
083	TP107 0.2-0.3	2	1	1
084	TP108 0.2-0.3	2	1	1
085	TP108 0.5-0.6	2	1	1
086	TP109 0.2-0.3	2	1	1
087	TP109 0.5-0.6	2	1	1
088	TP110 0.2-0.3	2	1	1
089	TP110 0.5-0.6	2	1	1
090	TP111 0.2-0.3	2	1	1
091	TP111 0.5-0.6	2	1	1
092	TP112 0.2-0.3	2	1	1
093	TP112 0.5-0.6	2	1	1
094	TP113 0.2-0.3	2	1	1
095	TP113 0.5-0.6	2	1	1
096	TP114 0.2-0.3	2	1	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE196385

CLIENT DETAILS

Client Geotechnique

Project 8599/28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
097	TP114 0.5-0.6	2	1	1
098	TP115 0.2-0.3	2	1	1
099	TP116 0.2-0.3	2	1	1
100	TP116 0.5-0.6	2	1	1
101	TP117 0.2-0.3	2	1	1
102	TP117 0.5-0.6	2	1	1
103	TP118 0.2-0.3	2	1	1
104	TP118 0.5-0.6	2	1	1
105	TP119 0.2-0.3	2	1	1
106	TP119 0.5-0.6	2	1	1
107	TP120 0.2-0.3	2	1	1
108	TP120 0.5-0.6	2	1	1
109	TP121 0.2-0.3	2	1	1
110	TP121 0.5-0.6	2	1	1
111	TP122 0.2-0.3	2	1	1
112	TP122 0.5-0.6	2	1	1
113	TP123 0.2-0.3	2	1	1
114	TP124 0.2-0.3	2	1	1
115	TP124 0.5-0.6	2	1	1
116	TP125 0.2-0.3	2	1	1
117	TP125 0.5-0.6	2	1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Ram Ravi-Indran
Client	Geotechnique
Address	P.O. Box 880 NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	ram@geotech.com.au
Project	**8599-28 Elara Boulevard, Marsden Park**
Order Number	(Not specified)
Samples	125

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE196386 R0**
Date Received	12/8/2019
Date Reported	21/8/2019

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

SIGNATORIES

Dong Liang
Metals/Inorganics Team Leader

Shane McDermott
Inorganic/Metals Chemist

pH in soil (1:5) [AN101] Tested: 16/8/2019

PARAMETER	UOM	LOR	TP1 SOIL 0.2-0.3 2/8/2019 SE196386.001	TP1 SOIL 0.7-0.8 2/8/2019 SE196386.002	TP2 SOIL 0.2-0.3 2/8/2019 SE196386.003	TP4 SOIL 0.2-0.3 2/8/2019 SE196386.007	TP4 SOIL 0.7-0.8 2/8/2019 SE196386.008
pH	pH Units	0.1	6.4	7.1	5.8	4.8	4.7

PARAMETER	UOM	LOR	TP5 SOIL 0.2-0.3 2/8/2019 SE196386.009	TP6 SOIL 0.2-0.3 2/8/2019 SE196386.011	TP6 SOIL 0.7-0.8 2/8/2019 SE196386.012	TP7 SOIL 0.2-0.3 2/8/2019 SE196386.013	TP7 SOIL 0.7-0.8 2/8/2019 SE196386.014
pH	pH Units	0.1	5.6	5.6	4.6	4.8	4.6

PARAMETER	UOM	LOR	TP8 SOIL 0.2-0.3 2/8/2019 SE196386.015	TP8 SOIL 0.7-0.8 2/8/2019 SE196386.016	TP9 SOIL 0.2-0.3 2/8/2019 SE196386.017	TP9 SOIL 0.7-0.8 2/8/2019 SE196386.018	TP10 SOIL 0.2-0.3 2/8/2019 SE196386.019
pH	pH Units	0.1	5.2	5.4	6.3	5.1	5.0

PARAMETER	UOM	LOR	TP10 SOIL 0.7-0.8 2/8/2019 SE196386.020	TP11 SOIL 0.2-0.3 2/8/2019 SE196386.021	TP11 SOIL 0.7-0.8 2/8/2019 SE196386.022	TP12 SOIL 0.2-0.3 2/8/2019 SE196386.023	TP12 SOIL 0.7-0.8 2/8/2019 SE196386.024
pH	pH Units	0.1	6.1	5.5	5.6	5.6	5.1

PARAMETER	UOM	LOR	TP13 SOIL 0.2-0.3 2/8/2019 SE196386.025	TP13 SOIL 0.7-0.8 2/8/2019 SE196386.026	TP14 SOIL 0.2-0.3 2/8/2019 SE196386.027	TP14 SOIL 0.7-0.8 2/8/2019 SE196386.028	TP15 SOIL 0.2-0.3 2/8/2019 SE196386.029
pH	pH Units	0.1	4.9	5.2	4.9	5.1	4.9

PARAMETER	UOM	LOR	TP15 SOIL 0.7-0.8 2/8/2019 SE196386.030	TP16 SOIL 0.2-0.3 2/8/2019 SE196386.031	TP16 SOIL 0.7-0.8 2/8/2019 SE196386.032	TP17 SOIL 0.2-0.3 2/8/2019 SE196386.033	TP17 SOIL 0.7-0.8 2/8/2019 SE196386.034
pH	pH Units	0.1	5.0	5.2	5.2	5.0	5.9

PARAMETER	UOM	LOR	TP18 SOIL 0.2-0.3 2/8/2019 SE196386.035	TP18 SOIL 0.7-0.8 2/8/2019 SE196386.036	TP19 SOIL 0.2-0.3 2/8/2019 SE196386.037	TP19 SOIL 0.7-0.8 2/8/2019 SE196386.038	TP20 SOIL 0.2-0.3 2/8/2019 SE196386.039
pH	pH Units	0.1	5.3	5.2	4.7	4.9	4.9

pH in soil (1:5) [AN101] Tested: 16/8/2019 (continued)

PARAMETER	UOM	LOR	TP20 SOIL 0.7-0.8 2/8/2019 SE196386.040	TP21 SOIL 0.2-0.3 2/8/2019 SE196386.041	TP21 SOIL 0.7-0.8 2/8/2019 SE196386.042	TP22 SOIL 0.2-0.3 2/8/2019 SE196386.043	TP22 SOIL 0.7-0.8 2/8/2019 SE196386.044
pH	pH Units	0.1	4.7	4.6	5.0	5.0	4.8

PARAMETER	UOM	LOR	TP23 SOIL 0.2-0.3 2/8/2019 SE196386.045	TP23 SOIL 0.7-0.8 2/8/2019 SE196386.046	TP24 SOIL 0.2-0.3 2/8/2019 SE196386.047	TP24 SOIL 0.7-0.8 2/8/2019 SE196386.048	TP25 SOIL 0.2-0.3 2/8/2019 SE196386.049
pH	pH Units	0.1	5.0	5.0	5.5	5.2	5.0

PARAMETER	UOM	LOR	TP25 SOIL 0.7-0.8 2/8/2019 SE196386.050	TP26 SOIL 0.2-0.3 5/8/2019 SE196386.051	TP26 SOIL 0.7-0.8 5/8/2019 SE196386.052	TP27 SOIL 0.2-0.3 5/8/2019 SE196386.053	TP27 SOIL 0.7-0.8 5/8/2019 SE196386.054
pH	pH Units	0.1	5.2	5.3	5.6	5.8	5.2

PARAMETER	UOM	LOR	TP28 SOIL 0.2-0.3 5/8/2019 SE196386.055	TP28 SOIL 0.7-0.8 5/8/2019 SE196386.056	TP29 SOIL 0.2-0.3 5/8/2019 SE196386.057	TP29 SOIL 0.7-0.8 5/8/2019 SE196386.058	TP30 SOIL 0.2-0.3 5/8/2019 SE196386.059
pH	pH Units	0.1	4.7	4.8	5.1	5.2	5.1

PARAMETER	UOM	LOR	TP30 SOIL 0.7-0.8 5/8/2019 SE196386.060	TP31 SOIL 0.2-0.3 5/8/2019 SE196386.061	TP31 SOIL 0.7-0.8 5/8/2019 SE196386.062	TP32 SOIL 0.2-0.3 5/8/2019 SE196386.063	TP32 SOIL 0.7-0.8 5/8/2019 SE196386.064
pH	pH Units	0.1	4.7	4.4	4.5	5.0	5.5

PARAMETER	UOM	LOR	TP33 SOIL 0.2-0.3 5/8/2019 SE196386.065	TP33 SOIL 0.7-0.8 5/8/2019 SE196386.066	TP34 SOIL 0.2-0.3 5/8/2019 SE196386.067	TP34 SOIL 0.7-0.8 5/8/2019 SE196386.068	TP35 SOIL 0.2-0.3 5/8/2019 SE196386.069
pH	pH Units	0.1	4.8	4.9	4.7	5.0	5.5

PARAMETER	UOM	LOR	TP35 SOIL 0.5-0.6 5/8/2019 SE196386.070	TP36 SOIL 0.2-0.3 5/8/2019 SE196386.071	TP36 SOIL 0.5-0.6 5/8/2019 SE196386.072	TP37 SOIL 0.2-0.3 5/8/2019 SE196386.073	TP37 SOIL 0.5-0.6 5/8/2019 SE196386.074
pH	pH Units	0.1	5.9	5.0	5.6	5.5	5.2

pH in soil (1:5) [AN101] Tested: 16/8/2019 (continued)

PARAMETER	UOM	LOR	TP38 SOIL 0.2-0.3 5/8/2019 SE196386.075	TP38 SOIL 0.5-0.6 5/8/2019 SE196386.076	TP39 SOIL 0.2-0.3 5/8/2019 SE196386.077	TP39 SOIL 0.5-0.6 5/8/2019 SE196386.078	TP40 SOIL 0.2-0.3 5/8/2019 SE196386.079
pH	pH Units	0.1	5.4	5.0	5.6	5.4	5.4

PARAMETER	UOM	LOR	TP40 SOIL 0.5-0.6 5/8/2019 SE196386.080	TP41 SOIL 0.2-0.3 5/8/2019 SE196386.081	TP41 SOIL 0.5-0.6 5/8/2019 SE196386.082	TP42 SOIL 0.2-0.3 5/8/2019 SE196386.083	TP42 SOIL 0.5-0.6 5/8/2019 SE196386.084
pH	pH Units	0.1	5.0	5.5	5.8	5.4	5.2

PARAMETER	UOM	LOR	TP43 SOIL 0.2-0.3 5/8/2019 SE196386.085	TP43 SOIL 0.5-0.6 5/8/2019 SE196386.086	TP44 SOIL 0.2-0.3 5/8/2019 SE196386.087	TP44 SOIL 0.5-0.6 5/8/2019 SE196386.088	TP45 SOIL 0.2-0.3 5/8/2019 SE196386.089
pH	pH Units	0.1	5.9	5.2	7.6	5.3	5.2

PARAMETER	UOM	LOR	TP45 SOIL 0.5-0.6 5/8/2019 SE196386.090	TP46 SOIL 0.2-0.3 5/8/2019 SE196386.091	TP46 SOIL 0.5-0.6 5/8/2019 SE196386.092	TP47 SOIL 0.2-0.3 5/8/2019 SE196386.093	TP47 SOIL 0.5-0.6 5/8/2019 SE196386.094
pH	pH Units	0.1	4.8	5.8	5.0	5.7	4.9

PARAMETER	UOM	LOR	TP48 SOIL 0.2-0.3 5/8/2019 SE196386.095	TP48 SOIL 0.5-0.6 5/8/2019 SE196386.096	TP49 SOIL 0.2-0.3 5/8/2019 SE196386.097	TP50 SOIL 0.2-0.3 5/8/2019 SE196386.098	TP50 SOIL 0.5-0.6 5/8/2019 SE196386.099
pH	pH Units	0.1	5.4	4.9	5.2	5.2	5.0

PARAMETER	UOM	LOR	TP51 SOIL 0.2-0.3 6/8/2019 SE196386.100	TP51 SOIL 0.5-0.6 6/8/2019 SE196386.101	TP52 SOIL 0.2-0.3 6/8/2019 SE196386.102	TP52 SOIL 0.5-0.6 6/8/2019 SE196386.103	TP53 SOIL 0.2-0.3 6/8/2019 SE196386.104
pH	pH Units	0.1	5.0	5.5	5.0	5.4	4.7

PARAMETER	UOM	LOR	TP53 SOIL 0.5-0.6 6/8/2019 SE196386.105	TP54 SOIL 0.2-0.3 6/8/2019 SE196386.106	TP54 SOIL 0.5-0.6 6/8/2019 SE196386.107	TP55 SOIL 0.2-0.3 6/8/2019 SE196386.108	TP55 SOIL 0.5-0.6 6/8/2019 SE196386.109
pH	pH Units	0.1	5.0	4.5	5.4	5.0	5.3

pH in soil (1:5) [AN101] Tested: 16/8/2019 (continued)

PARAMETER	UOM	LOR	TP56 SOIL 0.2-0.3 6/8/2019 SE196386.110	TP56 SOIL 0.5-0.6 6/8/2019 SE196386.111	TP57 SOIL 0.2-0.3 6/8/2019 SE196386.112	TP57 SOIL 0.5-0.6 6/8/2019 SE196386.113	TP58 SOIL 0.2-0.3 6/8/2019 SE196386.114
pH	pH Units	0.1	5.9	5.0	5.6	4.9	5.3

PARAMETER	UOM	LOR	TP59 SOIL 0.5-0.6 6/8/2019 SE196386.115	TP59 SOIL 0.2-0.3 6/8/2019 SE196386.116	TP58 SOIL 0.5-0.6 6/8/2019 SE196386.117	TP60 SOIL 0.2-0.3 6/8/2019 SE196386.118	TP60 SOIL 0.5-0.6 6/8/2019 SE196386.119
pH	pH Units	0.1	5.2	5.0	5.0	6.4	5.1

PARAMETER	UOM	LOR	TP61 SOIL 0.2-0.3 6/8/2019 SE196386.120	TP61 SOIL 0.5-0.6 6/8/2019 SE196386.121	TP62 SOIL 0.2-0.3 6/8/2019 SE196386.122	TP62 SOIL 0.5-0.6 6/8/2019 SE196386.123	TP63 SOIL 0.2-0.3 6/8/2019 SE196386.124
pH	pH Units	0.1	5.6	4.9	5.5	4.9	5.3

PARAMETER	UOM	LOR	TP63 SOIL 0.5-0.6 6/8/2019 SE196386.125
pH	pH Units	0.1	5.3

Conductivity and TDS by Calculation - Soil [AN106] Tested: 16/8/2019

PARAMETER	UOM	LOR	TP1 SOIL 0.2-0.3 2/8/2019 SE196386.001	TP1 SOIL 0.7-0.8 2/8/2019 SE196386.002	TP2 SOIL 0.2-0.3 2/8/2019 SE196386.003	TP4 SOIL 0.2-0.3 2/8/2019 SE196386.007	TP4 SOIL 0.7-0.8 2/8/2019 SE196386.008
Conductivity of Extract (1:5 as received)	µS/cm	1	220	370	450	530	580
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	240	460	500	650	700

PARAMETER	UOM	LOR	TP5 SOIL 0.2-0.3 2/8/2019 SE196386.009	TP6 SOIL 0.2-0.3 2/8/2019 SE196386.011	TP6 SOIL 0.7-0.8 2/8/2019 SE196386.012	TP7 SOIL 0.2-0.3 2/8/2019 SE196386.013	TP7 SOIL 0.7-0.8 2/8/2019 SE196386.014
Conductivity of Extract (1:5 as received)	µS/cm	1	210	320	260	460	430
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	240	360	320	570	1900

PARAMETER	UOM	LOR	TP8 SOIL 0.2-0.3 2/8/2019 SE196386.015	TP8 SOIL 0.7-0.8 2/8/2019 SE196386.016	TP9 SOIL 0.2-0.3 2/8/2019 SE196386.017	TP9 SOIL 0.7-0.8 2/8/2019 SE196386.018	TP10 SOIL 0.2-0.3 2/8/2019 SE196386.019
Conductivity of Extract (1:5 as received)	µS/cm	1	290	170	410	250	400
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	360	210	520	310	470

PARAMETER	UOM	LOR	TP10 SOIL 0.7-0.8 2/8/2019 SE196386.020	TP11 SOIL 0.2-0.3 2/8/2019 SE196386.021	TP11 SOIL 0.7-0.8 2/8/2019 SE196386.022	TP12 SOIL 0.2-0.3 2/8/2019 SE196386.023	TP12 SOIL 0.7-0.8 2/8/2019 SE196386.024
Conductivity of Extract (1:5 as received)	µS/cm	1	190	310	270	150	190
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	230	350	310	180	230

PARAMETER	UOM	LOR	TP13 SOIL 0.2-0.3 2/8/2019 SE196386.025	TP13 SOIL 0.7-0.8 2/8/2019 SE196386.026	TP14 SOIL 0.2-0.3 2/8/2019 SE196386.027	TP14 SOIL 0.7-0.8 2/8/2019 SE196386.028	TP15 SOIL 0.2-0.3 2/8/2019 SE196386.029
Conductivity of Extract (1:5 as received)	µS/cm	1	410	370	570	470	340
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	510	440	710	570	420

PARAMETER	UOM	LOR	TP15 SOIL 0.7-0.8 2/8/2019 SE196386.030	TP16 SOIL 0.2-0.3 2/8/2019 SE196386.031	TP16 SOIL 0.7-0.8 2/8/2019 SE196386.032	TP17 SOIL 0.2-0.3 2/8/2019 SE196386.033	TP17 SOIL 0.7-0.8 2/8/2019 SE196386.034
Conductivity of Extract (1:5 as received)	µS/cm	1	530	300	360	440	80
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	670	370	480	510	96

PARAMETER	UOM	LOR	TP18 SOIL 0.2-0.3 2/8/2019 SE196386.035	TP18 SOIL 0.7-0.8 2/8/2019 SE196386.036	TP19 SOIL 0.2-0.3 2/8/2019 SE196386.037	TP19 SOIL 0.7-0.8 2/8/2019 SE196386.038	TP20 SOIL 0.2-0.3 2/8/2019 SE196386.039
Conductivity of Extract (1:5 as received)	µS/cm	1	430	220	250	79	630
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	250	280	87	760

Conductivity and TDS by Calculation - Soil [AN106] Tested: 16/8/2019 (continued)

PARAMETER	UOM	LOR	TP20 SOIL 0.7-0.8 2/8/2019 SE196386.040	TP21 SOIL 0.2-0.3 2/8/2019 SE196386.041	TP21 SOIL 0.7-0.8 2/8/2019 SE196386.042	TP22 SOIL 0.2-0.3 2/8/2019 SE196386.043	TP22 SOIL 0.7-0.8 2/8/2019 SE196386.044
Conductivity of Extract (1:5 as received)	µS/cm	1	560	450	700	410	390
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	670	560	850	470	490

PARAMETER	UOM	LOR	TP23 SOIL 0.2-0.3 2/8/2019 SE196386.045	TP23 SOIL 0.7-0.8 2/8/2019 SE196386.046	TP24 SOIL 0.2-0.3 2/8/2019 SE196386.047	TP24 SOIL 0.7-0.8 2/8/2019 SE196386.048	TP25 SOIL 0.2-0.3 2/8/2019 SE196386.049
Conductivity of Extract (1:5 as received)	µS/cm	1	160	98	200	480	220
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	190	120	230	620	260

PARAMETER	UOM	LOR	TP25 SOIL 0.7-0.8 2/8/2019 SE196386.050	TP26 SOIL 0.2-0.3 5/8/2019 SE196386.051	TP26 SOIL 0.7-0.8 5/8/2019 SE196386.052	TP27 SOIL 0.2-0.3 5/8/2019 SE196386.053	TP27 SOIL 0.7-0.8 5/8/2019 SE196386.054
Conductivity of Extract (1:5 as received)	µS/cm	1	360	200	260	220	340
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	400	220	310	250	400

PARAMETER	UOM	LOR	TP28 SOIL 0.2-0.3 5/8/2019 SE196386.055	TP28 SOIL 0.7-0.8 5/8/2019 SE196386.056	TP29 SOIL 0.2-0.3 5/8/2019 SE196386.057	TP29 SOIL 0.7-0.8 5/8/2019 SE196386.058	TP30 SOIL 0.2-0.3 5/8/2019 SE196386.059
Conductivity of Extract (1:5 as received)	µS/cm	1	400	480	290	260	470
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	580	350	320	590

PARAMETER	UOM	LOR	TP30 SOIL 0.7-0.8 5/8/2019 SE196386.060	TP31 SOIL 0.2-0.3 5/8/2019 SE196386.061	TP31 SOIL 0.7-0.8 5/8/2019 SE196386.062	TP32 SOIL 0.2-0.3 5/8/2019 SE196386.063	TP32 SOIL 0.7-0.8 5/8/2019 SE196386.064
Conductivity of Extract (1:5 as received)	µS/cm	1	630	370	460	490	600
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	780	440	570	580	750

PARAMETER	UOM	LOR	TP33 SOIL 0.2-0.3 5/8/2019 SE196386.065	TP33 SOIL 0.7-0.8 5/8/2019 SE196386.066	TP34 SOIL 0.2-0.3 5/8/2019 SE196386.067	TP34 SOIL 0.7-0.8 5/8/2019 SE196386.068	TP35 SOIL 0.2-0.3 5/8/2019 SE196386.069
Conductivity of Extract (1:5 as received)	µS/cm	1	470	370	710	390	150
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	610	470	860	440	180

PARAMETER	UOM	LOR	TP35 SOIL 0.5-0.6 5/8/2019 SE196386.070	TP36 SOIL 0.2-0.3 5/8/2019 SE196386.071	TP36 SOIL 0.5-0.6 5/8/2019 SE196386.072	TP37 SOIL 0.2-0.3 5/8/2019 SE196386.073	TP37 SOIL 0.5-0.6 5/8/2019 SE196386.074
Conductivity of Extract (1:5 as received)	µS/cm	1	170	340	130	260	270
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	190	420	150	290	330

Conductivity and TDS by Calculation - Soil [AN106] Tested: 16/8/2019 (continued)

PARAMETER	UOM	LOR	TP38 SOIL 0.2-0.3 5/8/2019 SE196386.075	TP38 SOIL 0.5-0.6 5/8/2019 SE196386.076	TP39 SOIL 0.2-0.3 5/8/2019 SE196386.077	TP39 SOIL 0.5-0.6 5/8/2019 SE196386.078	TP40 SOIL 0.2-0.3 5/8/2019 SE196386.079
Conductivity of Extract (1:5 as received)	µS/cm	1	250	290	180	91	200
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	290	340	200	110	220

PARAMETER	UOM	LOR	TP40 SOIL 0.5-0.6 5/8/2019 SE196386.080	TP41 SOIL 0.2-0.3 5/8/2019 SE196386.081	TP41 SOIL 0.5-0.6 5/8/2019 SE196386.082	TP42 SOIL 0.2-0.3 5/8/2019 SE196386.083	TP42 SOIL 0.5-0.6 5/8/2019 SE196386.084
Conductivity of Extract (1:5 as received)	µS/cm	1	230	140	160	98	180
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	260	160	190	100	230

PARAMETER	UOM	LOR	TP43 SOIL 0.2-0.3 5/8/2019 SE196386.085	TP43 SOIL 0.5-0.6 5/8/2019 SE196386.086	TP44 SOIL 0.2-0.3 5/8/2019 SE196386.087	TP44 SOIL 0.5-0.6 5/8/2019 SE196386.088	TP45 SOIL 0.2-0.3 5/8/2019 SE196386.089
Conductivity of Extract (1:5 as received)	µS/cm	1	260	290	410	180	290
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	300	340	440	230	350

PARAMETER	UOM	LOR	TP45 SOIL 0.5-0.6 5/8/2019 SE196386.090	TP46 SOIL 0.2-0.3 5/8/2019 SE196386.091	TP46 SOIL 0.5-0.6 5/8/2019 SE196386.092	TP47 SOIL 0.2-0.3 5/8/2019 SE196386.093	TP47 SOIL 0.5-0.6 5/8/2019 SE196386.094
Conductivity of Extract (1:5 as received)	µS/cm	1	330	160	700	430	590
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	420	170	830	490	740

PARAMETER	UOM	LOR	TP48 SOIL 0.2-0.3 5/8/2019 SE196386.095	TP48 SOIL 0.5-0.6 5/8/2019 SE196386.096	TP49 SOIL 0.2-0.3 5/8/2019 SE196386.097	TP50 SOIL 0.2-0.3 5/8/2019 SE196386.098	TP50 SOIL 0.5-0.6 5/8/2019 SE196386.099
Conductivity of Extract (1:5 as received)	µS/cm	1	340	680	590	470	950
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	400	840	700	570	1200

PARAMETER	UOM	LOR	TP51 SOIL 0.2-0.3 6/8/2019 SE196386.100	TP51 SOIL 0.5-0.6 6/8/2019 SE196386.101	TP52 SOIL 0.2-0.3 6/8/2019 SE196386.102	TP52 SOIL 0.5-0.6 6/8/2019 SE196386.103	TP53 SOIL 0.2-0.3 6/8/2019 SE196386.104
Conductivity of Extract (1:5 as received)	µS/cm	1	830	1200	530	710	700
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1000	1500	640	910	890

PARAMETER	UOM	LOR	TP53 SOIL 0.5-0.6 6/8/2019 SE196386.105	TP54 SOIL 0.2-0.3 6/8/2019 SE196386.106	TP54 SOIL 0.5-0.6 6/8/2019 SE196386.107	TP55 SOIL 0.2-0.3 6/8/2019 SE196386.108	TP55 SOIL 0.5-0.6 6/8/2019 SE196386.109
Conductivity of Extract (1:5 as received)	µS/cm	1	590	520	720	610	670
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	730	650	880	740	870

Conductivity and TDS by Calculation - Soil [AN106] Tested: 16/8/2019 (continued)

PARAMETER	UOM	LOR	TP56 SOIL 0.2-0.3 6/8/2019 SE196386.110	TP56 SOIL 0.5-0.6 6/8/2019 SE196386.111	TP57 SOIL 0.2-0.3 6/8/2019 SE196386.112	TP57 SOIL 0.5-0.6 6/8/2019 SE196386.113	TP58 SOIL 0.2-0.3 6/8/2019 SE196386.114
Conductivity of Extract (1:5 as received)	µS/cm	1	230	590	440	720	400
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	240	710	480	900	440

PARAMETER	UOM	LOR	TP59 SOIL 0.5-0.6 6/8/2019 SE196386.115	TP59 SOIL 0.2-0.3 6/8/2019 SE196386.116	TP58 SOIL 0.5-0.6 6/8/2019 SE196386.117	TP60 SOIL 0.2-0.3 6/8/2019 SE196386.118	TP60 SOIL 0.5-0.6 6/8/2019 SE196386.119
Conductivity of Extract (1:5 as received)	µS/cm	1	550	500	760	530	690
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	650	550	960	640	800

PARAMETER	UOM	LOR	TP61 SOIL 0.2-0.3 6/8/2019 SE196386.120	TP61 SOIL 0.5-0.6 6/8/2019 SE196386.121	TP62 SOIL 0.2-0.3 6/8/2019 SE196386.122	TP62 SOIL 0.5-0.6 6/8/2019 SE196386.123	TP63 SOIL 0.2-0.3 6/8/2019 SE196386.124
Conductivity of Extract (1:5 as received)	µS/cm	1	510	440	240	490	570
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	550	500	260	610	670

PARAMETER	UOM	LOR	TP63 SOIL 0.5-0.6 6/8/2019 SE196386.125
Conductivity of Extract (1:5 as received)	µS/cm	1	460
Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	510

Moisture Content [AN002] Tested: 15/8/2019

PARAMETER	UOM	LOR	TP1 SOIL 0.2-0.3 2/8/2019 SE196386.001	TP1 SOIL 0.7-0.8 2/8/2019 SE196386.002	TP2 SOIL 0.2-0.3 2/8/2019 SE196386.003	TP4 SOIL 0.2-0.3 2/8/2019 SE196386.007	TP4 SOIL 0.7-0.8 2/8/2019 SE196386.008
% Moisture	%w/w	0.5	8.7	20	10	18	18

PARAMETER	UOM	LOR	TP5 SOIL 0.2-0.3 2/8/2019 SE196386.009	TP6 SOIL 0.2-0.3 2/8/2019 SE196386.011	TP6 SOIL 0.7-0.8 2/8/2019 SE196386.012	TP7 SOIL 0.2-0.3 2/8/2019 SE196386.013	TP7 SOIL 0.7-0.8 2/8/2019 SE196386.014
% Moisture	%w/w	0.5	10	11	19	20	78

PARAMETER	UOM	LOR	TP8 SOIL 0.2-0.3 2/8/2019 SE196386.015	TP8 SOIL 0.7-0.8 2/8/2019 SE196386.016	TP9 SOIL 0.2-0.3 2/8/2019 SE196386.017	TP9 SOIL 0.7-0.8 2/8/2019 SE196386.018	TP10 SOIL 0.2-0.3 2/8/2019 SE196386.019
% Moisture	%w/w	0.5	20	18	21	19	13

PARAMETER	UOM	LOR	TP10 SOIL 0.7-0.8 2/8/2019 SE196386.020	TP11 SOIL 0.2-0.3 2/8/2019 SE196386.021	TP11 SOIL 0.7-0.8 2/8/2019 SE196386.022	TP12 SOIL 0.2-0.3 2/8/2019 SE196386.023	TP12 SOIL 0.7-0.8 2/8/2019 SE196386.024
% Moisture	%w/w	0.5	18	12	13	17	16

PARAMETER	UOM	LOR	TP13 SOIL 0.2-0.3 2/8/2019 SE196386.025	TP13 SOIL 0.7-0.8 2/8/2019 SE196386.026	TP14 SOIL 0.2-0.3 2/8/2019 SE196386.027	TP14 SOIL 0.7-0.8 2/8/2019 SE196386.028	TP15 SOIL 0.2-0.3 2/8/2019 SE196386.029
% Moisture	%w/w	0.5	19	17	20	18	20

PARAMETER	UOM	LOR	TP15 SOIL 0.7-0.8 2/8/2019 SE196386.030	TP16 SOIL 0.2-0.3 2/8/2019 SE196386.031	TP16 SOIL 0.7-0.8 2/8/2019 SE196386.032	TP17 SOIL 0.2-0.3 2/8/2019 SE196386.033	TP17 SOIL 0.7-0.8 2/8/2019 SE196386.034
% Moisture	%w/w	0.5	20	19	24	15	17

PARAMETER	UOM	LOR	TP18 SOIL 0.2-0.3 2/8/2019 SE196386.035	TP18 SOIL 0.7-0.8 2/8/2019 SE196386.036	TP19 SOIL 0.2-0.3 2/8/2019 SE196386.037	TP19 SOIL 0.7-0.8 2/8/2019 SE196386.038	TP20 SOIL 0.2-0.3 2/8/2019 SE196386.039
% Moisture	%w/w	0.5	9.0	13	12	9.1	17

Moisture Content [AN002] Tested: 15/8/2019 (continued)

PARAMETER	UOM	LOR	TP20 SOIL 0.7-0.8 2/8/2019 SE196386.040	TP21 SOIL 0.2-0.3 2/8/2019 SE196386.041	TP21 SOIL 0.7-0.8 2/8/2019 SE196386.042	TP22 SOIL 0.2-0.3 2/8/2019 SE196386.043	TP22 SOIL 0.7-0.8 2/8/2019 SE196386.044
% Moisture	%w/w	0.5	16	20	17	14	19

PARAMETER	UOM	LOR	TP23 SOIL 0.2-0.3 2/8/2019 SE196386.045	TP23 SOIL 0.7-0.8 2/8/2019 SE196386.046	TP24 SOIL 0.2-0.3 2/8/2019 SE196386.047	TP24 SOIL 0.7-0.8 2/8/2019 SE196386.048	TP25 SOIL 0.2-0.3 2/8/2019 SE196386.049
% Moisture	%w/w	0.5	15	19	14	22	17

PARAMETER	UOM	LOR	TP25 SOIL 0.7-0.8 2/8/2019 SE196386.050	TP26 SOIL 0.2-0.3 5/8/2019 SE196386.051	TP26 SOIL 0.7-0.8 5/8/2019 SE196386.052	TP27 SOIL 0.2-0.3 5/8/2019 SE196386.053	TP27 SOIL 0.7-0.8 5/8/2019 SE196386.054
% Moisture	%w/w	0.5	11	10	16	11	14

PARAMETER	UOM	LOR	TP28 SOIL 0.2-0.3 5/8/2019 SE196386.055	TP28 SOIL 0.7-0.8 5/8/2019 SE196386.056	TP29 SOIL 0.2-0.3 5/8/2019 SE196386.057	TP29 SOIL 0.7-0.8 5/8/2019 SE196386.058	TP30 SOIL 0.2-0.3 5/8/2019 SE196386.059
% Moisture	%w/w	0.5	17	16	18	19	21

PARAMETER	UOM	LOR	TP30 SOIL 0.7-0.8 5/8/2019 SE196386.060	TP31 SOIL 0.2-0.3 5/8/2019 SE196386.061	TP31 SOIL 0.7-0.8 5/8/2019 SE196386.062	TP32 SOIL 0.2-0.3 5/8/2019 SE196386.063	TP32 SOIL 0.7-0.8 5/8/2019 SE196386.064
% Moisture	%w/w	0.5	19	15	20	15	19

PARAMETER	UOM	LOR	TP33 SOIL 0.2-0.3 5/8/2019 SE196386.065	TP33 SOIL 0.7-0.8 5/8/2019 SE196386.066	TP34 SOIL 0.2-0.3 5/8/2019 SE196386.067	TP34 SOIL 0.7-0.8 5/8/2019 SE196386.068	TP35 SOIL 0.2-0.3 5/8/2019 SE196386.069
% Moisture	%w/w	0.5	24	21	17	11	16

PARAMETER	UOM	LOR	TP35 SOIL 0.5-0.6 5/8/2019 SE196386.070	TP36 SOIL 0.2-0.3 5/8/2019 SE196386.071	TP36 SOIL 0.5-0.6 5/8/2019 SE196386.072	TP37 SOIL 0.2-0.3 5/8/2019 SE196386.073	TP37 SOIL 0.5-0.6 5/8/2019 SE196386.074
% Moisture	%w/w	0.5	12	17	14	11	17

Moisture Content [AN002] Tested: 15/8/2019 (continued)

PARAMETER	UOM	LOR	TP38 SOIL 0.2-0.3 5/8/2019 SE196386.075	TP38 SOIL 0.5-0.6 5/8/2019 SE196386.076	TP39 SOIL 0.2-0.3 5/8/2019 SE196386.077	TP39 SOIL 0.5-0.6 5/8/2019 SE196386.078	TP40 SOIL 0.2-0.3 5/8/2019 SE196386.079
% Moisture	%w/w	0.5	14	16	10	18	9.0

PARAMETER	UOM	LOR	TP40 SOIL 0.5-0.6 5/8/2019 SE196386.080	TP41 SOIL 0.2-0.3 5/8/2019 SE196386.081	TP41 SOIL 0.5-0.6 5/8/2019 SE196386.082	TP42 SOIL 0.2-0.3 5/8/2019 SE196386.083	TP42 SOIL 0.5-0.6 5/8/2019 SE196386.084
% Moisture	%w/w	0.5	13	7.8	18	5.9	19

PARAMETER	UOM	LOR	TP43 SOIL 0.2-0.3 5/8/2019 SE196386.085	TP43 SOIL 0.5-0.6 5/8/2019 SE196386.086	TP44 SOIL 0.2-0.3 5/8/2019 SE196386.087	TP44 SOIL 0.5-0.6 5/8/2019 SE196386.088	TP45 SOIL 0.2-0.3 5/8/2019 SE196386.089
% Moisture	%w/w	0.5	15	12	6.2	20	17

PARAMETER	UOM	LOR	TP45 SOIL 0.5-0.6 5/8/2019 SE196386.090	TP46 SOIL 0.2-0.3 5/8/2019 SE196386.091	TP46 SOIL 0.5-0.6 5/8/2019 SE196386.092	TP47 SOIL 0.2-0.3 5/8/2019 SE196386.093	TP47 SOIL 0.5-0.6 5/8/2019 SE196386.094
% Moisture	%w/w	0.5	22	7.5	15	11	21

PARAMETER	UOM	LOR	TP48 SOIL 0.2-0.3 5/8/2019 SE196386.095	TP48 SOIL 0.5-0.6 5/8/2019 SE196386.096	TP49 SOIL 0.2-0.3 5/8/2019 SE196386.097	TP50 SOIL 0.2-0.3 5/8/2019 SE196386.098	TP50 SOIL 0.5-0.6 5/8/2019 SE196386.099
% Moisture	%w/w	0.5	13	19	16	16	21

PARAMETER	UOM	LOR	TP51 SOIL 0.2-0.3 6/8/2019 SE196386.100	TP51 SOIL 0.5-0.6 6/8/2019 SE196386.101	TP52 SOIL 0.2-0.3 6/8/2019 SE196386.102	TP52 SOIL 0.5-0.6 6/8/2019 SE196386.103	TP53 SOIL 0.2-0.3 6/8/2019 SE196386.104
% Moisture	%w/w	0.5	21	22	18	23	22

PARAMETER	UOM	LOR	TP53 SOIL 0.5-0.6 6/8/2019 SE196386.105	TP54 SOIL 0.2-0.3 6/8/2019 SE196386.106	TP54 SOIL 0.5-0.6 6/8/2019 SE196386.107	TP55 SOIL 0.2-0.3 6/8/2019 SE196386.108	TP55 SOIL 0.5-0.6 6/8/2019 SE196386.109
% Moisture	%w/w	0.5	20	19	19	17	23

Moisture Content [AN002] Tested: 15/8/2019 (continued)

PARAMETER	UOM	LOR	TP56 SOIL 0.2-0.3 6/8/2019 SE196386.110	TP56 SOIL 0.5-0.6 6/8/2019 SE196386.111	TP57 SOIL 0.2-0.3 6/8/2019 SE196386.112	TP57 SOIL 0.5-0.6 6/8/2019 SE196386.113	TP58 SOIL 0.2-0.3 6/8/2019 SE196386.114
% Moisture	%w/w	0.5	6.2	16	7.9	20	10

PARAMETER	UOM	LOR	TP59 SOIL 0.5-0.6 6/8/2019 SE196386.115	TP59 SOIL 0.2-0.3 6/8/2019 SE196386.116	TP58 SOIL 0.5-0.6 6/8/2019 SE196386.117	TP60 SOIL 0.2-0.3 6/8/2019 SE196386.118	TP60 SOIL 0.5-0.6 6/8/2019 SE196386.119
% Moisture	%w/w	0.5	16	9.9	21	17	14

PARAMETER	UOM	LOR	TP61 SOIL 0.2-0.3 6/8/2019 SE196386.120	TP61 SOIL 0.5-0.6 6/8/2019 SE196386.121	TP62 SOIL 0.2-0.3 6/8/2019 SE196386.122	TP62 SOIL 0.5-0.6 6/8/2019 SE196386.123	TP63 SOIL 0.2-0.3 6/8/2019 SE196386.124
% Moisture	%w/w	0.5	7.3	12	8.6	19	16

PARAMETER	UOM	LOR	TP63 SOIL 0.5-0.6 6/8/2019 SE196386.125
% Moisture	%w/w	0.5	9.4

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN101	pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl2) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
AN106	Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos /cm or µS/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Salinity can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. Reference APHA 2510 B.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
		NVL	Not validated.	LOR	Limit of Reporting.
**	Indicative data, theoretical holding time exceeded.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

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

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au.pv.sgsvr/en-gb/environment.

STATEMENT OF QA/QC PERFORMANCE

SE196386 R0

CLIENT DETAILS

Contact	Ram Ravi-Indran
Client	Geotechnique
Address	P.O. Box 880 NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	ram@geotech.com.au
Project	**8599-28 Elara Boulevard, Marsden Park**
Order Number	(Not specified)
Samples	125

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE196386 R0**
Date Received	12 Aug 2019
Date Reported	21 Aug 2019

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

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

Extraction Date	Conductivity and TDS by Calculation - Soil	121 items
	pH in soil (1:5)	121 items
Analysis Date	Conductivity and TDS by Calculation - Soil	142 items
	Moisture Content	41 items
	pH in soil (1:5)	13 items
Duplicate	Conductivity and TDS by Calculation - Soil	2 items

SAMPLE SUMMARY

HOLDING TIME SUMMARY

SE196386 R0

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

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

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

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE196386.001	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP1	SE196386.002	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP2	SE196386.003	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP4	SE196386.007	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP4	SE196386.008	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP5	SE196386.009	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP6	SE196386.011	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP6	SE196386.012	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP7	SE196386.013	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP7	SE196386.014	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP8	SE196386.015	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP8	SE196386.016	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP9	SE196386.017	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	09 Aug 2019	19 Aug 2019†
TP9	SE196386.018	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP10	SE196386.019	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP10	SE196386.020	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP11	SE196386.021	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP11	SE196386.022	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP12	SE196386.023	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP12	SE196386.024	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP13	SE196386.025	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP13	SE196386.026	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP14	SE196386.027	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP14	SE196386.028	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP15	SE196386.029	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP15	SE196386.030	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP16	SE196386.031	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP16	SE196386.032	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP17	SE196386.033	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP17	SE196386.034	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP18	SE196386.035	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP18	SE196386.036	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP19	SE196386.037	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP19	SE196386.038	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	21 Aug 2019†
TP20	SE196386.039	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	21 Aug 2019†
TP20	SE196386.040	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	21 Aug 2019†
TP21	SE196386.041	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	21 Aug 2019†
TP21	SE196386.042	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	21 Aug 2019†
TP22	SE196386.043	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP22	SE196386.044	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP23	SE196386.045	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP23	SE196386.046	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP24	SE196386.047	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP24	SE196386.048	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP25	SE196386.049	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP25	SE196386.050	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	09 Aug 2019	20 Aug 2019†
TP26	SE196386.051	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP26	SE196386.052	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP27	SE196386.053	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP27	SE196386.054	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP28	SE196386.055	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP28	SE196386.056	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP29	SE196386.057	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP29	SE196386.058	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP30	SE196386.059	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP30	SE196386.060	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP31	SE196386.061	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP31	SE196386.062	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP32	SE196386.063	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP32	SE196386.064	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†

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

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

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

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP33	SE196386.065	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP33	SE196386.066	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP34	SE196386.067	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP34	SE196386.068	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP35	SE196386.069	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP35	SE196386.070	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP36	SE196386.071	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP36	SE196386.072	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP37	SE196386.073	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP37	SE196386.074	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP38	SE196386.075	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP38	SE196386.076	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP39	SE196386.077	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP39	SE196386.078	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP40	SE196386.079	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP40	SE196386.080	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP41	SE196386.081	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	20 Aug 2019†
TP41	SE196386.082	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP42	SE196386.083	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP42	SE196386.084	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP43	SE196386.085	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP43	SE196386.086	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP44	SE196386.087	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP44	SE196386.088	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP45	SE196386.089	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP45	SE196386.090	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP46	SE196386.091	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP46	SE196386.092	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP47	SE196386.093	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP47	SE196386.094	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP48	SE196386.095	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP48	SE196386.096	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP49	SE196386.097	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP50	SE196386.098	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP50	SE196386.099	LB181343	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	12 Aug 2019	21 Aug 2019†
TP51	SE196386.100	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP51	SE196386.101	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP52	SE196386.102	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP52	SE196386.103	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP53	SE196386.104	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP53	SE196386.105	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP54	SE196386.106	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP54	SE196386.107	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP55	SE196386.108	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP55	SE196386.109	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP56	SE196386.110	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP56	SE196386.111	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP57	SE196386.112	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP57	SE196386.113	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP58	SE196386.114	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP59	SE196386.115	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP59	SE196386.116	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP58	SE196386.117	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	21 Aug 2019†
TP60	SE196386.118	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP60	SE196386.119	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP61	SE196386.120	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP61	SE196386.121	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP62	SE196386.122	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP62	SE196386.123	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†
TP63	SE196386.124	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†

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

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

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

Conductivity and TDS by Calculation - Soil (continued)

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP63	SE196386.125	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	13 Aug 2019	20 Aug 2019†

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE196386.001	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP1	SE196386.002	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP2	SE196386.003	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP4	SE196386.007	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP4	SE196386.008	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP5	SE196386.009	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP6	SE196386.011	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP6	SE196386.012	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP7	SE196386.013	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP7	SE196386.014	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP8	SE196386.015	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP8	SE196386.016	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP9	SE196386.017	LB181033	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	19 Aug 2019
TP9	SE196386.018	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP10	SE196386.019	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP10	SE196386.020	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP11	SE196386.021	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP11	SE196386.022	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP12	SE196386.023	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP12	SE196386.024	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP13	SE196386.025	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP13	SE196386.026	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP14	SE196386.027	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP14	SE196386.028	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP15	SE196386.029	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP15	SE196386.030	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP16	SE196386.031	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP16	SE196386.032	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP17	SE196386.033	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP17	SE196386.034	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP18	SE196386.035	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP18	SE196386.036	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP19	SE196386.037	LB181034	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP19	SE196386.038	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP20	SE196386.039	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP20	SE196386.040	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP21	SE196386.041	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP21	SE196386.042	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP22	SE196386.043	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP22	SE196386.044	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP23	SE196386.045	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP23	SE196386.046	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP24	SE196386.047	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP24	SE196386.048	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP25	SE196386.049	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP25	SE196386.050	LB181035	02 Aug 2019	12 Aug 2019	16 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP26	SE196386.051	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP26	SE196386.052	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP27	SE196386.053	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP27	SE196386.054	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP28	SE196386.055	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP28	SE196386.056	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP29	SE196386.057	LB181035	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP29	SE196386.058	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP30	SE196386.059	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP30	SE196386.060	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019

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

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

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

Moisture Content (continued) — **Method: ME-(AU)-[ENV]AN002**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP31	SE196386.061	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP31	SE196386.062	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP32	SE196386.063	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP32	SE196386.064	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP33	SE196386.065	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP33	SE196386.066	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP34	SE196386.067	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP34	SE196386.068	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP35	SE196386.069	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP35	SE196386.070	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP36	SE196386.071	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP36	SE196386.072	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP37	SE196386.073	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP37	SE196386.074	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP38	SE196386.075	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP38	SE196386.076	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP39	SE196386.077	LB181036	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP39	SE196386.078	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP40	SE196386.079	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP40	SE196386.080	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP41	SE196386.081	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP41	SE196386.082	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP42	SE196386.083	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP42	SE196386.084	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP43	SE196386.085	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP43	SE196386.086	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP44	SE196386.087	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP44	SE196386.088	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP45	SE196386.089	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP45	SE196386.090	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP46	SE196386.091	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP46	SE196386.092	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP47	SE196386.093	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP47	SE196386.094	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP48	SE196386.095	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP48	SE196386.096	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP49	SE196386.097	LB181037	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP50	SE196386.098	LB181038	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP50	SE196386.099	LB181038	05 Aug 2019	12 Aug 2019	19 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP51	SE196386.100	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP51	SE196386.101	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP52	SE196386.102	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP52	SE196386.103	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP53	SE196386.104	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP53	SE196386.105	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP54	SE196386.106	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP54	SE196386.107	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP55	SE196386.108	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP55	SE196386.109	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP56	SE196386.110	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP56	SE196386.111	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP57	SE196386.112	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP57	SE196386.113	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP58	SE196386.114	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP59	SE196386.115	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP59	SE196386.116	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP58	SE196386.117	LB181038	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	21 Aug 2019†
TP60	SE196386.118	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP60	SE196386.119	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP61	SE196386.120	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019

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

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

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

Moisture Content (continued) — Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP61	SE196386.121	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP62	SE196386.122	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP62	SE196386.123	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP63	SE196386.124	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019
TP63	SE196386.125	LB181041	06 Aug 2019	12 Aug 2019	20 Aug 2019	15 Aug 2019	20 Aug 2019	20 Aug 2019

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP1	SE196386.001	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP1	SE196386.002	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP2	SE196386.003	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP4	SE196386.007	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP4	SE196386.008	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP5	SE196386.009	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP6	SE196386.011	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP6	SE196386.012	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP7	SE196386.013	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP7	SE196386.014	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP8	SE196386.015	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP8	SE196386.016	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP9	SE196386.017	LB181138	02 Aug 2019	12 Aug 2019	09 Aug 2019	16 Aug 2019†	17 Aug 2019	19 Aug 2019†
TP9	SE196386.018	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP10	SE196386.019	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP10	SE196386.020	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP11	SE196386.021	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP11	SE196386.022	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP12	SE196386.023	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP12	SE196386.024	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP13	SE196386.025	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP13	SE196386.026	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP14	SE196386.027	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP14	SE196386.028	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP15	SE196386.029	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP15	SE196386.030	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP16	SE196386.031	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP16	SE196386.032	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP17	SE196386.033	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP17	SE196386.034	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP18	SE196386.035	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP18	SE196386.036	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP19	SE196386.037	LB181280	02 Aug 2019	12 Aug 2019	09 Aug 2019	19 Aug 2019†	20 Aug 2019	20 Aug 2019
TP19	SE196386.038	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP20	SE196386.039	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP20	SE196386.040	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP21	SE196386.041	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP21	SE196386.042	LB181344	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP22	SE196386.043	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP22	SE196386.044	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP23	SE196386.045	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP23	SE196386.046	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP24	SE196386.047	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP24	SE196386.048	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP25	SE196386.049	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP25	SE196386.050	LB181305	02 Aug 2019	12 Aug 2019	09 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP26	SE196386.051	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP26	SE196386.052	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP27	SE196386.053	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP27	SE196386.054	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP28	SE196386.055	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP28	SE196386.056	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019

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

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

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

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP29	SE196386.057	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP29	SE196386.058	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP30	SE196386.059	LB181305	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP30	SE196386.060	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP31	SE196386.061	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP31	SE196386.062	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP32	SE196386.063	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP32	SE196386.064	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP33	SE196386.065	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP33	SE196386.066	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP34	SE196386.067	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP34	SE196386.068	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP35	SE196386.069	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP35	SE196386.070	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP36	SE196386.071	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP36	SE196386.072	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP37	SE196386.073	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP37	SE196386.074	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP38	SE196386.075	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP38	SE196386.076	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP39	SE196386.077	LB181307	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP39	SE196386.078	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP40	SE196386.079	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP40	SE196386.080	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP41	SE196386.081	LB181311	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP41	SE196386.082	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP42	SE196386.083	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP42	SE196386.084	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP43	SE196386.085	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP43	SE196386.086	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP44	SE196386.087	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP44	SE196386.088	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP45	SE196386.089	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP45	SE196386.090	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP46	SE196386.091	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP46	SE196386.092	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP47	SE196386.093	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP47	SE196386.094	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP48	SE196386.095	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP48	SE196386.096	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP49	SE196386.097	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP50	SE196386.098	LB181340	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP50	SE196386.099	LB181343	05 Aug 2019	12 Aug 2019	12 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP51	SE196386.100	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP51	SE196386.101	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP52	SE196386.102	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP52	SE196386.103	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP53	SE196386.104	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP53	SE196386.105	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP54	SE196386.106	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP54	SE196386.107	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP55	SE196386.108	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP55	SE196386.109	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP56	SE196386.110	LB181343	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP56	SE196386.111	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP57	SE196386.112	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP57	SE196386.113	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP58	SE196386.114	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP59	SE196386.115	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP59	SE196386.116	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019

HOLDING TIME SUMMARY

SE196386 R0

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

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

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

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP58	SE196386.117	LB181344	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	21 Aug 2019
TP60	SE196386.118	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP60	SE196386.119	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP61	SE196386.120	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP61	SE196386.121	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP62	SE196386.122	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP62	SE196386.123	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP63	SE196386.124	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019
TP63	SE196386.125	LB181312	06 Aug 2019	12 Aug 2019	13 Aug 2019	20 Aug 2019†	21 Aug 2019	20 Aug 2019

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

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No surrogates were required for this job.

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

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

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

Sample Number	Parameter	Units	LOR	Result
LB181138.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181280.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181305.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181307.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181311.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181312.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0.48
LB181340.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181343.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0
LB181344.001	Conductivity of Extract (1:5 as received)	µS/cm	1	<1
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Conductivity and TDS by Calculation - Soil

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196385.002	LB181312.014	Conductivity of Extract (1:5 as received)	µS/cm	1	210	190	31	8
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	240	21.851952461	31	8
SE196385.012	LB181312.025	Conductivity of Extract (1:5 as received)	µS/cm	1	370	320	31	15
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	410	53.374689564	31	15
SE196386.017	LB181138.025	Conductivity of Extract (1:5 as received)	µS/cm	1	410	350	31	15
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	520	45.995886761	30	15
SE196386.021	LB181280.026	Conductivity of Extract (1:5 as received)	µS/cm	1	310	313.04	31	1
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	350	56.217931034	31	1
SE196386.032	LB181280.027	Conductivity of Extract (1:5 as received)	µS/cm	1	360	404.92	31	12
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	480	35.151027027	30	12
SE196386.048	LB181305.023	Conductivity of Extract (1:5 as received)	µS/cm	1	480	454	30	5
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	620	82.946745562	30	5
SE196386.057	LB181305.024	Conductivity of Extract (1:5 as received)	µS/cm	1	290	293.67	31	2
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	350	56.973257698	31	2
SE196386.067	LB181307.024	Conductivity of Extract (1:5 as received)	µS/cm	1	710	636.54	30	11
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	860	70.548421052	30	11
SE196386.077	LB181307.023	Conductivity of Extract (1:5 as received)	µS/cm	1	180	170	31	4
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	200	92.366666666	31	4
SE196386.087	LB181340.023	Conductivity of Extract (1:5 as received)	µS/cm	1	410	411.63	30	1
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	440	38.726092436	30	1
SE196386.097	LB181340.024	Conductivity of Extract (1:5 as received)	µS/cm	1	590	547.91	30	8
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	700	50.562927400	30	8
SE196386.107	LB181343.018	Conductivity of Extract (1:5 as received)	µS/cm	1	720	656	30	9
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	880	09.685534591	30	9
SE196386.110	LB181343.017	Conductivity of Extract (1:5 as received)	µS/cm	1	230	340	31	40 ②
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	240	62.626970227	31	40 ②
SE196386.115	LB181344.014	Conductivity of Extract (1:5 as received)	µS/cm	1	550	580	30	7
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	650	96.401673640	30	7
SE196386.117	LB181344.017	Conductivity of Extract (1:5 as received)	µS/cm	1	760	830	30	8
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	960	046.657210401	30	8
SE196423.005	LB181138.026	Conductivity of Extract (1:5 as received)	µS/cm	1	210	214.08	31	4
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	11.547464887	19.642471910	31	4
SE196599.005	LB181311.014	Conductivity of Extract (1:5 as received)	µS/cm	1	1426.66	1479.05	30	4
		Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	1500	527.52496189	30	4

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196385.002	LB181041.011	% Moisture	%w/w	0.5	13	12	38	5
SE196385.012	LB181041.022	% Moisture	%w/w	0.5	9.0	8.5	41	6
SE196385.013	LB181041.024	% Moisture	%w/w	0.5	12	15	37	17
SE196386.003	LB181033.011	% Moisture	%w/w	0.5	10	12	39	16
SE196386.017	LB181033.022	% Moisture	%w/w	0.5	21	22	35	1
SE196386.027	LB181034.011	% Moisture	%w/w	0.5	20	20	35	2
SE196386.037	LB181034.022	% Moisture	%w/w	0.5	12	10	39	11
SE196386.047	LB181035.011	% Moisture	%w/w	0.5	14	13	38	7
SE196386.057	LB181035.022	% Moisture	%w/w	0.5	18	20	35	12
SE196386.067	LB181036.011	% Moisture	%w/w	0.5	17	17	36	2
SE196386.077	LB181036.022	% Moisture	%w/w	0.5	10	8.6	41	15
SE196386.087	LB181037.011	% Moisture	%w/w	0.5	6.2	7.2	45	16
SE196386.097	LB181037.022	% Moisture	%w/w	0.5	16	16	36	4
SE196386.107	LB181038.011	% Moisture	%w/w	0.5	19	19	35	2
SE196386.117	LB181038.022	% Moisture	%w/w	0.5	21	22	35	3

pH in soil (1:5)

Method: ME-(AU)-[ENV]AN101

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196385.002	LB181312.014	pH	pH Units	0.1	5.4	5.3	32	3
SE196385.012	LB181312.025	pH	pH Units	0.1	5.4	5.3	32	1
SE196386.017	LB181138.025	pH	pH Units	0.1	6.3	6.0	32	4
SE196386.021	LB181280.026	pH	pH Units	0.1	5.5	5.494	32	1
SE196386.032	LB181280.027	pH	pH Units	0.1	5.2	6.179	32	17
SE196386.048	LB181305.023	pH	pH Units	0.1	5.2	5.532	32	6
SE196386.057	LB181305.024	pH	pH Units	0.1	5.1	5.137	32	1

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE196386.067	LB181307.024	pH	pH Units	0.1	4.7	4.869	32	5
SE196386.077	LB181307.023	pH	pH Units	0.1	5.6	5.6	32	1
SE196386.087	LB181340.023	pH	pH Units	0.1	7.6	7.832	31	2
SE196386.097	LB181340.024	pH	pH Units	0.1	5.2	5.374	32	4
SE196386.107	LB181343.018	pH	pH Units	0.1	5.4	4.426	32	19
SE196386.110	LB181343.017	pH	pH Units	0.1	5.9	5.8	32	2
SE196386.115	LB181344.014	pH	pH Units	0.1	5.2	5.0	32	4
SE196386.117	LB181344.017	pH	pH Units	0.1	5.0	5.0	32	1
SE196599.005	LB181311.014	pH	pH Units	0.1	6.6	6.7	32	0

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

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

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB181138.002	Conductivity of Extract (1:5 as received)	µS/cm	1	300	303	85 - 115	100
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	100
LB181280.002	Conductivity of Extract (1:5 as received)	µS/cm	1	300	303	85 - 115	99
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	99
LB181305.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	95
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	95
LB181307.002	Conductivity of Extract (1:5 as received)	µS/cm	1	280	303	85 - 115	94
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	94
LB181311.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	97
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	97
LB181312.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	96
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	96
LB181340.002	Conductivity of Extract (1:5 as received)	µS/cm	1	280	303	85 - 115	93
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	93
LB181343.002	Conductivity of Extract (1:5 as received)	µS/cm	1	290	303	85 - 115	94
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	94
LB181344.002	Conductivity of Extract (1:5 as received)	µS/cm	1	280	303	85 - 115	94
	Conductivity of Extract (1:5 dry sample basis)	µS/cm	1	NA	303	85 - 115	94

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB181138.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181280.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181305.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181307.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181311.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181312.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181340.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181343.003	pH	pH Units	0.1	7.4	7.415	98 - 102	100
LB181344.003	pH	pH Units	0.1	7.4	7.415	98 - 102	99

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spikes were required for this job.

MATRIX SPIKE DUPLICATES

SE196386 R0

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to Analytical Report comments for further information.

GEOTECHNIQUE PTY LTD

E-MAILED 9/8/19 @ 3:48pm

Laboratory Test Request / Chain of Custody Record

Lemko Place
PENRITH NSW 2750

P O Box 880
PENRITH NSW 2751

Tel: (02) 4722 2700
Fax: (02) 4722 6161
email: info@geotech.com.au

TO: SGS ENVIRONMENTAL SERVICES
UNIT 16
33 MADDOX STREET
ALEXANDRIA NSW

PH: 8594 0400 **FAX:** 8594 0499

ATTN: Ms Emily Yin

Sampling Date:	02/08/2019-09/08/2019	**Job No:**	8599/28
Sampled By:	RR & NK	**Project:**	Lot Classification
Project Manager:	RR	**Location:**	Elara Boulevard, Marsden Park

Results required by:

	Sampling details		Sample type											
	Location	Depth (m)	Soil	Water	EC (1:5)	pH	Sulphate	Chloride	ESP					KEEP SAMPLE
1	TP1	0.2-0.3	DSP		✓	✓								YES
2		0.7-0.8	DSP		✓	✓								YES
3	TP2	0.2-0.3	DSP		✓	✓								YES
4		0.7-0.8	DSP		✓	✓								YES
5	TP3	0.2-0.3	DSP		✓	✓								YES
6		0.7-0.8	DSP		✓	✓								YES
7	TP4	0.2-0.3	DSP		✓	✓								YES
8		0.7-0.8	DSP		✓	✓								YES
9	TP5	0.2-0.3	DSP		✓	✓								YES
10		0.7-0.8	DSP		✓	✓								YES
	TP6	0.2-0.3	DSP		✓	✓								YES
		0.7-0.8	DSP		✓	✓								YES
	TP7	0.2-0.3	DSP		✓	✓								YES
		0.7-0.8	DSP		✓	✓								YES
	TP8	0.2-0.3	DSP		✓	✓								YES
		0.7-0.8	DSP		✓	✓								YES
	TP9	0.2-0.3	DSP		✓	✓								YES
		0.7-0.8	DSP		✓	✓								YES
	TP10	0.2-0.3	DSP		✓	✓								YES
		0.7-0.8	DSP		✓	✓								YES
	TP11	0.2-0.3	DSP		✓	✓								YES
		0.7-0.8	DSP		✓	✓								YES
	TP12	0.2-0.3	DSP		✓	✓								YES
24		0.7-0.8	DSP		✓	✓								YES
25	TP13	0.2-0.3	DSP		✓	✓								YES

SGS EHS Alexandria Laboratory
SE196386 COC
Received: 12 – Aug – 2019

26	0.7-0.8	DSP		✓	✓								YES
TP14	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP15	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP16	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP17	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP18	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP19	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP20	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP21	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP22	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP23	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP24	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP25	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP26	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP27	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP28	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP29	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP30	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP31	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP32	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP33	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP34	0.2-0.3	DSP		✓	✓								YES
	0.7-0.8	DSP		✓	✓								YES
TP35	0.2-0.3	DSP		✓	✓								YES
70	0.5-0.6	DSP		✓	✓								YES

TP36 71	0.2-0.3	DSP		✓	✓									YES
72	0.5-0.6	DSP		✓	✓									YES
TP37 73	0.2-0.3	DSP		✓	✓									YES
74	0.5-0.6	DSP		✓	✓									YES
TP38 75	0.2-0.3	DSP		✓	✓									YES
76	0.5-0.6	DSP		✓	✓									YES
TP39 77	0.2-0.3	DSP		✓	✓									YES
78	0.5-0.6	DSP		✓	✓									YES
TP40 79	0.2-0.3	DSP		✓	✓									YES
80	0.5-0.6	DSP		✓	✓									YES
TP41 81	0.2-0.3	DSP		✓	✓									YES
82	0.5-0.6	DSP		✓	✓									YES
TP42 83	0.2-0.3	DSP		✓	✓									YES
84	0.5-0.6	DSP		✓	✓									YES
TP43 85	0.2-0.3	DSP		✓	✓									YES
86	0.5-0.6	DSP		✓	✓									YES
TP44 87	0.2-0.3	DSP		✓	✓									YES
88	0.5-0.6	DSP		✓	✓									YES
TP45 89	0.2-0.3	DSP		✓	✓									YES
90	0.5-0.6	DSP		✓	✓									YES
TP46 91	0.2-0.3	DSP		✓	✓									YES
92	0.5-0.6	DSP		✓	✓									YES
TP47 93	0.2-0.3	DSP		✓	✓									YES
94	0.5-0.6	DSP		✓	✓									YES
TP48 95	0.2-0.3	DSP		✓	✓									YES
96	0.5-0.6	DSP		✓	✓									YES
TP49 97	0.2-0.3	DSP		✓	✓									YES
●	0.5-0.6	DSP		✓	✓									YES
TP50 98	0.2-0.3	DSP		✓	✓									YES
99	0.5-0.6	DSP		✓	✓									YES
TP51 100	0.2-0.3	DSP		✓	✓									YES
101	0.5-0.6	DSP		✓	✓									YES
TP52 102	0.2-0.3	DSP		✓	✓									YES
103	0.5-0.6	DSP		✓	✓									YES
TP53 104	0.2-0.3	DSP		✓	✓									YES
105	0.5-0.6	DSP		✓	✓									YES
TP54 106	0.2-0.3	DSP		✓	✓									YES
107	0.5-0.6	DSP		✓	✓									YES
TP55 108	0.2-0.3	DSP		✓	✓									YES
109	0.5-0.6	DSP		✓	✓									YES
TP56 110	0.2-0.3	DSP		✓	✓									YES
111	0.5-0.6	DSP		✓	✓									YES
TP57 112	0.2-0.3	DSP		✓	✓									YES
113	0.5-0.6	DSP		✓	✓									YES
TP58 114	0.2-0.3	DSP		✓	✓									YES

	115	0.5-0.6	DSP		✓	✓								YES
TP59	116	0.2-0.3	DSP		✓	✓								YES
	117	0.5-0.6	DSP		✓	✓								YES
TP60	118	0.2-0.3	DSP		✓	✓								YES
	119	0.5-0.6	DSP		✓	✓								YES
TP61	120	0.2-0.3	DSP		✓	✓								YES
	121	0.5-0.6	DSP		✓	✓								YES
TP62	122	0.2-0.3	DSP		✓	✓								YES
	123	0.5-0.6	DSP		✓	✓								YES
TP63	124	0.2-0.3	DSP		✓	✓								YES
	125	0.5-0.6	DSP		✓	✓								YES

Relinquished by			Received by		
Name	Signature	Date	Name	Signature	Date
Raja	NK	9/08/2019	J.L	J.L	9/8/19 2pm

WG	Water sample, glass bottle	USG	Undisturbed soil sample	DSP	Disturbed soil sample (small plastic bag)	* Purge & Trap	@ mole H^+/tonne
WP	Water sample, plastic bottle	DSG	Disturbed soil sample (gl	✓	Test required	# Geotechnique Screen	

SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Contact	Ram Ravi-Indran
Client	Geotechnique
Address	P.O. Box 880 NSW 2751
Telephone	02 4722 2700
Facsimile	02 4722 6161
Email	ram@geotech.com.au
Project	**8599-28 Elara Boulevard, Marsden Park**
Order Number	(Not specified)
Samples	125

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Mon 12/8/2019
Report Due	Wed 21/8/2019
SGS Reference	**SE196386**

SUBMISSION DETAILS

This is to confirm that 125 samples were received on Monday 12/8/2019. Results are expected to be ready by COB Wednesday 21/8/2019.
Please quote SGS reference SE196386 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	Client	Sample cooling method	None
Samples received in correct containers	Yes	Sample counts by matrix	120 Soil
Date documentation received	9/8/2019@3:48pm	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	NA
Sample temperature upon receipt	16.8°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

COMMENTS

Samples with "red dots" not received.

SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Client Geotechnique

Project 8599-28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
001	TP1 0.2-0.3	2	1	1
002	TP1 0.7-0.8	2	1	1
003	TP2 0.2-0.3	2	1	1
007	TP4 0.2-0.3	2	1	1
008	TP4 0.7-0.8	2	1	1
009	TP5 0.2-0.3	2	1	1
011	TP6 0.2-0.3	2	1	1
012	TP6 0.7-0.8	2	1	1
013	TP7 0.2-0.3	2	1	1
014	TP7 0.7-0.8	2	1	1
015	TP8 0.2-0.3	2	1	1
016	TP8 0.7-0.8	2	1	1
017	TP9 0.2-0.3	2	1	1
018	TP9 0.7-0.8	2	1	1
019	TP10 0.2-0.3	2	1	1
020	TP10 0.7-0.8	2	1	1
021	TP11 0.2-0.3	2	1	1
022	TP11 0.7-0.8	2	1	1
023	TP12 0.2-0.3	2	1	1
024	TP12 0.7-0.8	2	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Client Geotechnique

Project 8599-28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
025	TP13 0.2-0.3	2	1	1
026	TP13 0.7-0.8	2	1	1
027	TP14 0.2-0.3	2	1	1
028	TP14 0.7-0.8	2	1	1
029	TP15 0.2-0.3	2	1	1
030	TP15 0.7-0.8	2	1	1
031	TP16 0.2-0.3	2	1	1
032	TP16 0.7-0.8	2	1	1
033	TP17 0.2-0.3	2	1	1
034	TP17 0.7-0.8	2	1	1
035	TP18 0.2-0.3	2	1	1
036	TP18 0.7-0.8	2	1	1
037	TP19 0.2-0.3	2	1	1
038	TP19 0.7-0.8	2	1	1
039	TP20 0.2-0.3	2	1	1
040	TP20 0.7-0.8	2	1	1
041	TP21 0.2-0.3	2	1	1
042	TP21 0.7-0.8	2	1	1
043	TP22 0.2-0.3	2	1	1
044	TP22 0.7-0.8	2	1	1
045	TP23 0.2-0.3	2	1	1
046	TP23 0.7-0.8	2	1	1
047	TP24 0.2-0.3	2	1	1
048	TP24 0.7-0.8	2	1	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Client Geotechnique

Project 8599-28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
049	TP25 0.2-0.3	2	1	1
050	TP25 0.7-0.8	2	1	1
051	TP26 0.2-0.3	2	1	1
052	TP26 0.7-0.8	2	1	1
053	TP27 0.2-0.3	2	1	1
054	TP27 0.7-0.8	2	1	1
055	TP28 0.2-0.3	2	1	1
056	TP28 0.7-0.8	2	1	1
057	TP29 0.2-0.3	2	1	1
058	TP29 0.7-0.8	2	1	1
059	TP30 0.2-0.3	2	1	1
060	TP30 0.7-0.8	2	1	1
061	TP31 0.2-0.3	2	1	1
062	TP31 0.7-0.8	2	1	1
063	TP32 0.2-0.3	2	1	1
064	TP32 0.7-0.8	2	1	1
065	TP33 0.2-0.3	2	1	1
066	TP33 0.7-0.8	2	1	1
067	TP34 0.2-0.3	2	1	1
068	TP34 0.7-0.8	2	1	1
069	TP35 0.2-0.3	2	1	1
070	TP35 0.5-0.6	2	1	1
071	TP36 0.2-0.3	2	1	1
072	TP36 0.5-0.6	2	1	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Client Geotechnique

Project 8599-28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
073	TP37 0.2-0.3	2	1	1
074	TP37 0.5-0.6	2	1	1
075	TP38 0.2-0.3	2	1	1
076	TP38 0.5-0.6	2	1	1
077	TP39 0.2-0.3	2	1	1
078	TP39 0.5-0.6	2	1	1
079	TP40 0.2-0.3	2	1	1
080	TP40 0.5-0.6	2	1	1
081	TP41 0.2-0.3	2	1	1
082	TP41 0.5-0.6	2	1	1
083	TP42 0.2-0.3	2	1	1
084	TP42 0.5-0.6	2	1	1
085	TP43 0.2-0.3	2	1	1
086	TP43 0.5-0.6	2	1	1
087	TP44 0.2-0.3	2	1	1
088	TP44 0.5-0.6	2	1	1
089	TP45 0.2-0.3	2	1	1
090	TP45 0.5-0.6	2	1	1
091	TP46 0.2-0.3	2	1	1
092	TP46 0.5-0.6	2	1	1
093	TP47 0.2-0.3	2	1	1
094	TP47 0.5-0.6	2	1	1
095	TP48 0.2-0.3	2	1	1
096	TP48 0.5-0.6	2	1	1

CONTINUED OVERLEAF

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Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Client Geotechnique

Project 8599-28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
097	TP49 0.2-0.3	2	1	1
098	TP50 0.2-0.3	2	1	1
099	TP50 0.5-0.6	2	1	1
100	TP51 0.2-0.3	2	1	1
101	TP51 0.5-0.6	2	1	1
102	TP52 0.2-0.3	2	1	1
103	TP52 0.5-0.6	2	1	1
104	TP53 0.2-0.3	2	1	1
105	TP53 0.5-0.6	2	1	1
106	TP54 0.2-0.3	2	1	1
107	TP54 0.5-0.6	2	1	1
108	TP55 0.2-0.3	2	1	1
109	TP55 0.5-0.6	2	1	1
110	TP56 0.2-0.3	2	1	1
111	TP56 0.5-0.6	2	1	1
112	TP57 0.2-0.3	2	1	1
113	TP57 0.5-0.6	2	1	1
114	TP58 0.2-0.3	2	1	1
115	TP59 0.5-0.6	2	1	1
116	TP59 0.2-0.3	2	1	1
117	TP58 0.5-0.6	2	1	1
118	TP60 0.2-0.3	2	1	1
119	TP60 0.5-0.6	2	1	1
120	TP61 0.2-0.3	2	1	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE196386

CLIENT DETAILS

Client Geotechnique

Project 8599-28 Elara Boulevard, Marsden Park

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Soil	Moisture Content	pH in soil (1:5)
121	TP61 0.5-0.6	2	1	1
122	TP62 0.2-0.3	2	1	1
123	TP62 0.5-0.6	2	1	1
124	TP63 0.2-0.3	2	1	1
125	TP63 0.5-0.6	2	1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .