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Preliminary Waste Classification and Virgin Excavated Natural Material Report

Report Reference	14777-ER-2-1	Report Date	24/08/2022
Client	Ausgrid		
Client project name	Alexandria to Kingsford Cable Project (A2K)		
Site address	Various Streets between Burrows Road, Alexandria to Anderson Street, Kingsford NSW as per Appendix B.		
Lot and DP	NA (Public Roads)		
Definition of virgin excavated natural material (VENM)	The Protection of the Environment Operations Act 1997 VENM as: 'natural material (such as clay, gravel, sand, soil or rock fines): that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining of agricultural activities, and that does not contain any sulfidic ores or soils or any other waste, and includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved for the time being pursuant to an EPA Gazettal notice'.		
Location, quantity and history of material	A2K Alignment – Linear in-situ materials approximately 5.5km long, to nominal depths ranging from 2m to 10m in depth, commencing along Burrows Road, Alexandria and ending along Anderson Street, Kingsford to be excavated during new underground 132kV cable construction works. Refer to Appendix B for a site layout plan		
Geology	The New South Wales Seamless Geology dataset, version 2.1 [Digital Dataset] published by the Geological Survey of New South Wales indicates that the western extend of the site is underlain by Estuarine deposits which may contain fine- to medium-grained lithic-carbonate-quartz sand (marine-deposited), silt, clay, organic mud, peat, gravel, and shell material. The central to eastern extend of the site is underlain by Coastal deposits – dune facies characterised by marine-deposited and aeolian-reworked coastal sand dunes.		
EPA Public Registers	A search of the NSW EPA online contaminated land record of notices indicated that the nominated sampling points (and land located immediately adjacent to the site) was not the subject of: • orders made under Part 3 of the Contaminated Land Management (CLM) Act 1997; • notices available to the public under section 58 of the CLM Act • an approved voluntary management proposal under the CLM Act that has not been fully carried out and where NSW EPA approval has not been revoked; • site audit statements provided to the NSW EPA under section 53B of the CLM Act that relate to significantly contaminated land; • where practicable, copies of anything formerly required to be part of the public record; or		

	• actions taken by NSW EPA (or the previous State Pollution Control Commission) under section 35 or 36[1] of the Environmentally Hazardous Chemicals Act 1985. A search of the NSW EPA online POEO public register indicated that the nominated sampling points (and land located immediately adjacent to the site) was not the subject of a licence, application, notice, audit, pollution study or reduction program, with the exception of: • Adjacent BH01 - (License no. 3140) Fulton Hogan Industries Pty Ltd at 40-42 Burrows Road, Alexandria, Activity type: Bitumen pre-mix or hot-mix production, license status: 'no longer in force', Pollution incident: No; • Adjacent BH01 - (License no. 1108) AUSTRALIAN REFINED ALLOYS PTY LTD at 202-212 Euston Road, Alexandria, Activity type: non-thermal treatment of hazardous and other waste, Non-ferrous metal production (scrap metal), Recovery of hazardous and other waste. Waste storage – hazardous, restricted solid, liquid, clinical and related waste and asbestos waste, license status: Surrendered, Pollution incident: No. Current Environmental Risk Level: Level 1. • Adjacent BH02 - (License no. 6941) FUJI XEROX AUSTRALIA PTY. LIMITED at 546 Gardeners Road, Alexandria, Activity type: Hazardous, Industrial or Group A Waste Generation or Storage, license status: Surrendered. A search of the NSW EPA online list of NSW contaminated sites notified to NSW EPA indicated that the nominated sampling points (and land located immediately adjacent to the site) was not on the list, with the exception of: • Adjacent BH01 - AUSTRALIAN REFINED ALLOYS PTY LTD at 202-212 Euston Road, Alexandria, Regulation under CLM Act not required. A copy of the search records is presented in Appendix D.
Historical Aerial Imagery	A selection of readily available online historical aerial imagery (from 2009 to 2022) was reviewed. The review indicated that land uses along the proposed alignment during that period, have been a public road (commercial/industrial).
Anecdotal Evidence	No anecdotal evidence was made available to Alliance.
Potential land contaminating activities associated with the site	Online searches indicate potential for uncontrolled filling, former commercial / industrial sites adjacent to the proposed alignment.
Are sulfidic ores or soils present?	A review of https://www.environment.nsw.gov.au/eSpade2Webapp indicated that the nominated sampling points BH01, BH02, BH05, BH06 and BH07 are located in an area mapped as: • X4: disturbed terrain and sampling points BH08 to BH22 are in an area mapped as: • N: no known occurrence Alliance notes that BH11, BH12, BH13 and BH22 were requested to be investigated to depth ranging 6m to 10m below surface level. The termination depth of the drilled boreholes would comprise an RL<10m and may encounter ASS and/or PASS. Further assessment of ASS, PASS or sulfidic ore risk is considered warranted for sampling points BH01, BH02, BH05, BH06, BH07, BH11, BH12, BH13 and BH22.

[1] Sections 35 and 36 of the Environmentally Hazardous Chemicals Act 1985 have been repealed. Notices under these sections are treated by the CLM Act as management orders.

Sampling and Analytical Plan	Refer to Appendix A and Appendix B

FIELDWORK	
Description of the material	A copy of the borehole field logs is presented in Appendix F.
Photographs of the fill (left) and natural (right) material at BH01	
Photographs of the fill (left) and natural (right) material at BH07	
Photographs of the fill (left) and natural (right) material at BH21	

RESULTS	
Data Quality Indicator Assessment	Refer to Appendix A
Laboratory Analytical Results Assessment	Laboratory documentation is presented in Appendix D. The sample identifiers, sample depths, analytes and analytical results have been tabulated and are presented in Appendix C.
Acid Sulfate Soils	BH10, BH11 and BH12 - The pHF analytical results were greater than the preliminary 'actual acid sulfate soils' screening criterion of pH<4, indicating that actual acid sulfate soils are unlikely to be present in the soils assessed. The pHFox analytical results were greater than the preliminary 'potential acid sulfate soils' screening criterion of pH<3.5. The samples analysed did not report a hydrogen peroxide reaction as 'strong/high' or 'extreme / vigorous'. These results indicate that potential acid sulfate soils are unlikely to be present in the soils assessed. BH02, BH05, BH06, BH13 - The sulfur trail and acid trail analytical results were less than the relevant action criteria in Table 5.4 of Sullivan et al (2018), based on the soil texture observed during fieldwork, and the quantity of material being disturbed. BH01 & BH07 - The sulfur trail and acid trail analytical results exceeded the relevant action criteria in Table 5.4 of Sullivan et al (2018), based on the soil texture observed during fieldwork, and the quantity of material being disturbed. Alliance notes that this assessment was preliminary in nature and a detailed Acid Sulfate Soil Assessment is required to adequately assess the in-situ materials along the proposed alignment.
Asbestos	Asbestos was detected at the laboratory limit of reporting in samples BH02 (0.2-0.3)m, BH02 (1.2-1.3)m and BH02 (1.5-1.6)m. Asbestos was not selected in any of the other samples tested. Alliance notes that this assessment is preliminary in nature and comprised twenty-two (22) sampling points across a 5.5km long proposed alignment. Therefore, the presence of asbestos in soils along the proposed alignment cannot be precluded.

SIX STEP WASTE CLASSIFICATION PROCESS [2]	
Step 1	The fill materials sampled from sampling point BH02 is considered to be special waste (asbestos). The analytical laboratory reported the presence of chrysotile and crocidolite asbestos in the form of loose fibres bundles. The fill materials sampled from BH01 and from BH03 to BH22 is not considered to be special waste. The analytical laboratory did not report the presence of fibre bundles / loose fibres of asbestos in the samples analysed from BH01 and from BH03 to BH22.
Step 2	The fill material is not considered to be a liquid waste.
Step 3	The fill material is not considered to be pre-classified.

[2] NSW EPA (2014a)

Step 4	The fill material is not considered to possess hazardous characteristics.
Step 5	The detected concentrations of analytes in the fill material samples analysed, were less than the relevant CT1 values in Table 1 of NSW EPA (2014a) and the relevant TCLP1 and SCC1 values in Table 2 of NSW EPA (2016), with the exception of: • lead in samples BH2 (0.2-0.3) (120mg/kg, CT1 value of 100mg/kg), BH2 (1.2-1.3) (200mg/kg, CT1 value of 100mg/kg) and BH2 (1.5-1.6) (130mg/kg, CT1 value of 100mg/kg); • nickel in sample A2KBH01(0.7_0.9M) (68mg/kg, CT1 value of 40mg/kg) and BH19 (0.3-0.4 M) (46mg/kg, CT1 value of 40mg/kg); • benzo(a)pyrene in samples BH2 (0.2-0.3) (2mg/kg, CT1 value of 0.8mg/kg), BH2 (1.2-1.3) (3.5mg/kg, CT1 value of 3.2mg/kg) and BH2 (1.5-1.6) (1mg/kg, CT1 value of 0.8mg/kg), BH6 (0.2-0.3) (57mg/kg, CT2 value of 3.2mg/kg and SCC2 value of 23mg/kg), BH9 (0.3-0.4 M) (27mg/kg, CT2 value of 3.2mg/kg and SCC2 value of 23mg/kg), BH16 (0.2-0.3 M) (120mg/kg, CT2 value of 3.2mg/kg and SCC2 value of 23mg/kg), BH17(0.4-0.6.) (4.9mg/kg, CT2 value of 3.2mg/kg), BH17(0.7-0.9.) (14mg/kg, CT2 value of 3.2mg/kg and SCC1 value of 10mg/kg), BH20(0.3-0.4.) (1.9mg/kg, CT1 value of 0.8mg/kg), BH21(0.3-0.4.) (8.8mg/kg, CT2 value of 3.2mg/kg), BH21(0.4-0.6) (5.3mg/kg, CT2 value of 3.2mg/kg); and • Total PAHs in samples BH6 (0.2-0.3) (760mg/kg, SCC1 value of 200mg/kg), BH9 (0.3-0.4 M) (410mg/kg, SCC1 value of 200mg/kg), BH16 (0.2-0.3 M) (1500mg/kg, SCC2 value of 800mg/kg), and BH17(0.7-0.9.) (210mg/kg, SCC1 value of 200mg/kg. All of the above samples were subjected to lead, nickel and benzo(a)pyrene TCLP[3] analysis and the detected concentration was less than the relevant TCLP1 value in Table 2 of NSW EPA (2014a).
Step 6	The material is not considered to be putrescible.

VIRGIN EXCAVATED NATURAL MATERIAL ASSESSMENT	
Organics	The concentration of TRH, BTEX, PAH, OCP and PCB in the natural material samples analysed were less than the laboratory's limit of reporting, with the exception of natural samples collected from BH05, BH6, BH8, BH9, BH15, BH17 and BH21 where trace levels of PAH's and TRH's were detected.
Metals	The concentration of arsenic, cadmium, chromium, copper, lead, nickel and zinc were within the relevant background ranges for these metals, presented in Berkman D A (1989). The laboratory's LOR for mercury was 0.1mg/kg. This value is marginally higher than the background range for mercury published in Berkman D A (1989). However, given that the concentrations of other metals in the samples analysed were within relevant background ranges, Alliance considers the potential for mercury to be present in the material assessed, and associated with manufactured chemicals or process residues as a result of industrial, commercial, mining or agricultural activities, to be low. However, we note that natural materials assessed within borehole BH01 detected mercury at concentrations of 1.7mg/kg.

[3] Toxicity Characteristic Leaching Procedure

PRELIMINARY WASTE / MATERIAL CLASSIFICATION
Based on an assessment of desktop review data, fieldwork observations and laboratory analytical data: • the fill material assessed within borehole BH02 as at the time of this report would classify as **Special Waste (asbestos) as General Solid Waste (non-putrescible).** Based on laboratory analytical data, in the context of handling and removal works, Alliance considers that the asbestos would be deemed friable. • the fill material assessed within boreholes BH01, BH07, BH08, BH10, BH11, BH12, BH13, BH14, BH15, BH17 (0.1m-0.7m), BH18, BH19, BH20, BH21 (0.1m to 0.9m), BH22 as at the time of this report would classify as **General Solid Waste (non-putrescible)** • the soil material assessed within boreholes BH06 (0.05m-0.4m), BH09 (0.1m-0.5m) and BH16 (0.1m-0.6m) as at the time of this report would classify as **Hazardous Waste**. • the fill material assessed within borehole BH17 (0.7m-1.2m), as at the time of this report would classify as **Restricted Solid Waste.** • The natural materials assessed within boreholes BH01 and BH07 as at the time of this report would classify as **General Solid Waste (non-putrescible)/ Untreated Acid Sulfate Soils.** • the natural material assessed within BH10, BH12, BH13, BH14, BH16, BH18, BH19, BH20 and BH21 as at the time of this report would classify as **Virgin Excavated Natural Material (VENM)**. • the natural material assessed within BH02, BH05, BH06, BH08, BH09, BH11, BH15, BH17 and BH22 as at the time of this report would classify as **General Solid Waste (non-putrescible).** This classification must be read in conjunction with the attached Information About This Report. Alliance notes that the above waste/ material classification is preliminary in nature. For the purposes of offsite disposal, further assessment and classification will be required. For future waste classifications along the proposed alignment, Silica Gel clean-up testing may be required for natural samples with trace TRH concentrations, in order to assess if the detections are related to petroleum-based hydrocarbons and/or naturally occurring hydrocarbons.

REFERENCES
AS 4482.1-2005 'Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds' dated November 2005. AS 4482.2-1999 'Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile substances' dated September 1999. Berkman D A 1989, 'Field Geologist's Manual, Third Edition' published by The Australasian Institute of Mining and Metallurgy. DUAP 1998, 'Managing Land Contamination Planning Guidelines SEPP55 – Remediation of Land', dated April 1999, ref: 98/65. EPA VIC 2009 'Industrial Waste Resource Guidelines' dated June 2009, ref: IWRG702. National Environment Protection Council (NEPC) 2013, 'Schedule B(2) Guideline on Site Characterisation', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013. NSW DPIE 2021, 'State Environmental Planning Policy (Resilience and Hazards) 2021' NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines' dated September 1995, ref: EPA 95/59 NSW EPA 2014a, 'Waste Classification Guidelines – Part 1: Classification of waste' dated November 2014, ref: EPA 2014/0796 SafeWork NSW 2019, 'Code of Practice, How To Safely Remove Asbestos' dated August 2019 WorkCover NSW 2014, 'Managing asbestos in or on soil', dated March 2014

For and on behalf of Alliance Geotechnical Pty Ltd

Mehran Asadabadi
Senior Environmental Consultant

Attached

Important Information About This Report
Appendix A - Sampling Plan and Data Quality Indicator Assessment
Appendix B – Site and Sampling Point Layout Plan
Appendix C – Sample Data and Analytical Results Summary Table
Appendix D – Chain of Custody, Sample Receipt and Certificates of Analysis
Appendix E – NSW EPA Online Public Register Search Records
Appendix F - Logs

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This report must be reviewed in its entirety and in conjunction with the objectives, scope and terms applicable to Alliance's engagement. The report must not be used for any purpose other than the purpose specified at the time Alliance was engaged to prepare the report.

The findings presented in this report are based on specific data and information made available during the course of this project. To the best of Alliance's knowledge, these findings represent a reasonable interpretation of the general condition of the site at the time of report completion.

No warranties are made as to the information provided in this report. All conclusions and recommendations made in this report are of the professional opinions of personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to personnel and which may impact on those opinions is not the responsibility of Alliance.

Logs, figures, and drawings are generated for this report based on individual Alliance consultant interpretations of nominated data, as well as observations made at the time fieldwork was undertaken.

Data and/or information presented in this report must not be redrawn for its inclusion in other reports, plans or documents, nor should that data and/or information be separated from this report in any way.

Should additional information that may impact on the findings of this report be encountered or site conditions change, Alliance reserves the right to review and amend this report.

Appendix A - Sampling Plan and Data Quality Indicator Assessment

SAMPLING PLAN	
Fieldwork dates	25 May 2022 to 13 July 2022
Fieldwork team	Aaron Hong and Carlos Constantinou
Sampling point locations	Sampling point locations are presented in Appendix B.
Rationale for sampling pattern	IN-SITU LINEAR – The sampling pattern for the in-situ materials was preliminary in nature and sampling points were nominated by the client. However, this assessment was preliminary in nature.
Rationale for sample collection and analytical quantities	IN-SITU LINEAR (Waste) – A minimum of 26 samples will be collected, based on depth of waste being assessed. IN-SITU LINEAR (VENM) – A minimum of 20 samples will be collected, based on depth of material being assessed.
Material sampling method	Samples will be collected from boreholes using a drilling rig. A fresh pair of nitrile gloves will be used to collect each sample. Samples will be placed in laboratory prepared containers and bags, each labelled with the project number, date, sampling point identifier, and sample depth identifier. Samples will be stored in an insulated container with ice. Recommended holding times will be considered when arranging sample transport to the analytical laboratory. Field duplicates and triplicates will be collected at a rate of 5%. A rinsate blank will be collected when non disposable sampling equipment is used. A trip spike and trip blank will be kept with the samples during storage and transport.
Material sample collection depths	INSITU – The first sample will be collected at the surface, then at regular depths thereafter, targeting visual or olfactory signs of contamination, to the target depth of assessment.
Rationale for lab selection, analytical suite and analytical data quality	NATA accredited laboratories will be used for sample analysis, adopting limits of reporting (LOR) that are less than adopted assessment criteria. Based on the potential land contaminating activities associated with the site and consideration being given to Appendix A in DUAP (1998), the following range of analytes have been selected: TRH, BTEX, PAH, OCP, PCB, metals and asbestos. Laboratory data quality will be checked by assessing holding time compliance, and the results of analysis on method blanks, control samples, spike samples and duplicates.

Completeness DQI			
Field Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Experienced sampling team used	Yes	Yes	Pass
Sampling devices and equipment set out in sampling plan were used.	Yes	Yes	Pass
Critical locations in sampling plan, sampled.	Yes	No	Comment – Due to the preliminary nature of the waste classification, the minimum density of samples was not met. Further investigation required.
Critical samples in sampling plan, collected.	Yes	No	Comment – Due to the preliminary nature of the waste classification, the minimum density of samples was not met. Further investigation required.
Completed field logs attached.	Yes	Yes	Pass
Completed chain of custody attached.	Yes	Yes	Pass
Laboratory	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Complete sample receipt advice and chain of custody attached	Yes	Yes	Pass
Critical samples identified in sampling plan, analysed	Yes	Yes	Pass
Analysis undertaken addresses COPC in sampling plan.	Yes	Yes	Pass
Analytical methods reported in laboratory documentation and appropriate limit of reporting used.	Yes	No	Comment – the analytical laboratory advised that the limit of reporting (LOR) for TRH, OCP and PCB in multiple soil samples was raised due to matrix interference. However, the raised LOR was less than the screening criteria adopted for TRH, OCP and PCB in soils. Performance against this DQI is considered adequate.
Sample holding times met.	Yes	Yes	Pass

Comparability			
Laboratory Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Same sampling team used for all work.	Yes	Yes	Pass
Weather conditions suitable for sampling.	Yes	Yes	Pass
Same sample types collected and preserved in same way.	Yes	Yes	Pass
Relevant samples stored in insulated containers and chilled.	Yes	Yes	Pass
Laboratory Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Same laboratory used for all analysis.	Yes	Yes	Pass

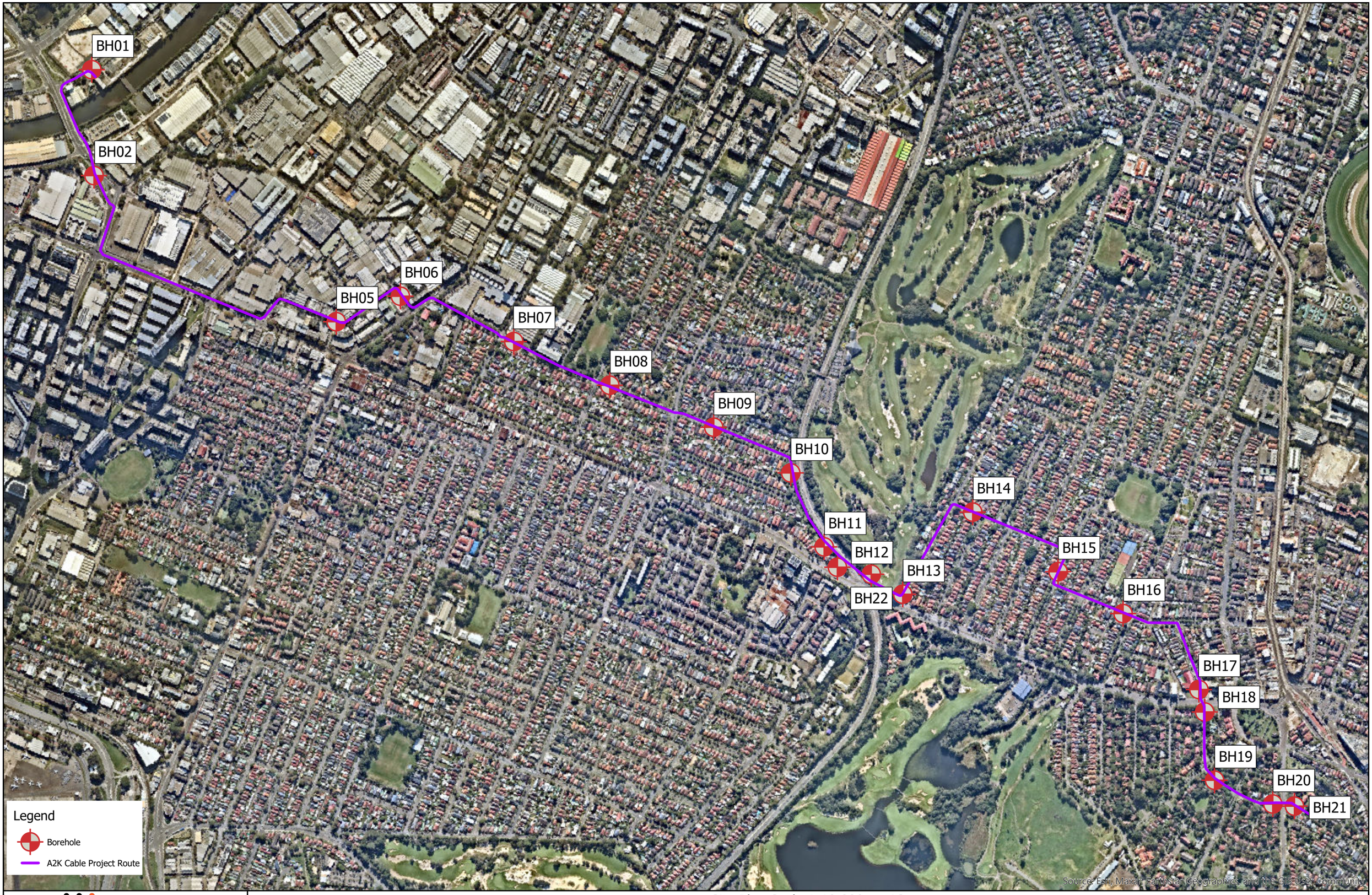
Comparable methods if different laboratories used.	Not applicable	n/a	n/a
Comparable limits of reporting if different laboratories used.	Not applicable	n/a	n/a
Comparable units of measure if different laboratories have been used.	Not applicable	n/a	n/a

Representativeness			
Field Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Media identified in sampling plan, sampled.	Yes	Yes	Pass
Samples required by sampling plan, collected.	Yes	Yes	Pass
Laboratory Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Samples identified in sampling plan, analysed.	Yes	Yes	Pass

Precision			
Field Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Minimum 5% duplicates and triplicates collected and analysed.	Yes	No	Comment – Sampling was undertaken using industry accepted procedures. Laboratory analysis was undertaken by reputable NATA accredited environmental laboratories. Analytical results were within expected ranges based on site history, field observations and experience on comparable projects. Performance against this DQI is considered adequate.
RPD unlimited where detected concentrations are <10 times the limit of reporting.	n/a	n/a	n/a
RPD within 50% where detected concentrations are 10-20 times the limit of reporting.	n/a	n/a	n/a
RPD within 30% where detected concentrations are >20 times the limit of reporting.	n/a	n/a	n/a
Laboratory Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
All laboratory duplicate RPDs within laboratory acceptance criteria.	Yes	No	Comment – twenty-seven analytes (Arsenic, Copper, zinc, lead, nickel, PAHs) recorded results outside of the recommended acceptance criteria. However, the RPD reported passes the primary laboratory testing's QC-Acceptance Criteria. Performance against this DQI is considered adequate.

Bias (Accuracy)			
Field Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Trip blank analyte results less than limit of reporting.	Yes	No	Comment - A trip blank was not used for this project. The detected concentrations of BTEX in the samples analysed were less than the laboratory limit of reporting. The risk of volatile cross contamination of samples during storage and transport, is therefore considered to be negligible. Performance against this DQI is considered adequate.
Trip spike analyte results less between 60% and 140%.	Yes	No	Comment - A trip spike was not used for this project. No evidence of odour or staining was observed in the samples collected. The samples were placed in laboratory prepared containers with minimal headspace, and stored in an insulated container with ice, The risk of loss of volatiles during storage and transport is considered to be negligible. Performance against this DQI is considered adequate.
Rinsate blank analyte results less than limit of reporting.	Yes	No	Comment - A rinsate blank was not used for this project. Re-usable sampling equipment was not used for this project. The samples were collected either directly from the base/wall of the test pits, or from the centre of the soils in the excavator bucket, using a fresh pair of nitrile gloves for each sample. The risk of cross contamination during sampling is considered to be negligible. Performance against this DQI is considered adequate.
Laboratory Considerations	*Target Criterion*	*Result*	*Pass / Fail / Comment*
Laboratory method blank results within laboratory acceptance limits.	Yes	Yes	Pass
Laboratory control sample results within laboratory acceptance limits.	Yes	Yes	Pass
Laboratory spike sample results within laboratory acceptance limits.	Yes	Yes	Pass

Appendix B – Site and Sampling Point Layout Plan



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Site Plan Scale 1:10,000 on A3

Client Name:	Ausgrid	Figure Number:	1
Project Name:	Underground Cable Projects	Figure/Drawing Date:	18/08/2022
Project Location	Alexandria NSW 2015 to Kingsford NSW 2032	Report Number:	14777-ER-2-1

N 0 300
Meters

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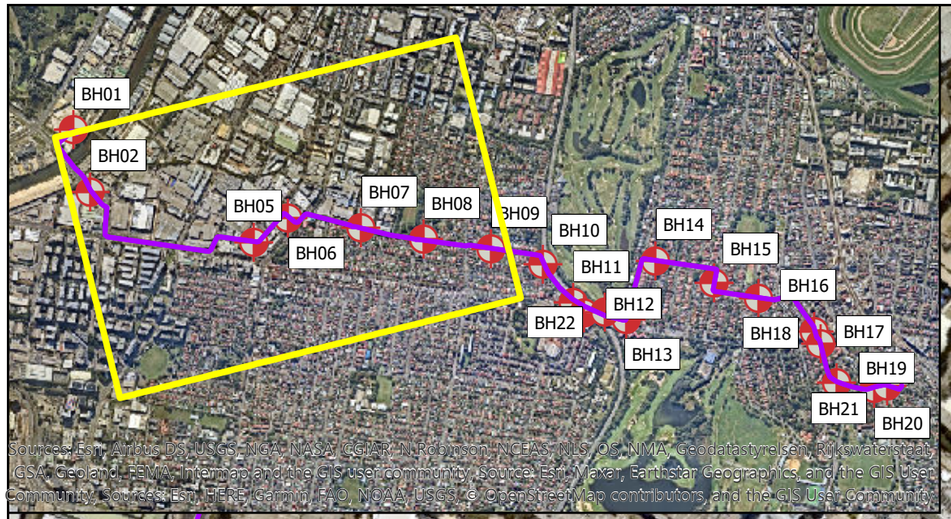
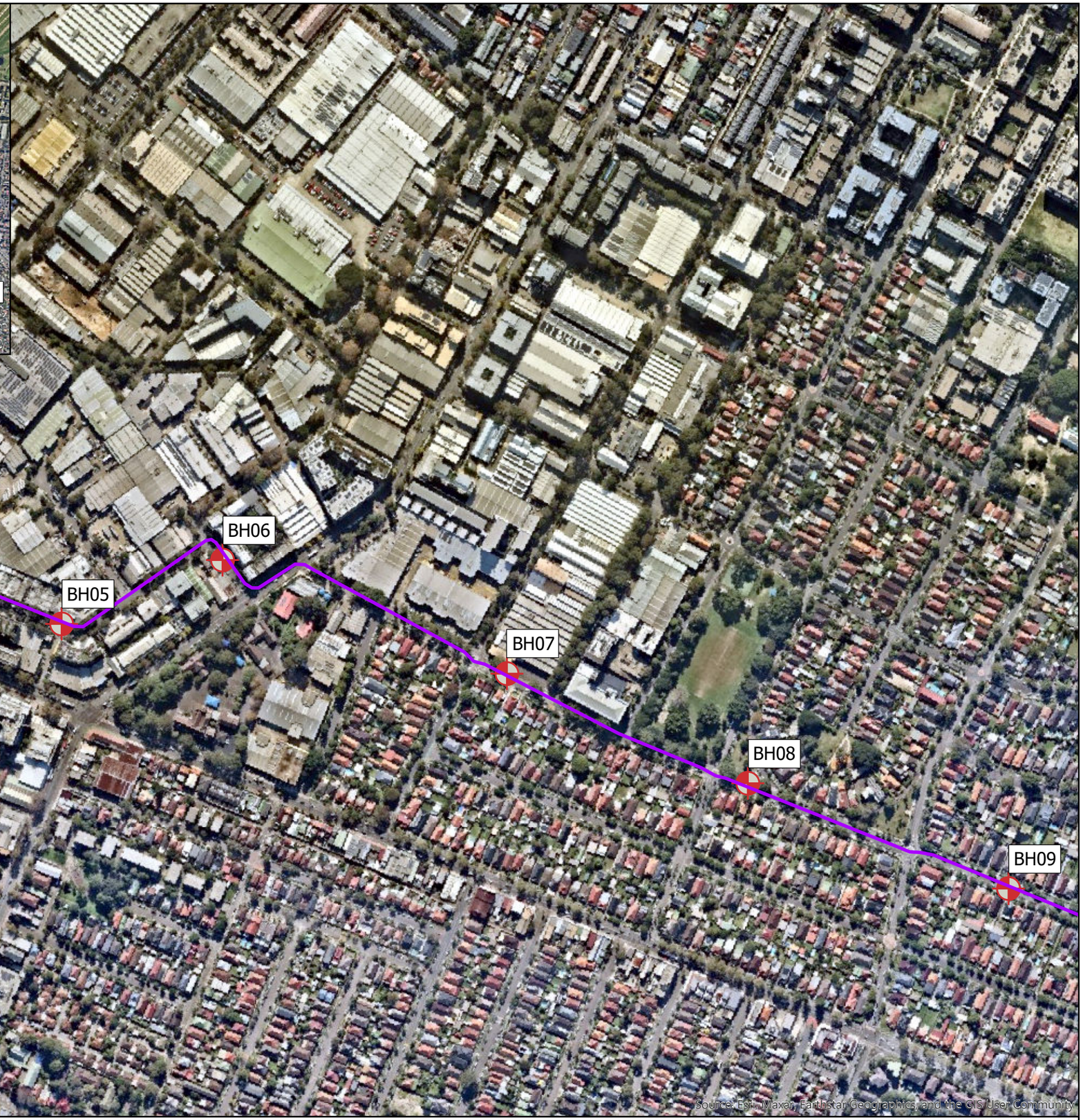
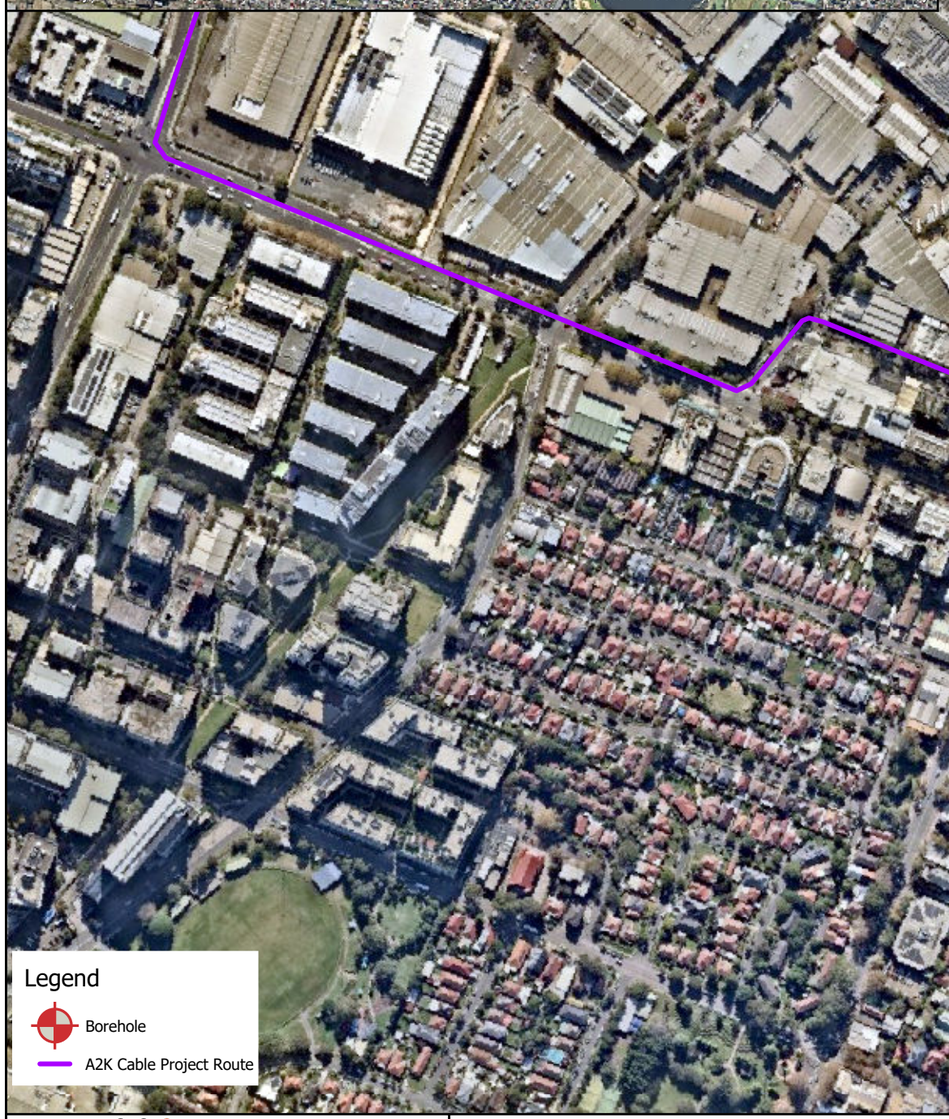
Site Plan Scale 1:5,000 on A3

Client Name:	Ausgrid	Figure Number:	2
Project Name:	Underground Cable Projects	Figure/Drawing Date:	18/08/2022
Project Location	Alexandria NSW 2015 to Kingsford NSW 2032	Report Number:	14777-ER-2-1

N 0 150 Meters







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Site Plan Scale 1:5,000 on A3

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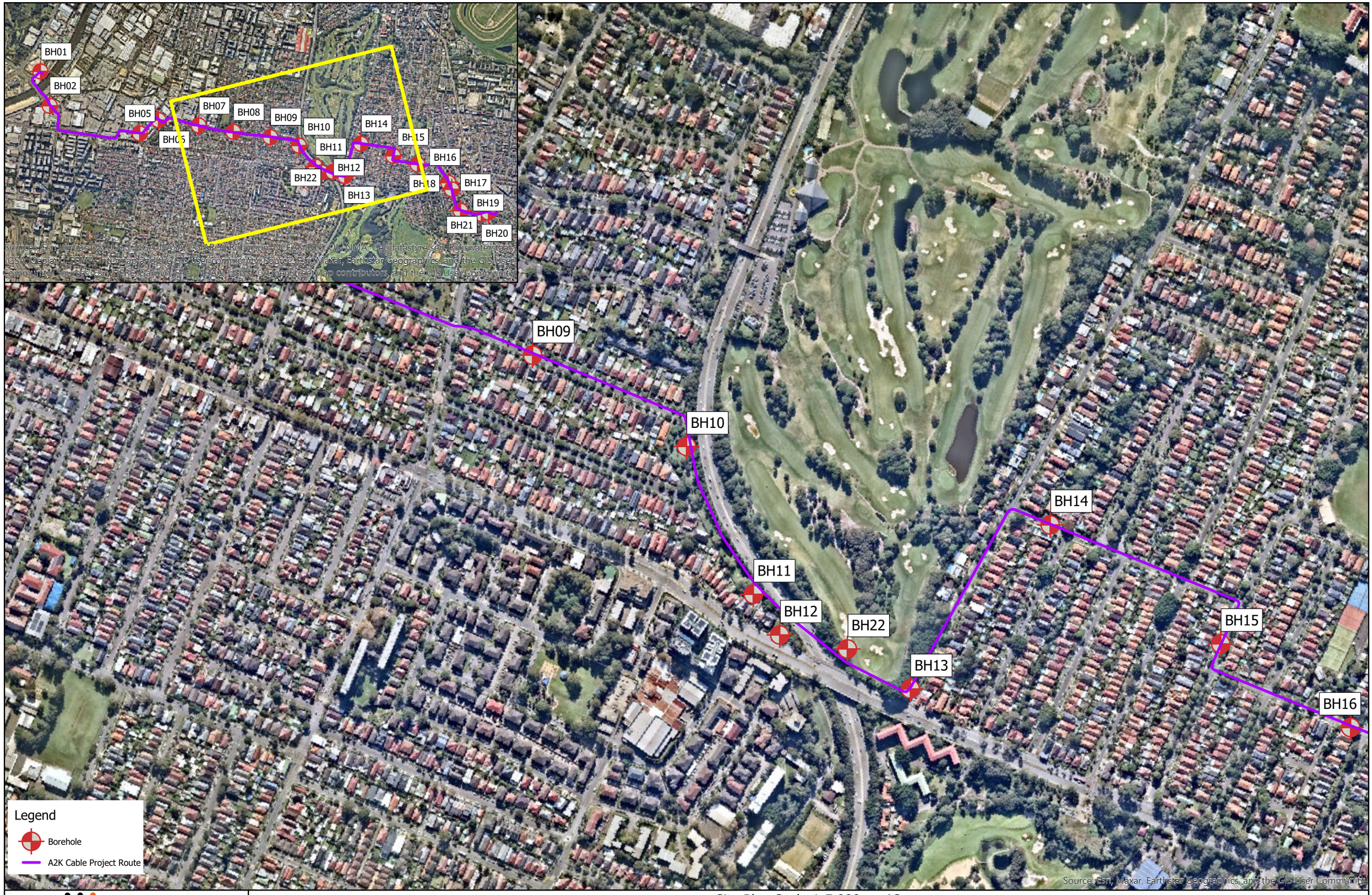
Project Name:	Underground Cable Projects	Figure/Drawing Date:	18/08/2022
Project Location	Alexandria NSW 2015 to Kingsford NSW 2032	Report Number:	14777-ER-2-1

N 0 150
Meters



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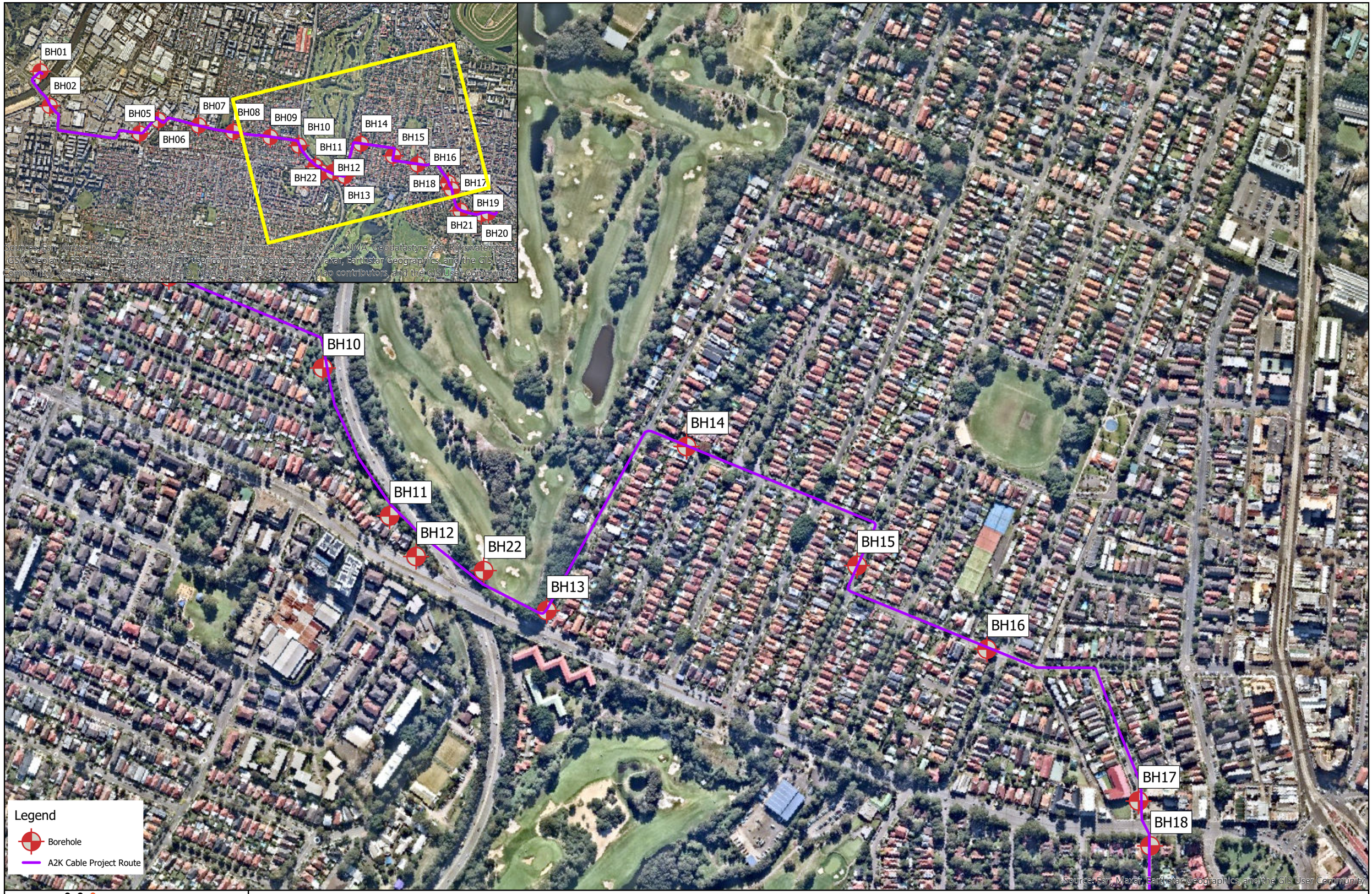
Site Plan Scale 1:5,000 on A3				
Client Name:	Ausgrid	N 0 150 Meters	Figure Number:	2
Project Name:	Underground Cable Projects		Figure/Drawing Date:	18/08/2022
Project Location	Alexandria NSW 2015 to Kingsford NSW 2032		Report Number:	14777-ER-2-1



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Site Plan Scale 1:5,000 on A3

Client Name:	Ausgrid	Figure Number:	2
Project Name:	Underground Cable Projects	Figure/Drawing Date:	18/08/2022
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Site Plan Scale 1:5,000 on A3

Client Name:	Ausgrid	Figure Number:	2
Project Name:	Underground Cable Projects	Figure/Drawing Date:	18/08/2022
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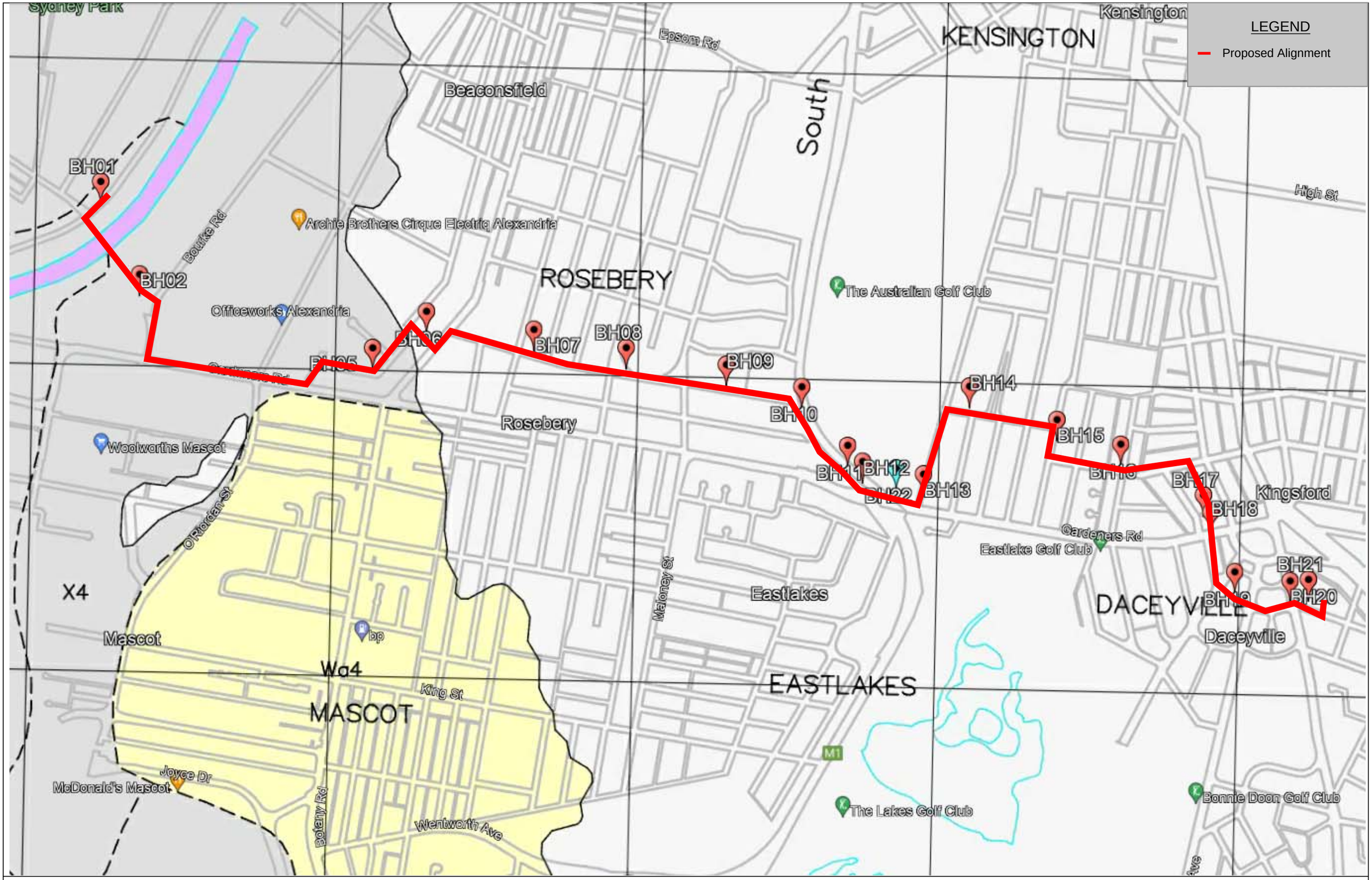
N 0 150 Meters



ASS Maps

alliance	Client Name:	Ausgrid	Figure / Drawing Number:	3
	Project Name:	Underground Cable Projects	Figure / Drawing Date:	18/08/2022
	Project Location:	Alexandria NSW 2015 to Kingsford NSW 2032	Report Number:	14777-ER-2-1

N

Appendix C – Sample Data and Analytical Results Summary Table

Table 1
Ausgrid - A2K
Waste Assessment Results - Metals, PAHs, TRH, BTEX, OCP, OPP, ASB
14777-ER-2-1

Group	Analyte	Units	PQL	Ambient Range MAX	GSW Criteria CT1	GSW Criteria CT2	GSW Criteria SCC1 / TCLP1	RSW Criteria SCC2 / TCLP2	DATASET AVERAGE	DATASET MINIMUM	DATASET MAXIMUM	A2KBH01(0.3_0.4M)	A2KBH01(0.7_0.9M)	BH2 (0.2-0.3)	BH2 (1.2-1.3)	BH2 (1.5-1.6)	BH5 (0.4-0.7)	BH5 (0.8-0.9)	BH6 (0.2-0.3)	BH6 (0.4-0.5)	BH6 (1.0-1.1)	BH7 (0.3-0.4)	BH7 (0.6-0.7)	BH8 (0.3-0.4 M)	BH8 (0.8-0.9 M)	BH9 (0.3-0.4 M)	BH9 (0.5-0.6 M)	A2KBH10(0_0.2M)	A2KBH10(0.6_0.8M)	A2KBH11(0.0-0.2M)	A2KBH11(0.3-0.5M)	A2KBH12(0.0-0.2M)	A2KBH12(0.5-0.7M)	BH13(0.1-0.3.)	BH13(0.5-0.6.)	BH13(1.5-1.7.)	BH14 (0.3-0.4 M)	BH14 (0.6-0.7 M)	BH15 (0.2-0.3 M)	BH15 (0.6-0.8 M)	BH16 (0.2-0.3 M)	BH16 (0.6-0.9 M)	BH17(0.4-0.6.)	BH17(0.7-0.9.)	BH17(1.2-1.5.)	BH18 (0.3-0.4 M)	BH18 (0.6-0.8 M)	BH19 (0.3-0.4 M)	BH19 (0.5-0.6 M)	BH20(0.3-0.4.)	BH20(0.4-0.5.)	BH20(1.4-1.5.)	BH21(0.3-0.4.)	BH21(0.4-0.6)	BH21(1.6-1.8.)	A2KBH22(0.0-0.2M)	A2KBH22(0.5-0.7M)
												S22-Jn0067137	S22-Jn0067138	S22-My0061946	S22-My0061947	S22-My0061948	S22-My0061953	S22-My0061954	S22-My0061959	S22-My0061960	S22-My0061961	S22-My0061966	S22-My0061967	S22-Jn0000580	S22-Jn0000581	S22-Jn0000582	S22-Jn0000583	S22-Jn0067146	S22-Jn0067147	S22-Jl0036905	S22-Jl0036906	S22-Jl0036921	S22-Jl0036922	S22-Jn0038585	S22-Jn0038586	S22-Jn0038587	S22-Jn0000584	S22-Jn0000585	S22-Jn0000586	S22-Jn0000587	S22-Jn0000588	S22-Jn0000589	S22-Jn0038576	S22-Jn0038577	S22-Jn0038578	S22-Jn0000590	S22-Jn0000591	S22-Jn0000592	S22-Jn0000593	S22-Jn0038579	S22-Jn0038580	S22-Jn0038581	S22-Jn0038582	S22-Jn0038583	S22-Jn0038584	S22-Jl0036943	S22-Jl0036944
												Fill	Natural	Fill	Fill	Fill	Natural	Narural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Fill	Natural	Fill	Natural	Fill	Natural	Fill	Natural	Natural	Fill	Natural	Natural	Fill	Fill
Metals	Arsenic	mg/kg	2	50	100	400	500	2,000	3.4	<2	74	<2	74	3	20	8.8	<2	<2	5.7	3.3	<2	2.2	<2	3.8	<2	2.9	<2	11	<2	<2	<2	<2	<2	<2	2.9	<2	<2	<2	<2	<2	<2	2.5	<2	<2	3.2	<2	<2	<2	<2	2.1	<2	2	<2	<2	3.7	6.2	3.7
	Cadmium	mg/kg	0.4	1	20	80	100	400	0.2	<0.4	6.6	<0.4	6.6	<0.4	0.4	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	Chromium	mg/kg	5	1000	100	400	1,900	7,600	8.1	<5	78	6.1	78	9.8	19	9.5	<5	<5	11	12	<5	<5	<5	6.2	<5	6	<5	9.1	<5	<5	<5	<5	<5	19	39	<5	5.7	<5	7.7	<5	12	<5	<5	<5	<5	<5	<5	7.3	<5	8.2	<5	68	9.3	5.4	6	<5	<5
	Copper	mg/kg	5	100	*	*	*	*	20.5	<5	100	25	82	62	56	42	9.3	<5	89	16	<5	10	<5	33	<5	80	<5	12	<5	<5	<5	12	<5	100	54	<5	18	<5	6.6	<5	62	<5	<5	<5	<5	<5	5.2	60	<5	22	<5	21	19	6.1	<5	11	<5
	Lead	mg/kg	5	200	100	400	1,500	6,000	26.0	<5	200	5.2	100	120	200	130	6.8	<5	52	9.9	<5	11	<5	22	<5	25	94	54	6	11	6.7	12	<5	11	12	<5	13	<5	47	<5	12	<5	10	<5	<5	<5	<5	<5	<5	93	45	8.3	12	13	<5	43	<5
	lead (leachate)	mg/L	5	*	*	*	5	20	-	-	-	-	-	0.02	0.15	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Mercury	mg/kg	0.1	0.03	4	16	50	200	0.1	<0.1	1.7	<0.1	1.7	<0.1	0.2	0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	3.2	<0.1
	Nickel	mg/kg	5	500	40	160	1,050	4,200	6.3	<5	68	<5	68	6.7	13	9	<5	<5	18	5.6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	<5	27	38	<5	<5	<5	<5	<5	20	<5	<5	<5	<5	<5	<5	46	<5	<5	<5	20	<5	<5	<5	<5	<5
	Nickel (leachate)	mg/L		*	*	*	2	8	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	-	-	-	-	-	-	-	-
	Zinc	mg/kg	5	300	*	*	*	*	29.5	<5	220	13	73	110	220	220	10	8.2	87	23	27	10	<5	19	<5	44	18	46	8.5	22	17	17	<5	51	42	<5	25	<5	17	<5	35	<5	<5	<5	<5	<5	<5	47	<5	39	6.7	<5	26	15	<5	18	<5
PAHS	Acenaphthylene	mg/kg	0.5	*	*	*	*	*	1.1	<0.5	26	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	26	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<2	<0.5	<1	<0.5	13	<0.5	2.5	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Acenaphthene	mg/kg	0.5	*	*	*	*	*	0.0	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.5	*	*	*	*	*	2.9	<0.5	45	<0.5	<0.5	0.8	1.7	<0.5	<0.5	<0.5	29	4.1	<0.5	<0.5	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<10	<0.5	<5	<0.5	<2	<0.5	45	<0.5	4	7.8	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	2.1	1.1	<0.5	<0.5	<0.5
	Benz(a)anthracene	mg/kg	0.5	*	*	*	*	*	5.7	<0.5	120	<0.5	<0.5	3.3	3.7	1.1	0.6	<0.5	61	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	29	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<20	<0.5	<20	<0.5	<20	<1	120	<0.5	4.7	14	<0.5	<0.5	<0.5	<0.5	<0.5	2	<0.5	<0.5	6.6	3.9	<0.5	<0.5	<0.5
	Benzo(a)pyrene	mg/kg	0.5	*	0.8	3.2	10	23	5.6	<0.5	120	<0.5	<0.5	2	3.5	1	0.8	<0.5	57	<5	0.6	<0.5	<0.5	<0.5	<0.5	27	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<50	<0.5	<50	<0.5	<20	<1	120	<1	4.9	14	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	8.8	5.3	<0.5	<0.5	<0.5
	Benzo(a)pyrene (leachate)	mg/L		*	*	*	0.04	0.16	-	-	-	-	-	<0.001	<0.001	<0.001	-	-	<0.001	-	-	-	-	-	-	<0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004	-	<0.001	<0.001	-	-	-	-	-	<0.001	-	-	<0.001	<0.001	-	-	-
	Benzo(a)pyrene TEQ (Low)	mg/kg	0.5	*	*	*	*	*	8.9	<0.5	190	<0.5	<0.5	2.9	4.7	1.3	1	<0.5	87	<5	0.8	<0.5	<0.5	<0.5	<0.5	50	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<0.5	<50	<0.5	<20	<1	190	<1	7.6	22	<0.5	<0.5	<0.5	<0.5	<0.5	3	<0.5	<0.5	13	8	<0.5	<0.5	<0.5
	Benzo(a)pyrene TEQ (Med)	mg/kg	0.5	*	*	*	*	*	9.4	<0.5	190	0.6	0.6	3.2	4.9	1.6	1.3	0.6	87	5.8	1.1	0.6	0.6	0.6	0.6	50	0.9	0.6	0.6	0.6	0.6	0.6	0.6	<5	<50	0.6	<50	0.6	<20	<1	190	<1	7.6	22	0.6	0.6	0.6	0.6	0.6	3	0.6	0.6	13	8	0.6	0.6	0.6
	Benzo(a)pyrene TEQ (High)	mg/kg	0.5	*	*	*	*	*	13.8	<0.5	190	1.2	1.2	3.4	5.2	1.8	1.5	1.2	87	12	1.3	1.2	1.2	1.2	1.2	50	1.2	1.2	1.2	1.2	1.2	1.2	1.2	<5	63	1.2	75	1.2	33	1.9	190	1.8	7.6	22	1.2	1.2	1.2	1.2	1.2	3	1.2	1.2	13	8	1.2	1.2	1.2
	Benzo(b&j)fluoranthene	mg/kg	0.5	*	*	*	*	*	4.8	<0.5	80	<0.5	<0.5	3	2.5	0.9	0.5	<0.5	49	<5	0.6	<0.5	<0.5	<0.5	<0.5	48	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<20	<0.5	<50	<0.5	<20	<1	80	<0.5	3.6	11	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	6.3	3.7	<0.5	<0.5	<0.5
	Benzo(g.h.i)perylene	mg/kg	0.5	*	*	*	*	*	3.6	<0.5	83	<0.5	<0.5	1	1.8	0.6	0.5	<0.5	35	<5	<0.5	<0.5	<0.5	<0.5	<0.5	18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<20	<0.5	<50	<0.5	<20	<0.5	83	<0.5	2.4	5.9	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	5.1	3.6	<0.5	<0.5	<0.5
	Benzo(k)fluoranthene	mg/kg	0.5	*	*	*	*	*	5.7	<0.5	130	<0.5	<0.5	1.4	3.2	0.7	0.7	<0.5	38	<5	0.5	<0.5	<0.5	<0.5	<0.5	52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<20	<0.5	<50	<0.5	<20	<1	130	<1	4	11	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	5.8	3.8	<0.5	<0.5	<0.5
	Chrysene	mg/kg	0.5	*	*	*	*	*	5.5	<0.5	120	<0.5	<0.5	2	4.1	0.9	0.7	<0.5	45	<5	0.5	<0.5	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<20	<0.5	<50	<0.5	<20	<1	120	<1	6.9	16	<0.5	<0.5	<0.5	<0.5	<0.5	2.8	<0.5	<0.5	9.2	5.9	<0.5	<0.5	<0.5
	Dibenz(a.h)anthracene	mg/kg	0.5	*	*	*	*	*	1.3	<0.5	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	12	<5	<0.5	<0.5	<0.5	<0.5	<0.5	6.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<10	<0.5	<5	<0.5	30	<0.5	1.2	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	2.1	1.2	<0.5	<0.5	<0.5
	Fluoranthene	mg/kg	0.5	*	*	*	*	*	13.0	<0.5	260	<0.5	<0.5	4.7	9.4	2.3	1.2	<0.5	140	6.6	1.6	<0.5	<0.5	<0.5	<0.5	57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<0.5	<5	<0.5	<50	<1	260	<2	15	41	<0.5	<0.5	<0.5	<0.5	<0.5	5.6	<0.5	0.5	17	9.4	<0.5	<0.5	<0.5
	Fluorene	mg/kg	0.5	*	*	*	*	*	0.6	<0.5	14	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	14	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.5	<1	<0.5	<0.5	<0.5	7.2	<0.5	2.4	3.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Indeno(1.2.3-cd)pyrene	mg/kg	0.5	*	*	*	*	*	3.1	<0.5	73	<0.5	<0.5	1	1.9	0.6	<0.5	<0.5	27	<5	<0.5	<0.5	<0.5	<0.5	<0.5	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<20	<0.5	<20	<0.5	<20	<0.5	73	<0.5	1.9	5.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	3.9	2.3	<0.5	<0.5	<0.5
	Naphthalene	mg/kg	0.5	*	*	*	*	*	0.2	<0.5	8.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	8.1	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Phenanthrene	mg/kg	0.5	*	*	*	*	*	6.4	<0.5	100	<0.5	<0.5	2.7	6.4	1.5	<0.5	<0.5	77	<0.5	1	<0.5	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<20	<0.5	<5	<0.5	<2	<0.5	100	<0.5	14	30	0.5	<0.5	<0.5	<0.5	<0.5	4.6	<0.5	<0.5	7.6	4.4	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.5	*	*	*	*	*	12.7	<0.5	250	<0.5	<0.5	4.1	8.7	2.2	1.6	0.5	140	6.9	1.7	<0.5	<0.5	<0.5	<0.5	53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<1	<50	<0.5	<50	<5	250	<2	14	39	<0.5	<0.5	<0.5	<0.5	<0.5	5.5	<0.5	0.5	19	12	<0.5	<0.5	<0.5
	Total PAH[1]	mg/kg	0.5	*	200	800	200	800	74.2	<0.5	1500	<0.5	<0.5	26	48	12	6.6	0.5	760	20	7.2	<0.5	<0.5	<0.5	<0.5	410	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<50	<1	<50	<0.5	<50	<5	1500	<2	82	210	0.5	<0.5	<0.5	<0.5	<0.5	29	<0.5	1	94	57	<0.5	<0.5	<0.5
Pesticides	DDT + DDE + DDD	mg/kg	0.05	D	*	*	*	*	<0.05	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	0.1	<0.05
	Aldrin and Dieldrin - Total	mg/kg	0.05	D	*	*	*	*	<0.05	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	0.06	<0.05
	Chlordane	mg/kg	0.05	D	*	*	*	*	<0.05	<0.05	<0.05	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<1	<1	<0.1	<0.3	<0.1
	Endosulfan - Total	mg/kg	0.05	D	60	240	108	432	<0.05	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05
	Endrin	mg/kg	0.05	D	*	*	*	*	<0.05	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05
	Heptachlor	mg/kg	0.05	D	*	*	*	*	<0.05	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05
	Hexachlorobenzene	mg/kg	0.05	D	*	*	*	*	<0.05	<0.05	<0.05	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05
	Methoxychlor	mg/kg	0.2	D	*	*	*	*	<0.2	<0.2	<0.2	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05
	Toxaphene	mg/kg	1	D	*	*	*	*	<1	<1	<1	<0.5	<0.05	<0.5	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5	<0.05	<0.05	<0.5	<0.5	<0.05	<0.05	<0.05
PCBs	Total PCBs	mg/kg	0.01	D	50	50	50	50	<0.01	<0.01	<0.01	<1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<0.1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<1	<1	<0.1	<0.1	<0.1
TRH/BTEX	Naphthalene	mg/kg	0.5	*	*	*	*	*	0.2	<0.5	9.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.7
	TRH C_6 - C_9	mg/kg	20	*	650	2600	650	2,600	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	TRH C_{10}-C_{36}	mg/kg	50	*	10,000	40,000	10,000	40,000	522.2	<50	6490	970	<100	120	327	139	78	<50	6490	<50	970	174	<50	1310	51	2060	<100	<50	<50	<50	<50	<50	<50	<2500	<2500	<50	2370	<50	1590	65	4040	<50	230	590	<50	<50	<50	<50	<50	110	<50	<50	810	482	<50	<50	<50
	Benzene	mg/kg	0.1	*	10	40	18	72	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Ethylbenzene	mg/kg	0.1	*	600	2400	1,080	4,320	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	m&p-Xylenes	mg/kg	0.2	*	*	*	*	*	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	o-Xylene	mg/kg	0.1	*	*	*	*	*	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Toluene	mg/kg	0.1	*	288	1152	518	2,073	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Xylenes - Total	mg/kg	0.3	*	1,000	4,000	1,800	7,200	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Asbestos	Asbestos Identification	% w/w	0.010%	D	Detect	Detect	Detect	Detect	-	-	-	ND	ND	D	D	D	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

UCL - *Upper Confidence Limit* | TEQ - *Toxicity Equivalent Quotient* | PAH - *Polycyclic Aromatic Hydrocarbons* | OCPs - *Organo-chlorine Pesticides* | OPPs - *Organo-phosphorus Pesticides* | PCBs - *Polychlorinated Biphenyls* | ACM - *Asbestos Containing Material* | AF/FA - *Asbestos Fines / Fibrous Asbestos*

NEPM Re-use criteria derived and compiled from NEPC 2013 Commercial / Industrial values for Health Investigation (HILs), Ecological Screening (ESLs), and Ecological Investigation (EILs) limits. Most conservative limits used.

1	**Total PAH is the sum of 16 USEPA priority PAHs**
2	**'Waste Classification Guidelines' - NSW EPA 2014**
*	**No currently available criterion**
**	**Minimum / Maximum Value**
-	**Not Calculated**
D / ND	**Detect / Non-Detect**

Concentration exceeding Ambient Range
Concentration exceeding General Solid Waste Criteria CT1
Concentration exceeding General Solid Waste Criteria CT2
Concentration exceeding General Solid Waste Criteria SCC1 / TCLP1
Concentration exceeding General Solid Waste Criteria SCC2 / TCLP2

Table 2
Ausgrid - A2K
Acid Sulfate Soil Laboratory Analytical Results Summary
14777-ER-2-1

Project	Borehole	Sample Idenfication/ Depth	pH F	pH FOX	pH Difference (pH F - pH FOX)	Strength of Reaction [1]	Titratable Actual Acidity (TAA)	Net Acidity (Sulfur Units)	Net Acidity (Acidity Units)	Liming Rate
			pH	pH	pH	mg/kg	mol H+/t	S %	mol H+/t	mol H+/t
Laboratory Results										
A2K	BH2 - Campbell Road	BH2 (0.5)	9.7	7.3	2.4	4	-	-	-	-
		BH2 (1.0)	9	7	2	4	-	-	-	-
		BH2 (1.5)	8.5	6.9	1.6	4	-	-	-	-
		BH2 (2.0)	6.9	3.5	3.4	4	<2	0.03	< 3	1
	BH5 - Birmingham St	BH5 (0.5)	8.8	8.7	0.1	4	-	-	-	-
		BH5 (1.0)	8.6	5.7	2.9	4	<2	<0.02	<10	<1
		BH5 (1.5)	5.9	4.9	1	4	-	-	-	-
		BH5 (2.0)	6	5	1	4	-	-	-	-
	BH6 - Gillespie Ave	BH6 (0.5)	8.9	7.3	1.6	4	-	-	-	-
		BH6 (1.0)	8.4	6.7	1.7	4	-	-	-	-
		BH6 (1.5)	6.3	5.4	0.9	4	-	-	-	-
		BH6 (2.0)	5.9	5.1	0.8	4	-	-	-	-
	BH7 - Harcourt Pde	BH7 (0.5)	6.7	4.8	1.9	4	-	-	-	-
		BH7 (1.0)	6.7	3.9	2.8	4	4	0.03	18	1
		BH7 (1.5)	6.1	3.6	2.5	4	32	0.09	57	4
		BH7 (2.0)	6.1	4.2	1.9	4	-	-	-	-
	BH13 - Tunsell Avenue	BH13 0.5	5	7.5	-2.5	3	<2	<0.02	<10	<1
		BH13 1.0	8.6	7.3	1.3	3	-	-	-	-
		BH13 1.5	7.1	6.6	0.5	2	-	-	-	-
		BH13 2.0	6.6	5.7	0.9	1				
		BH13 2.5	6.6	5.7	0.9	1	-	-	-	-
		BH13 3.0	6.3	5.4	0.9	1	-	-	-	-
		BH13 3.5	5.9	5.4	0.5	1	-	-	-	-
		BH13 4.0	6.1	5.3	0.8	1	-	-	-	-
		BH13 4.5	5.4	4.7	0.7	1	-	-	-	-
		BH13 5.0	5.9	5.6	0.3	1	-	-	-	-
		BH13 6.0	6.8	5.5	1.3	1	<2	<0.02	<10	<1
		BH13 7.0	5.7	5.2	0.5	1	-	-	-	-
		BH13 8.0	5.1	4.7	0.4	1	-	-	-	-
		BH13 9.0	5.7	4.8	0.9	1	-	-	-	-
		BH13 10.0	6	5.1	0.9	1	-	-	-	-
	BH01 - Burrows Road	A2KBH01(0.5M)	6.3	4.6	1.7	3	-	-	-	-
		A2KBH01(1M)	6	2.8	3.2	4	24	0.06	36	2.7
		A2KBH01(1.5M)	6.1	2.1	4	4	-	-	-	-
		A2KBH01(2M)	6	2.4	3.6	4	35	0.13	83	6.2
		A2KBH01(2.5M)	6.2	2.2	4	4	-	-	-	-
		A2KBH01(3M)	6	1.8	4.2	4	60	0.63	390	29
		A2KBH01(3.5M)	6.3	2.3	4	4	39	0.29	180	14
	BH10 - Southern Cross Drive reserve	A2KBH10(0.5M)	6.7	4.4	2.3	2	-	-	-	-
		A2KBH10(1M)	7	5.4	1.6	2	-	-	-	-
		A2KBH10(1.5M)	6.6	4.9	1.7	2	-	-	-	-
		A2KBH10(2M)	6.5	5.4	1.1	2	-	-	-	-
	BH22 - Australian Gold Course	A2KBH22(0.5M)	6.2	3.7	2.5	3	-	-	-	-
		A2KBH22(1.0M)	5.7	3.3	2.4	2	13	0.02	13	<1
		A2KBH22(1.5M)	5.6	3.2	2.4	1	4.1	<0.02	<10	<1
		A2KBH22(2.0M)	5.8	3.1	2.7	1	3.7	<0.02	<10	<1
		A2KBH22(2.5M)	5.4	3.7	1.7	1	-	-	-	-
		A2KBH22(3.0M)	5.5	4.6	0.9	1	-	-	-	-
		A2KBH22(3.5M)	5.7	4.1	1.6	1	-	-	-	-
		A2KBH22(4.0M)	5.5	4.3	1.2	1	-	-	-	-
		A2KBH22(4.5M)	5.4	4.2	1.2	1	-	-	-	-
		A2KBH22(5.0M)	5.2	4.5	0.7	1	-	-	-	-
		A2KBH22(5.5M)	5.4	4	1.4	1	-	-	-	-
		A2KBH22(6.0M)	5.4	4.1	1.3	1	-	-	-	-
		A2KBH22(6.5M)	5.3	4.5	0.8	1	-	-	-	-
		A2KBH22(7.0M)	5.5	4.4	1.1	1	-	-	-	-
		A2KBH22(7.5M)	5.5	4.3	1.2	1	-	-	-	-
		A2KBH22(8.0M)	5.8	4.6	1.2	1	-	-	-	-
		A2KBH22(8.5M)	5.8	4.5	1.3	1	-	-	-	-
		A2KBH22(9.0M)	5.6	4.5	1.1	1	-	-	-	-
		A2KBH22(9.5M)	5.6	4.6	1	1	-	-	-	-
	BH11 - Southern Cross Drive reserve	A2KBH11(0.5M)	7.2	5.5	1.7	2	-	-	-	-
		A2KBH11(1.0M)	7.3	5.7	1.6	2	-	-	-	-
		A2KBH11(1.5M)	7.2	5.8	1.4	1	-	-	-	-
		A2KBH11(2.0M)	7.1	5.7	1.4	1	-	-	-	-
		A2KBH11(2.5M)	7.3	5.9	1.4	1	-	-	-	-
		A2KBH11(3.0M)	7.1	6	1.1	1	-	-	-	-
		A2KBH11(3.5M)	7.4	6	1.4	1	-	-	-	-
		A2KBH11(4.0M)	6.9	5.7	1.2	1	-	-	-	-
		A2KBH11(4.5M)	7.5	6.1	1.4	1	-	-	-	-
		A2KBH11(5.0M)	6.9	5.9	1	1	-	-	-	-
		A2KBH11(5.5M)	6.9	5.8	1.1	1	-	-	-	-
		A2KBH11(6.0M)	7.1	5.6	1.5	1	-	-	-	-
		A2KBH11(6.5M)	6.8	5.2	1.6	1	-	-	-	-
		A2KBH11(7.0M)	6.6	5.3	1.3	1	-	-	-	-
	BH12 - Southern Cross Drive reserve	A2KBH12(0.5M)	6.8	4.6	2.2	2	-	-	-	-
		A2KBH12(1.0M)	6.8	4.9	1.9	2	-	-	-	-
		A2KBH12(1.5M)	6.9	5.7	1.2	1	-	-	-	-
		A2KBH12(2.0M)	7.2	5.6	1.6	1	-	-	-	-
		A2KBH12(2.5M)	7.3	5.3	2	1	-	-	-	-
		A2KBH12(3.0M)	7.2	5.7	1.5	1	-	-	-	-
		A2KBH12(3.5M)	7.3	5.4	1.9	1	-	-	-	-
		A2KBH12(4.0M)	6.7	5.3	1.4	1	-	-	-	-
		A2KBH12(4.5M)	4.9	4.3	0.6	1	-	-	-	-
		A2KBH12(5.0M)	5	4.5	0.5	1	-	-	-	-
		A2KBH12(5.5M)	5.7	4.7	1	1	-	-	-	-
		A2KBH12(6.0M)	6.2	4.7	1.5	1	-	-	-	-
		A2KBH12(6.5M)	6.7	5.9	0.8	1	-	-	-	-
		A2KBH12(7.0M)	7	5.7	1.3	1	-	-	-	-
		A2KBH12(7.5M)	7	5.6	1.4	1	-	-	-	-
		A2KBH12(8.0M)	7.3	6.1	1.2	1	-	-	-	-
		A2KBH12(8.5M)	7.4	5.9	1.5	1	-	-	-	-
		A2KBH12(9.0M)	7.3	5.8	1.5	1	-	-	-	-
		A2KBH12(9.5M)	6.6	5.5	1.1	1	-	-	-	-
		A2KBH12(10.0M)	6.7	5.5	1.2	1	-	-	-	-
	Adopted Criteria									
	Field Screening Criteria [2]		≤pH 4	≤pH 3.5	>1 pH unit (<pH $_F$)					
	Action Criteria [3]							≥0.03		≥18

Notes:

Indicates possible AASS or PASS

1 Strength of Reaction - 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reacl

2 Based on indicators of ASS presented in Table 4 of WA DER (2015

3 Coarse-textured soil (sand) where >1,000 tonnes of soils are to be disturbed, as presented in Table 5.4 of Sullivan et al (20

ND Not Detected

\- Not Analysed

Appendix D – Chain of Custody, Sample Receipt and Certificates of Analysis

eurofins | Environment Testing

www.eurofins.com.au EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261 Site # 1254

Sydney
179 Magowar Road
Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
NZBN: 9429046024954

Auckland
35 O'Rorke Road
Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Alliance Geotechnical
Contact name:	Anurag Sobti
Project name:	Not provided
Project ID:	14777
Turnaround time:	5 Day
Date/Time received	May 25, 2022 7:43 PM
Eurofins reference	891737

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Anurag Sobti - anurag@allgeo.com.au.

Note: A copy of these results will also be delivered to the general Alliance Geotechnical email address.

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066 — 02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 EnviroSampleVic@eurofins.com

Company	ALLIANCE GEOTECHNICAL	Project №	14777	Project Manager	Anurag Sohbti
Address	10 WELDER ROAD, SEVEN HILLS NSW	Project Name		EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order					
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses (Note: Where metals are requested, please specify "Total" or "Filtered") SUITE code must be used to attract SUITE pricing

Containers: 1L Plastic | 250mL Plastic | 125mL Plastic | 200mL Amber Glass | 40mL VOA vial | 500mL PFAS Bottle | Jar (Glass or HDPE) | Other (Asbestos AS4964, WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not ticked)

☐ Overnight (9am)* ☐ 1 Day* ☐ 2 Day* ☐ 3 Day* ☐ 5 Day * Surcharges apply ☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	WAC Suite No. 2	pH screening	HOLD	Sample Comments / Dangerous Goods Hazard Warning
1	BH2 (0.2-0.3m)	25/5/22	S				
2	BH2 (0.6-0.7m)						
3	BH2 (1.2-1.3m)						
4	BH2 (1.5-1.6m)						
5	BH2 (0.5m)						
6	BH2 (1.0m)						
7	BH2 (1.5m)						
8	BH2 (2.0m)						
9	BH5 (0.4-0.7m)						
10	BH5 (0.8-0.9m)						
11	BH5 (1.2-1.4m)						
12	BH5 (0.5m)						
13	BH5 (1.0m)						
14	BH5 (1.5m)						
15	BH5 (2.0m)						
16	BH6 (0.2-0.3m)						
17	BH6 (0.4-0.9m)						
18	BH6 (1.0-1.1m)						
19	BH6 (0.5m)						
20	BH6 (1.0m)						
21	BH6 (1.5m)						
22	BH6 (2.0m)						
	Total Counts						

NOTE: Please turnaround @ 3 day TAT on standard rates ~~ap~~ as per agreement

Method of Shipment: ☑ Courier (#) ☐ Hand Delivered ☐ Postal

Name	Aaron Hong	Signature	[signature]	Date	25/5/22	Time	
Received By	A. Sinharaja	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	25/05/22	Time	7:43 PM
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	__/__/__	Time	__:__

Temperature: 17.5°C

Report № 891737

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory
Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
Unit 2, 91 Leach Highway, Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
2 Kingston Town Close, Oakleigh, VIC 3166
03 8564 5000 EnviroSampleVic@eurofins.com

Company	ALLIANCE GEOTECHNICAL	Project №	14777	Project Manager	Anwrag Sohbti
Address	10 WELDER ROAD, SEVEN HILLS NSW	Project Name		EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order					
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses (Note: Where metals are requested, please specify "Total" or "Filtered"). SUITE code must be used to attract SUITE pricing

Containers: 1L Plastic | 250mL Plastic | 125mL Plastic | 200mL Amber Glass | 40mL VOA vial | 500mL PFAS Bottle | Jar (Glass or HDPE) | Other (Asbestos AS4964, WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not ticked)
☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☐ 3 Day* ☐ 5 Day
☐ Other ( )
* Surcharges apply

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	WAC Suite No.2	pH Screening	HOLD	Sample Comments / Dangerous Goods Hazard Warning
1	BH7 (0.3-0.4m)	25/5/22	S				
2	BH7 (0.6-0.7m)						
3	BH7 (1.4-1.5m)						
4	BH7 (0.5m)						
5	BH7 (1.0m)						
6	BH7 (1.5m)						
7	BH7 (2.0m)						
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
	Total Counts						

Method of Shipment: ☑ Courier (#) ☐ Hand Delivered ☐ Postal

Name: Aaron Hong Signature: [signature] Date: 25/5/22 Time:

Eurofins | mgt Laboratory Use Only							
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time __:__	Temperature
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time __:__	Report №

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

eurofins | Environment Testing

Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Anurag Sobti**

Report **891737-S**
Project name
Project ID 14777
Received Date May 25, 2022

Client Sample ID			G01 **BH2 (0.2-0.3)**	**BH2 (1.2-1.3)**	**BH2 (1.5-1.6)**	**BH2 (0.5)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-My0061946**	**S22-My0061947**	**S22-My0061948**	**S22-My0061949**
Date Sampled			**May 25, 2022**	**May 25, 2022**	**May 25, 2022**	**May 25, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	-
TRH C10-C14	20	mg/kg	< 20	27	29	-
TRH C15-C28	50	mg/kg	120	300	110	-
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	120	327	139	-
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	-
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	-
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50	< 50	< 50	-
TRH >C16-C34	100	mg/kg	190	410	170	-
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	190	410	170	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	91	62	55	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	2.9	4.7	1.3	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	3.2	4.9	1.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	3.4	5.2	1.8	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	0.8	1.7	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	3.3	3.7	1.1	-
Benzo(a)pyrene	0.5	mg/kg	2.0	3.5	1.0	-
Benzo(b&j)fluoranthene N07	0.5	mg/kg	3.0	2.5	0.9	-
Benzo(g.h.i)perylene	0.5	mg/kg	1.0	1.8	0.6	-
Benzo(k)fluoranthene	0.5	mg/kg	1.4	3.2	0.7	-
Chrysene	0.5	mg/kg	2.0	4.1	0.9	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-

Client Sample ID			[G01]BH2 (0.2-0.3)	BH2 (1.2-1.3)	BH2 (1.5-1.6)	BH2 (0.5)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061946	S22-My0061947	S22-My0061948	S22-My0061949
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	4.7	9.4	2.3	-
Fluorene	0.5	mg/kg	< 0.5	0.6	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	1.0	1.9	0.6	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	2.7	6.4	1.5	-
Pyrene	0.5	mg/kg	4.1	8.7	2.2	-
Total PAH*	0.5	mg/kg	26	48	12	-
2-Fluorobiphenyl (surr.)	1	%	147	126	112	-
p-Terphenyl-d14 (surr.)	1	%	119	128	130	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	130	126	[Q09]INT	-
Tetrachloro-m-xylene (surr.)	1	%	145	139	130	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	130	126	[Q09]INT	-
Tetrachloro-m-xylene (surr.)	1	%	145	139	130	-

Client Sample ID			[G01]BH2 (0.2-0.3)	BH2 (1.2-1.3)	BH2 (1.5-1.6)	BH2 (0.5)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061946	S22-My0061947	S22-My0061948	S22-My0061949
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.0	20	8.8	-
Cadmium	0.4	mg/kg	< 0.4	0.4	0.4	-
Chromium	5	mg/kg	9.8	19	9.5	-
Copper	5	mg/kg	62	56	42	-
Lead	5	mg/kg	120	200	130	-
Mercury	0.1	mg/kg	< 0.1	0.2	0.1	-
Nickel	5	mg/kg	6.7	13	9.0	-
Zinc	5	mg/kg	110	220	220	-
% Moisture	1	%	10	19	19	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	-	-	9.7
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	-	-	7.3
Reaction Ratings*[S05]	0	-	-	-	-	3.0

Client Sample ID			BH2 (1.0)	BH2 (1.5)	BH2 (2.0)	BH5 (0.4-0.7)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061950	S22-My0061951	S22-My0061952	S22-My0061953
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	78
TRH C29-C36	50	mg/kg	-	-	-	< 50
TRH C10-C36 (Total)	50	mg/kg	-	-	-	78
Naphthalene[N02]	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	110
TRH >C34-C40	100	mg/kg	-	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	110
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	80
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	-	1.0
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	-	1.3
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	-	1.5
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5

Client Sample ID			BH2 (1.0)	BH2 (1.5)	BH2 (2.0)	BH5 (0.4-0.7)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061950	S22-My0061951	S22-My0061952	S22-My0061953
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	0.6
Benzo(a)pyrene	0.5	mg/kg	-	-	-	0.8
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	-	0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	0.7
Chrysene	0.5	mg/kg	-	-	-	0.7
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	1.2
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	1.6
Total PAH*	0.5	mg/kg	-	-	-	6.6
2-Fluorobiphenyl (surr.)	1	%	-	-	-	132
p-Terphenyl-d14 (surr.)	1	%	-	-	-	148
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-HCH	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-HCH	0.05	mg/kg	-	-	-	< 0.05
d-HCH	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	141

Client Sample ID			BH2 (1.0)	BH2 (1.5)	BH2 (2.0)	BH5 (0.4-0.7)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061950	S22-My0061951	S22-My0061952	S22-My0061953
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	-	< 0.1
Total PCB*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	Q09 INT
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	141
Heavy Metals						
Arsenic	2	mg/kg	-	-	-	< 2
Cadmium	0.4	mg/kg	-	-	-	< 0.4
Chromium	5	mg/kg	-	-	-	< 5
Copper	5	mg/kg	-	-	-	9.3
Lead	5	mg/kg	-	-	-	6.8
Mercury	0.1	mg/kg	-	-	-	< 0.1
Nickel	5	mg/kg	-	-	-	< 5
Zinc	5	mg/kg	-	-	-	10.0
% Moisture	1	%	-	-	-	3.9
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	9.0	8.5	6.9	-
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	7.0	6.9	3.5	-
Reaction Ratings*S05	0	-	4.0	4.0	3.0	-

Client Sample ID			BH5 (0.8-0.9)	BH5 (0.5)	BH5 (1.0)	BH5 (1.5)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061954	S22-My0061955	S22-My0061956	S22-My0061957
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	-	-
TRH C10-C14	20	mg/kg	< 20	-	-	-
TRH C15-C28	50	mg/kg	< 50	-	-	-
TRH C29-C36	50	mg/kg	< 50	-	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	-	-
Naphthalene N02	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-	-

Client Sample ID			BH5 (0.8-0.9)	BH5 (0.5)	BH5 (1.0)	BH5 (1.5)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061954	S22-My0061955	S22-My0061956	S22-My0061957
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
4-Bromofluorobenzene (surr.)	1	%	57	-	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	-
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	0.5	-	-	-
Total PAH*	0.5	mg/kg	0.5	-	-	-
2-Fluorobiphenyl (surr.)	1	%	115	-	-	-
p-Terphenyl-d14 (surr.)	1	%	140	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-
a-HCH	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-HCH	0.05	mg/kg	< 0.05	-	-	-
d-HCH	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID			BH5 (0.8-0.9)	BH5 (0.5)	BH5 (1.0)	BH5 (1.5)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061954	S22-My0061955	S22-My0061956	S22-My0061957
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.05	mg/kg	< 0.05	-	-	-
Toxaphene	0.5	mg/kg	< 0.5	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	[Q09]INT	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	136	-	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1260	0.1	mg/kg	< 0.1	-	-	-
Total PCB*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	[Q09]INT	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	136	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	-	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-	-
Chromium	5	mg/kg	< 5	-	-	-
Copper	5	mg/kg	< 5	-	-	-
Lead	5	mg/kg	< 5	-	-	-
Mercury	0.1	mg/kg	< 0.1	-	-	-
Nickel	5	mg/kg	< 5	-	-	-
Zinc	5	mg/kg	8.2	-	-	-
% Moisture	1	%	2.5	-	-	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	8.8	8.6	5.9
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	8.7	5.7	4.9
Reaction Ratings*[S05]	0	-	-	4.0	4.0	2.0

Client Sample ID			BH5 (2.0)	[G01]BH6 (0.2-0.3)	[G01]BH6 (0.4-0.9)	BH6 (1.0-1.1)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061958	S22-My0061959	S22-My0061960	S22-My0061961
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	-	190	< 20	480
TRH C15-C28	50	mg/kg	-	5200	< 50	260
TRH C29-C36	50	mg/kg	-	1100	< 50	230
TRH C10-C36 (Total)	50	mg/kg	-	6490	< 50	970

Client Sample ID			BH5 (2.0)	[G01]BH6 (0.2-0.3)	[G01]BH6 (0.4-0.9)	BH6 (1.0-1.1)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061958	S22-My0061959	S22-My0061960	S22-My0061961
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
Naphthalene[N02]	0.5	mg/kg	-	9.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	-	430	< 50	450
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	420.5	< 50	450
TRH >C16-C34	100	mg/kg	-	8200	< 100	440
TRH >C34-C40	100	mg/kg	-	1500	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	10130	< 100	890
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	72	62	65
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	87	< 5	0.8
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	87	5.8	1.1
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	87	12	1.3
Acenaphthene	0.5	mg/kg	-	26	1.6	< 0.5
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	29	4.1	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	61	< 0.5	0.7
Benzo(a)pyrene	0.5	mg/kg	-	57	< 5	0.6
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	49	< 5	0.6
Benzo(g.h.i)perylene	0.5	mg/kg	-	35	< 5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	38	< 5	0.5
Chrysene	0.5	mg/kg	-	45	< 5	0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	12	< 5	< 0.5
Fluoranthene	0.5	mg/kg	-	140	6.6	1.6
Fluorene	0.5	mg/kg	-	14	0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	27	< 5	< 0.5
Naphthalene	0.5	mg/kg	-	8.1	0.6	< 0.5
Phenanthrene	0.5	mg/kg	-	77	< 0.5	1.0
Pyrene	0.5	mg/kg	-	140	6.9	1.7
Total PAH*	0.5	mg/kg	-	760	20	7.2
2-Fluorobiphenyl (surr.)	1	%	-	[Q09]INT	149	114
p-Terphenyl-d14 (surr.)	1	%	-	[Q09]INT	[Q09]INT	133
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
a-HCH	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Aldrin	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
b-HCH	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
d-HCH	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05

Client Sample ID			BH5 (2.0)	[G01]BH6 (0.2-0.3)	[G01]BH6 (0.4-0.9)	BH6 (1.0-1.1)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061958	S22-My0061959	S22-My0061960	S22-My0061961
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Endrin	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	-	< 10	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.5	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	[Q09]INT	[Q09]INT	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	-	[Q09]INT	[Q09]INT	132
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 1	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	-	< 1	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	-	< 1	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	-	< 1	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	-	< 1	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	-	< 1	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	-	< 1	< 1	< 0.1
Total PCB*	0.1	mg/kg	-	< 1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	[Q09]INT	[Q09]INT	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	-	[Q09]INT	[Q09]INT	132
Heavy Metals						
Arsenic	2	mg/kg	-	5.7	3.3	< 2
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	-	11	12	< 5
Copper	5	mg/kg	-	89	16	< 5
Lead	5	mg/kg	-	52	9.9	< 5
Mercury	0.1	mg/kg	-	< 0.1	0.1	< 0.1
Nickel	5	mg/kg	-	18	5.6	< 5
Zinc	5	mg/kg	-	87	23	27
% Moisture	1	%	-	9.9	4.4	3.9
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.0	-	-	-
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.0	-	-	-
Reaction Ratings*[S05]	0	-	4.0	-	-	-

Client Sample ID			BH6 (0.5)	BH6 (1.0)	BH6 (1.5)	BH6 (2.0)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061962	S22-My0061963	S22-My0061964	S22-My0061965
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	8.9	8.4	6.3	5.9
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	7.3	6.7	5.4	5.1
Reaction Ratings*[S05]	0	-	2.0	2.0	1.0	1.0

Client Sample ID			[G01]BH7 (0.3-0.4)	BH7 (0.6-0.7)	BH7 (0.5)	BH7 (1.0)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061966	S22-My0061967	S22-My0061968	S22-My0061969
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	54	< 50	-	-
TRH C29-C36	50	mg/kg	120	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	174	< 50	-	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	140	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	140	< 100	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	67	63	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			[G01]BH7 (0.3-0.4)	BH7 (0.6-0.7)	BH7 (0.5)	BH7 (1.0)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061966	S22-My0061967	S22-My0061968	S22-My0061969
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	[Q09]INT	111	-	-
p-Terphenyl-d14 (surr.)	1	%	[Q09]INT	135	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	-	-
a-HCH	0.05	mg/kg	< 0.5	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.5	< 0.05	-	-
b-HCH	0.05	mg/kg	< 0.5	< 0.05	-	-
d-HCH	0.05	mg/kg	< 0.5	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.5	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	-	-
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	-	-
Toxaphene	0.5	mg/kg	< 10	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	[Q09]INT	[Q09]INT	-	-
Tetrachloro-m-xylene (surr.)	1	%	138	127	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	-	-
Total PCB*	0.1	mg/kg	< 1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	[Q09]INT	[Q09]INT	-	-
Tetrachloro-m-xylene (surr.)	1	%	138	127	-	-

Client Sample ID			[G01]BH7 (0.3-0.4)	BH7 (0.6-0.7)	BH7 (0.5)	BH7 (1.0)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-My0061966	S22-My0061967	S22-My0061968	S22-My0061969
Date Sampled			May 25, 2022	May 25, 2022	May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	2.2	< 2	-	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	-
Chromium	5	mg/kg	< 5	< 5	-	-
Copper	5	mg/kg	10	< 5	-	-
Lead	5	mg/kg	11	< 5	-	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	-
Nickel	5	mg/kg	< 5	< 5	-	-
Zinc	5	mg/kg	10	< 5	-	-
% Moisture	1	%	6.3	16	-	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	-	6.7	6.7
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	-	4.8	3.9
Reaction Ratings*[S05]	0	-	-	-	1.0	1.0

Client Sample ID			BH7 (1.5)	BH7 (2.0)
Sample Matrix			Soil	Soil
Eurofins Sample No.			S22-My0061970	S22-My0061971
Date Sampled			May 25, 2022	May 25, 2022
Test/Reference	LOR	Unit		
Acid Sulfate Soils Field pH Test				
pH-F (Field pH test)*	0.1	pH Units	6.1	6.1
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	3.6	4.2
Reaction Ratings*[S05]	0	-	1.0	1.0

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	May 26, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 26, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	May 26, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	May 26, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	May 26, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	May 26, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	May 26, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	May 26, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	May 25, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Acid Sulfate Soils Field pH Test	Brisbane	May 27, 2022	7 Days
- Method: LTM-GEN-7060 Determination of field pH (pHF) and field pH peroxide (pHFOX) tests			

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Project Name:
Project ID: 14777

Order No.:
Report #: 891737
Phone: 1800 288 188
Fax: 02 9675 1888

Received: May 25, 2022 7:43 PM
Due: Jun 1, 2022
Priority: 5 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH2 (0.2-0.3)	May 25, 2022		Soil	S22-My0061946			X	X
2	BH2 (1.2-1.3)	May 25, 2022		Soil	S22-My0061947			X	X
3	BH2 (1.5-1.6)	May 25, 2022		Soil	S22-My0061948			X	X
4	BH2 (0.5)	May 25, 2022		Soil	S22-My0061949		X		
5	BH2 (1.0)	May 25, 2022		Soil	S22-My0061950		X		
6	BH2 (1.5)	May 25, 2022		Soil	S22-		X		

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Phone: 1800 288 188
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Received: May 25, 2022 7:43 PM
Due: Jun 1, 2022
Priority: 5 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					My0061951				
7	BH2 (2.0)	May 25, 2022		Soil	S22-My0061952		X		
8	BH5 (0.4-0.7)	May 25, 2022		Soil	S22-My0061953			X	X
9	BH5 (0.8-0.9)	May 25, 2022		Soil	S22-My0061954			X	X
10	BH5 (0.5)	May 25, 2022		Soil	S22-My0061955		X		
11	BH5 (1.0)	May 25, 2022		Soil	S22-My0061956		X		
12	BH5 (1.5)	May 25, 2022		Soil	S22-My0061957		X		

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Received: May 25, 2022 7:43 PM
Due: Jun 1, 2022
Priority: 5 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
13	BH5 (2.0)	May 25, 2022		Soil	S22-My0061958		X		
14	BH6 (0.2-0.3)	May 25, 2022		Soil	S22-My0061959			X	X
15	BH6 (0.4-0.9)	May 25, 2022		Soil	S22-My0061960			X	X
16	BH6 (1.0-1.1)	May 25, 2022		Soil	S22-My0061961			X	X
17	BH6 (0.5)	May 25, 2022		Soil	S22-My0061962		X		
18	BH6 (1.0)	May 25, 2022		Soil	S22-My0061963		X		
19	BH6 (1.5)	May 25, 2022		Soil	S22-		X		

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Received: May 25, 2022 7:43 PM
Due: Jun 1, 2022
Priority: 5 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					My0061964				
20	BH6 (2.0)	May 25, 2022		Soil	S22-My0061965		X		
21	BH7 (0.3-0.4)	May 25, 2022		Soil	S22-My0061966			X	X
22	BH7 (0.6-0.7)	May 25, 2022		Soil	S22-My0061967			X	X
23	BH7 (0.5)	May 25, 2022		Soil	S22-My0061968		X		
24	BH7 (1.0)	May 25, 2022		Soil	S22-My0061969		X		
25	BH7 (1.5)	May 25, 2022		Soil	S22-My0061970		X		

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Project Name:
Project ID: 14777

Order No.:
Report #: 891737
Phone: 1800 288 188
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Received: May 25, 2022 7:43 PM
Due: Jun 1, 2022
Priority: 5 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
26	BH7 (2.0)	May 25, 2022		Soil	S22-My0061971		X		
27	BH2 (0.6-0.7)	May 25, 2022		Soil	S22-My0061972	X			
28	BH5 (1.2-1.4)	May 25, 2022		Soil	S22-My0061973	X			
29	BH7 (1.4-1.5)	May 25, 2022		Soil	S22-My0061974	X			
Test Counts						3	16	10	10

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	**mg/L:** milligrams per litre	**µg/L:** micrograms per litre
ppm: parts per million	**ppb:** parts per billion	**%:** Percentage
org/100 mL: Organisms per 100 millilitres	**NTU:** Nephelometric Turbidity Units	**MPN/100 mL:** Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Total PAH*	mg/kg	-			0.5	N/A	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	95			70-130	Pass	
TRH C10-C14	%	73			70-130	Pass	
Naphthalene	%	93			70-130	Pass	
TRH C6-C10	%	93			70-130	Pass	
TRH >C10-C16	%	72			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	97			70-130	Pass	
Toluene	%	98			70-130	Pass	
Ethylbenzene	%	98			70-130	Pass	
m&p-Xylenes	%	100			70-130	Pass	
o-Xylene	%	99			70-130	Pass	
Xylenes - Total*	%	100			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	100			70-130	Pass	
Acenaphthylene	%	102			70-130	Pass	
Anthracene	%	101			70-130	Pass	
Benz(a)anthracene	%	91			70-130	Pass	
Benzo(a)pyrene	%	105			70-130	Pass	
Benzo(b&j)fluoranthene	%	103			70-130	Pass	
Benzo(g.h.i)perylene	%	103			70-130	Pass	
Benzo(k)fluoranthene	%	100			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene			%	95			70-130	Pass	
Dibenz(a.h)anthracene			%	104			70-130	Pass	
Fluoranthene			%	102			70-130	Pass	
Fluorene			%	101			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	103			70-130	Pass	
Naphthalene			%	98			70-130	Pass	
Phenanthrene			%	102			70-130	Pass	
Pyrene			%	102			70-130	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	93			70-130	Pass	
4.4'-DDD			%	96			70-130	Pass	
4.4'-DDE			%	96			70-130	Pass	
4.4'-DDT			%	108			70-130	Pass	
a-HCH			%	94			70-130	Pass	
Aldrin			%	92			70-130	Pass	
b-HCH			%	98			70-130	Pass	
d-HCH			%	97			70-130	Pass	
Dieldrin			%	97			70-130	Pass	
Endosulfan I			%	95			70-130	Pass	
Endosulfan II			%	85			70-130	Pass	
Endosulfan sulphate			%	99			70-130	Pass	
Endrin			%	97			70-130	Pass	
Endrin aldehyde			%	117			70-130	Pass	
Endrin ketone			%	97			70-130	Pass	
g-HCH (Lindane)			%	96			70-130	Pass	
Heptachlor			%	97			70-130	Pass	
Heptachlor epoxide			%	96			70-130	Pass	
Hexachlorobenzene			%	95			70-130	Pass	
Methoxychlor			%	107			70-130	Pass	
LCS - % Recovery									
Polychlorinated Biphenyls									
Aroclor-1016			%	87			70-130	Pass	
Aroclor-1260			%	101			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	117			80-120	Pass	
Cadmium			%	117			80-120	Pass	
Chromium			%	119			80-120	Pass	
Copper			%	117			80-120	Pass	
Lead			%	116			80-120	Pass	
Mercury			%	113			80-120	Pass	
Nickel			%	115			80-120	Pass	
Zinc			%	115			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-My0042239	NCP	%	92			70-130	Pass	
TRH C10-C14	S22-My0060274	NCP	%	116			70-130	Pass	
Naphthalene	S22-My0042239	NCP	%	75			70-130	Pass	
TRH C6-C10	S22-My0042239	NCP	%	90			70-130	Pass	
TRH >C10-C16	S22-My0060274	NCP	%	114			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzene	S22-My0042239	NCP	%	90			70-130	Pass	
Toluene	S22-My0042239	NCP	%	91			70-130	Pass	
Ethylbenzene	S22-My0042239	NCP	%	91			70-130	Pass	
m&p-Xylenes	S22-My0042239	NCP	%	90			70-130	Pass	
o-Xylene	S22-My0042239	NCP	%	89			70-130	Pass	
Xylenes - Total*	S22-My0042239	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-My0064161	NCP	%	107			70-130	Pass	
Acenaphthylene	S22-My0064161	NCP	%	104			70-130	Pass	
Anthracene	S22-My0064161	NCP	%	107			70-130	Pass	
Benz(a)anthracene	S22-My0064161	NCP	%	119			70-130	Pass	
Benzo(a)pyrene	S22-My0064161	NCP	%	113			70-130	Pass	
Benzo(b&j)fluoranthene	S22-My0064161	NCP	%	103			70-130	Pass	
Benzo(g.h.i)perylene	S22-My0064161	NCP	%	112			70-130	Pass	
Benzo(k)fluoranthene	S22-My0064161	NCP	%	104			70-130	Pass	
Chrysene	S22-My0064161	NCP	%	103			70-130	Pass	
Dibenz(a.h)anthracene	S22-My0064161	NCP	%	117			70-130	Pass	
Fluoranthene	S22-My0064161	NCP	%	113			70-130	Pass	
Fluorene	S22-My0064161	NCP	%	110			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-My0064161	NCP	%	115			70-130	Pass	
Naphthalene	S22-My0064161	NCP	%	103			70-130	Pass	
Phenanthrene	S22-My0064161	NCP	%	115			70-130	Pass	
Pyrene	S22-My0064161	NCP	%	113			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-My0065986	NCP	%	96			70-130	Pass	
4.4'-DDD	S22-My0065986	NCP	%	103			70-130	Pass	
4.4'-DDE	S22-My0065986	NCP	%	99			70-130	Pass	
4.4'-DDT	S22-My0065986	NCP	%	110			70-130	Pass	
a-HCH	S22-My0065986	NCP	%	95			70-130	Pass	
Aldrin	S22-My0065986	NCP	%	96			70-130	Pass	
b-HCH	S22-My0065986	NCP	%	104			70-130	Pass	
d-HCH	S22-My0065986	NCP	%	88			70-130	Pass	
Dieldrin	S22-My0065986	NCP	%	97			70-130	Pass	
Endosulfan I	S22-My0065986	NCP	%	92			70-130	Pass	
Endosulfan II	S22-My0065986	NCP	%	85			70-130	Pass	
Endosulfan sulphate	S22-My0065986	NCP	%	98			70-130	Pass	
Endrin	S22-My0065986	NCP	%	102			70-130	Pass	
Endrin aldehyde	S22-My0065986	NCP	%	102			70-130	Pass	
Endrin ketone	S22-My0065986	NCP	%	99			70-130	Pass	
Heptachlor	S22-My0065986	NCP	%	96			70-130	Pass	
Heptachlor epoxide	S22-My0065986	NCP	%	93			70-130	Pass	
Hexachlorobenzene	S22-My0065986	NCP	%	96			70-130	Pass	
Methoxychlor	S22-My0065986	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S22-My0065986	NCP	%	78			70-130	Pass	
Aroclor-1260	S22-My0065986	NCP	%	104			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Copper	S22-My0052880	NCP	%	87			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Arsenic	S22-My0061959	CP	%	116			75-125	Pass	
Cadmium	S22-My0061959	CP	%	114			75-125	Pass	
Chromium	S22-My0061959	CP	%	102			75-125	Pass	
Lead	S22-My0061959	CP	%	110			75-125	Pass	
Mercury	S22-My0061959	CP	%	116			75-125	Pass	
Nickel	S22-My0061959	CP	%	103			75-125	Pass	
Zinc	S22-My0061959	CP	%	111			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-My0042249	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S22-My0042249	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-My0042249	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-My0042249	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-My0042249	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-My0042249	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-My0042249	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-My0042249	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-My0042249	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-My0068446	NCP	mg/kg	2.0	3.4	51	30%	Fail	Q15
Phenanthrene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endrin aldehyde	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-My0068446	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-My0068446	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-My0068446	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-My0061954	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-My0061954	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-My0061954	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S22-My0061954	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-My0061954	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S22-My0061954	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-My0061954	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-My0061954	CP	mg/kg	8.2	6.7	19	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-My0061954	CP	%	2.5	2.2	13	30%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-My0061958	CP	pH Units	6.0	6.1	pass	20%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S22-My0061959	CP	mg/kg	190	220	12	30%	Pass	
TRH C15-C28	S22-My0061959	CP	mg/kg	5200	5200	1.0	30%	Pass	
TRH C29-C36	S22-My0061959	CP	mg/kg	1100	920	19	30%	Pass	
TRH >C10-C16	S22-My0061959	CP	mg/kg	430	480	11	30%	Pass	
TRH >C16-C34	S22-My0061959	CP	mg/kg	8200	7800	5.0	30%	Pass	
TRH >C34-C40	S22-My0061959	CP	mg/kg	1500	1500	5.0	30%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-My0061964	CP	pH Units	6.3	6.2	pass	20%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
S05	Field Screen uses the following fizz rating to classify the rate the samples reacted to the peroxide: 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reaction.

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention:	Anurag Sobti
Report	891737-AID
Project Name	
Project ID	14777
Received Date	May 25, 2022
Date Reported	May 31, 2022

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name
Project ID 14777
Date Sampled May 25, 2022
Report 891737-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH2 (0.2-0.3)	22-My0061946	May 25, 2022	Approximate Sample 230g Sample consisted of: Brown coarse-grained sandy soil and rocks	Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of asbestos containing material = 0.0023g* Total estimated asbestos content in the sample = 0.0021g* Total estimated asbestos concentration = 0.00090% w/w* No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH2 (1.2-1.3)	22-My0061947	May 25, 2022	Approximate Sample 237g Sample consisted of: Brown coarse-grained sandy soil and rocks	Chrysotile and crocidolite asbestos detected in the form of loose fibre bundles. Chrysotile and amosite asbestos detected in fibre plaster material. Approximate raw weight of asbestos containing material = 0.047g* Total estimated asbestos content in the sample = 0.012g* Total estimated asbestos concentration = 0.0051% w/w* No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH2 (1.5-1.6)	22-My0061948	May 25, 2022	Approximate Sample 105g Sample consisted of: Brown fine-grained clayey soil and rocks	Chrysotile asbestos detected in the form of loose fibre bundles. Approximate raw weight of asbestos containing material = 0.025g* Total estimated asbestos content in the sample = 0.023g* Total estimated asbestos concentration = 0.022% w/w* Organic fibre detected. No trace asbestos detected.
BH5 (0.4-0.7)	22-My0061953	May 25, 2022	Approximate Sample 180g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH5 (0.8-0.9)	22-My0061954	May 25, 2022	Approximate Sample 223g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6 (0.2-0.3)	22-My0061959	May 25, 2022	Approximate Sample 381g Sample consisted of: Brown fine-grained clayey soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6 (0.4-0.9)	22-My0061960	May 25, 2022	Approximate Sample 288g Sample consisted of: Light brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6 (1.0-1.1)	22-My0061961	May 25, 2022	Approximate Sample 179g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7 (0.3-0.4)	22-My0061966	May 25, 2022	Approximate Sample 378g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7 (0.6-0.7)	22-My0061967	May 25, 2022	Approximate Sample 301g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	May 25, 2022	Indefinite

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Company Name: Alliance Geotechnical
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NSW 2147

Project Name:
Project ID: 14777

Order No.:
Report #: 891737
Phone: 1800 288 188
Fax: 02 9675 1888

Received: May 25, 2022 7:43 PM
Due: May 30, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH2 (0.2-0.3)	May 25, 2022		Soil	S22-My0061946			X	X
2	BH2 (1.2-1.3)	May 25, 2022		Soil	S22-My0061947			X	X
3	BH2 (1.5-1.6)	May 25, 2022		Soil	S22-My0061948			X	X
4	BH2 (0.5)	May 25, 2022		Soil	S22-My0061949		X		
5	BH2 (1.0)	May 25, 2022		Soil	S22-My0061950		X		
6	BH2 (1.5)	May 25, 2022		Soil	S22-		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					My0061951				
7	BH2 (2.0)	May 25, 2022		Soil	S22-My0061952		X		
8	BH5 (0.4-0.7)	May 25, 2022		Soil	S22-My0061953			X	X
9	BH5 (0.8-0.9)	May 25, 2022		Soil	S22-My0061954			X	X
10	BH5 (0.5)	May 25, 2022		Soil	S22-My0061955		X		
11	BH5 (1.0)	May 25, 2022		Soil	S22-My0061956		X		
12	BH5 (1.5)	May 25, 2022		Soil	S22-My0061957		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
13	BH5 (2.0)	May 25, 2022		Soil	S22-My0061958		X		
14	BH6 (0.2-0.3)	May 25, 2022		Soil	S22-My0061959			X	X
15	BH6 (0.4-0.9)	May 25, 2022		Soil	S22-My0061960			X	X
16	BH6 (1.0-1.1)	May 25, 2022		Soil	S22-My0061961			X	X
17	BH6 (0.5)	May 25, 2022		Soil	S22-My0061962		X		
18	BH6 (1.0)	May 25, 2022		Soil	S22-My0061963		X		
19	BH6 (1.5)	May 25, 2022		Soil	S22-		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					My0061964				
20	BH6 (2.0)	May 25, 2022		Soil	S22-My0061965		X		
21	BH7 (0.3-0.4)	May 25, 2022		Soil	S22-My0061966			X	X
22	BH7 (0.6-0.7)	May 25, 2022		Soil	S22-My0061967			X	X
23	BH7 (0.5)	May 25, 2022		Soil	S22-My0061968		X		
24	BH7 (1.0)	May 25, 2022		Soil	S22-My0061969		X		
25	BH7 (1.5)	May 25, 2022		Soil	S22-My0061970		X		

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Project Name:
Project ID: 14777

Order No.:
Report #: 891737
Phone: 1800 288 188
Fax: 02 9675 1888

Received: May 25, 2022 7:43 PM
Due: May 30, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
26	BH7 (2.0)	May 25, 2022		Soil	S22-My0061971		X		
27	BH2 (0.6-0.7)	May 25, 2022		Soil	S22-My0061972	X			
28	BH5 (1.2-1.4)	May 25, 2022		Soil	S22-My0061973	X			
29	BH7 (1.4-1.5)	May 25, 2022		Soil	S22-My0061974	X			
Test Counts						3	16	10	10

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
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Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Mehran Asadabadi**

Report **895086-L**
Project name
Project ID ADDITIONAL - 14777
Received Date Jun 06, 2022

Client Sample ID			**BH2 (0.2-0.3)**	**BH2 (1.2-1.3)**	**BH2 (1.5-1.6)**	**BH6 (0.2-0.3)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0012417**	**S22-Jn0012418**	**S22-Jn0012419**	**S22-Jn0012420**
Date Sampled			**May 25, 2022**	**May 25, 2022**	**May 25, 2022**	**May 25, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Heavy Metals						
Lead	0.01	mg/L	0.02	0.15	0.03	-
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	8.5	8.5	6.4	8.6
pH (off)	0.1	pH Units	6.2	5.5	5.3	5.2
pH (USA HCl addition)	0.1	pH Units	2.1	2.2	2.1	2.2

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 08, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Heavy Metals	Sydney	Jun 08, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
USA Leaching Procedure	Sydney	Jun 08, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

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NATA # 1261 Site # 18217

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
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Project Name:
Project ID: ADDITIONAL - 14777

Order No.:
Report #: 895086
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 6, 2022 8:49 AM
Due: Jun 9, 2022
Priority: 3 Day
Contact Name: Mehran Asadabadi

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH2 (0.2-0.3)	May 25, 2022		US Leachate	S22-Jn0012417	X	X	X
2	BH2 (1.2-1.3)	May 25, 2022		US Leachate	S22-Jn0012418	X	X	X
3	BH2 (1.5-1.6)	May 25, 2022		US Leachate	S22-Jn0012419	X	X	X
4	BH6 (0.2-0.3)	May 25, 2022		US Leachate	S22-Jn0012420	X		X
Test Counts						4	3	4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Lead			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Lead			%	108			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S22-Jn0012419	CP	%	105			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S22-Jn0012418	CP	mg/L	0.15	0.16	6.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 20794

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Mehran Asadabadi**

Report **894891-S**
Project name
Project ID 14777
Received Date Jun 06, 2022

Client Sample ID			**BH2 (2.0)**	**BH5 (1.0)**	**BH7 (1.0)**	**BH7 (1.5)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**B22-Jn0010868**	**B22-Jn0010869**	**B22-Jn0010870**	**B22-Jn0010871**
Date Sampled			**May 25, 2022**	**May 25, 2022**	**May 25, 2022**	**May 25, 2022**
Test/Reference	LOR	Unit				
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	6.4	7.0	5.7	4.9
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	< 0.003	0.010	0.050
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	< 2	4.0	32
Potential Acidity - Titratable Peroxide						
pH-OX	0.1	pH Units	4.3	6.1	3.9	2.5
Titratable Peroxide Acidity (s-TPA)	0.02	% pyrite S	< 0.02	< 0.02	0.03	0.67
Titratable Peroxide Acidity (a-TPA)	2	mol H+/t	< 2	< 2	16	420
Titratable Sulfidic Acidity (a-TSA)	2	mol H+/t	< 2	< 2	12	380
Titratable Sulfidic Acidity (s-TSA)	0.02	% pyrite S	< 0.02	< 0.02	0.02	0.61
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	0.010	< 0.005	< 0.005	< 0.005
Peroxide Extractable Sulfur	0.005	% S	0.040	< 0.005	0.020	0.040
HCl Extractable Sulfur	0.005	% S	N/A	N/A	N/A	N/A
Potential Acidity (SPOS)						
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	0.02	% S	0.03	< 0.02	0.02	0.04
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	10	mol H+/t	16	< 10	14	25
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	N/A	N/A	N/A	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	N/A	N/A	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0	2.0	2.0	2.0
Extractable Calcium						
Calcium - KCl Extractable	0.005	% Ca	0.11	0.020	0.040	0.050
Calcium - Peroxide	0.005	% Ca	0.11	0.020	0.040	0.020
Calcium - Acid Reacted	0.005	% Ca	0.007	< 0.005	< 0.005	< 0.005
Calcium - Acid Reacted (s-aCa)	0.005	% S	0.006	< 0.005	< 0.005	< 0.005
Calcium - Acid Reacted (a-aCa)	0.005	mol H+/t	3.5	< 0.005	< 0.005	< 0.005
Extractable Magnesium						
Magnesium - KCl Extractable	0.005	% Mg	< 0.005	0.010	< 0.005	0.010
Magnesium - Peroxide	0.005	% Mg	< 0.005	0.010	< 0.005	< 0.005
Magnesium - Acid Reacted	0.005	% Mg	< 0.005	< 0.005	< 0.005	< 0.005
Magnesium - Acid Reacted (s-aCa)	0.005	% S	< 0.005	< 0.005	< 0.005	< 0.005
Magnesium - Acid Reacted (a-aCa)	0.005	mol H+/t	< 0.005	< 0.005	< 0.005	< 0.005
Acid Neutralising Capacity (ANCE)						
Acid Neutralising Capacity - (ANCE)	0.02	% CaCO3	N/A	N/A	N/A	N/A
Acid Neutralising Capacity - (s-ANCE)	0.02	% S	N/A	N/A	N/A	N/A
Acid Neutralising Capacity - (a-ANCE)	10	mol H+/t	n/a	n/a	n/a	n/a

Client Sample ID			BH2 (2.0)	BH5 (1.0)	BH7 (1.0)	BH7 (1.5)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**B22-Jn0010868**	**B22-Jn0010869**	**B22-Jn0010870**	**B22-Jn0010871**
Date Sampled			**May 25, 2022**	**May 25, 2022**	**May 25, 2022**	**May 25, 2022**
Test/Reference	LOR	Unit				
Acid Neutralising Capacity (ANCbt)						
ANC Fineness Factor		factor	1.5	1.5	1.5	1.5
Net Acidity (Including ANC)						
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	10	mol H+/t	16	< 10	18	57
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	0.02	% S	0.03	< 0.02	0.03	0.09
SPOCAS - Liming rate - ASSMAC	1	kg CaCO3/t	1.0	< 1	1.0	4.0
Extraneous Material						
<2mm Fraction	0.005	g	65	78	78	51
>2mm Fraction	0.005	g	< 0.005	1.1	< 0.005	< 0.005
Analysed Material	0.1	%	100	99	100	100
Extraneous Material	0.1	%	< 0.1	1.4	< 0.1	< 0.1

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
SPOCAS Suite			
SPOCAS Suite	Brisbane	Jun 07, 2022	6 Week
- Method: LTM-GEN-7050			
Extraneous Material	Brisbane	Jun 07, 2022	6 Week
- Method: LTM-GEN-7050/7070			

eurofins | Environment Testing

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Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
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Mayfield East NSW 2304
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NATA # 1261 Site # 25079

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Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Project Name:
Project ID: 14777

Order No.:
Report #: 894891
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 6, 2022 8:49 AM
Due: Jun 9, 2022
Priority: 3 Day
Contact Name: Mehran Asadabadi

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						SPOCAS Suite	Moisture Set
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217							
Brisbane Laboratory - NATA # 1261 Site # 20794						X	X
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH2 (2.0)	May 25, 2022		Soil	B22-Jn0010868	X	X
2	BH5 (1.0)	May 25, 2022		Soil	B22-Jn0010869	X	X
3	BH7 (1.0)	May 25, 2022		Soil	B22-Jn0010870	X	X
4	BH7 (1.5)	May 25, 2022		Soil	B22-Jn0010871	X	X
Test Counts						4	4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery									
Actual Acidity (NLM-3.2)									
pH-KCL (NLM-3.1)			%	97			80-120	Pass	
Titratable Actual Acidity (NLM-3.2)			%	98			80-120	Pass	
LCS - % Recovery									
Extractable Sulfur									
HCl Extractable Sulfur			%	92			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	N22-Jn0003191	NCP	pH Units	8.9	9.0	1.0	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	N22-Jn0003191	NCP	% pyrite S	< 0.003	< 0.003	<1	30%	Pass	
Titratable Actual Acidity (NLM-3.2)	N22-Jn0003191	NCP	mol H+/t	< 2	< 2	<1	20%	Pass	
Duplicate									
Potential Acidity - Titratable Peroxide				Result 1	Result 2	RPD			
pH-OX	S22-Jn0003662	NCP	pH Units	6.5	6.5	1.0	20%	Pass	
Titratable Peroxide Acidity (s-TPA)	N22-Jn0003191	NCP	% pyrite S	N/A	N/A	N/A	30%	Pass	
Titratable Peroxide Acidity (a-TPA)	S22-Jn0003662	NCP	mol H+/t	< 2	< 2	<1	20%	Pass	
Titratable Sulfidic Acidity (a-TSA)	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Titratable Sulfidic Acidity (s-TSA)	N22-Jn0003191	NCP	% pyrite S	N/A	N/A	N/A	30%	Pass	
Duplicate									
Extractable Sulfur				Result 1	Result 2	RPD			
Sulfur - KCl Extractable	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	30%	Pass	
Peroxide Extractable Sulfur	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	20%	Pass	
HCl Extractable Sulfur	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	20%	Pass	
Duplicate									
Potential Acidity (SPOS)				Result 1	Result 2	RPD			
Peroxide Oxidisable Sulfur (s-SPOS) (NLM 2.2)	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	30%	Pass	
Peroxide Oxidisable Sulfur (a-SPOS) (NLM 2.2)	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Retained Acidity (S-NAS)				Result 1	Result 2	RPD			
Net Acid soluble sulfur (s-SNAS) NLM-4.1	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (a-SNAS) NLM-4.1	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Extractable Calcium				Result 1	Result 2	RPD			
Calcium - KCl Extractable	N22-Jn0003191	NCP	% Ca	N/A	N/A	N/A	30%	Pass	
Calcium - Peroxide	N22-Jn0003191	NCP	% Ca	N/A	N/A	N/A	20%	Pass	
Calcium - Acid Reacted	N22-Jn0003191	NCP	% Ca	N/A	N/A	N/A	30%	Pass	
Calcium - Acid Reacted (s-aCa)	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	30%	Pass	
Calcium - Acid Reacted (a-aCa)	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Extractable Magnesium				Result 1	Result 2	RPD			
Magnesium - KCl Extractable	N22-Jn0003191	NCP	% Mg	N/A	N/A	N/A	30%	Pass	
Magnesium - Peroxide	N22-Jn0003191	NCP	% Mg	N/A	N/A	N/A	20%	Pass	
Magnesium - Acid Reacted	N22-Jn0003191	NCP	% Mg	N/A	N/A	N/A	30%	Pass	
Magnesium - Acid Reacted (s-aCa)	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	30%	Pass	
Magnesium - Acid Reacted (a-aCa)	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	

Duplicate									
Acid Neutralising Capacity (ANCE)				Result 1	Result 2	RPD			
Acid Neutralising Capacity - (ANCE)	N22-Jn0003191	NCP	% CaCO3	N/A	N/A	N/A	30%	Pass	
Acid Neutralising Capacity - (a-ANCE)	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD			
ANC Fineness Factor	N22-Jn0003191	NCP	factor	1.5	1.5	<1	30%	Pass	
Duplicate									
Net Acidity (Including ANC)				Result 1	Result 2	RPD			
SPOCAS - Net Acidity - ASSMAC (Acidity Units)	N22-Jn0003191	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
SPOCAS - Net Acidity - ASSMAC (Sulfur Units)	N22-Jn0003191	NCP	% S	N/A	N/A	N/A	30%	Pass	
SPOCAS - Liming rate - ASSMAC	N22-Jn0003191	NCP	kg CaCO3/t	N/A	N/A	N/A	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5

Authorised by:

Andrew Black	Analytical Services Manager
Myles Clark	Senior Analyst-SPOCAS
Jonathon Angell	Senior Analyst-Sample Properties

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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NATA # 1261 Site # 18217

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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Alliance Geotechnical
Contact name:	Anurag Sobti
Project name:	AUSGRID CABLE PROJECT
Project ID:	14777
Turnaround time:	3 Day
Date/Time received	May 31, 2022 7:33 PM
Eurofins reference	893534

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Anurag Sobti - anurag@allgeo.com.au.

Note: A copy of these results will also be delivered to the general Alliance Geotechnical email address.

Global Leader - Results you can trust

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066 — 02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au mehran@allgeo.com.au

Analyses: Allaince WAC Suite 2

Containers: 1L Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964 WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not known)

☐ Overnight (9am)* ☐ 1 Day* ☐ 2 Day* ☑ 3 Day* ☐ 5 Day ☐ Other ( ) * Surcharges apply

3 Day TAT at standard rates as per agreement.

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Sample Comments / Dangerous Goods Hazard Warning
1	BH8 (0.3-0.4m)	26/5/22	S	
2	0.8-0.9m	↓		
3	1.3-1.4m	↓		
4	BH9 (0.3-0.4m)	26/5/22		
5	(0.5-0.6m)	↓		
6	(1.2-1.3m)	↓		
7	BH14 (0.3-0.4m)	26/5/22		
8	(0.6-0.7m)	↓		
9	(1.2-1.3m)	↓		
10	BH15 (0.2-0.3m)	26/5/22		
11	(0.6-0.8m)	↓		
12	(1.2-1.4m)	↓		
13	BH16 (0.2-0.3m)	26/5/22		
14	(0.6-0.9m)	↓		
15	(1.2-1.5m)	↓		
16	BH18 (0.3-0.4m)	26/5/22		
17	(0.6-0.8m)	↓		
18	(1.3-1.5m)	↓		
	Total Counts			

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal — Name: Aaron Hong — Signature: — Date: 31/05/2022 — Time:

Eurofins | mgt Laboratory Use Only							
Received By	BP	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date 31/05/22	Time 7.35 pm	Temperature 16.3°C
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date __/__/__	Time __:__	Report № #893534

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066 — 02 9900 8400 — EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 — EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 — EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses: Alliance WAC Suite 2

Containers: 1L Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not ticked)

☐ Overnight (9am)*
☐ 1 Day*
☐ 2 Day*
☑ 3 Day*
☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Alliance WAC Suite 2	Sample Comments / Dangerous Goods Hazard Warning
1	BH19 (0.3-0.4m)	27/5/22	S		
2	(0.5-0.6m)				
3	(0.8-0.9m)				
4	W2SBH1 (0.25-0.4m)				
5	(0.7-0.9m)				
6	(1.2-1.4m)				
7	W2SBH3 (0.2-0.4m)				
8	(0.8-0.9m)				
9	(0.5-0.7m)				
10	W2SBH4 (0.3-0.4m)				
11	(0.6-0.8m)				
12	(1.2-1.5m)				
13					
14					
15					
16					
17					
18					
	Total Counts				

3 Day TAT at standard rates as per agreement.

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal — Name: Aaron Hong — Signature: [signature] — Date: 31/05/2022 — Time:

Eurofins | mgt Laboratory Use Only								
Received By	BP	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	[signature]	Date	31/05/22	Time	7:32pm	Temperature	10.3°C
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	/ /	Time	:	Report №	#893534

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

eurofins | Environment Testing

Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

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Attention: **Anurag Sobti**

Report **893534-S-V2**
Project name AUSGRID CABLE PROJECT
Project ID 14777
Received Date May 31, 2022

Client Sample ID			G01 **BH8 (0.3-0.4 M)**	**BH8 (0.8-0.9 M)**	G01 **BH9 (0.3-0.4 M)**	G01 **BH9 (0.5-0.6 M)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000580**	**S22-Jn0000581**	**S22-Jn0000582**	**S22-Jn0000583**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 40	< 20	< 40	< 40
TRH C15-C28	50	mg/kg	880	< 50	1700	< 100
TRH C29-C36	50	mg/kg	430	51	360	< 100
TRH C10-C36 (Total)	50	mg/kg	1310	51	2060	< 100
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 100	< 50	< 100	< 100
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 100	< 50	< 100	< 100
TRH >C16-C34	100	mg/kg	2300	< 100	2400	< 200
TRH >C34-C40	100	mg/kg	1300	100	660	< 200
TRH >C10-C40 (total)*	100	mg/kg	3600	100	3060	< 200
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	98	96	71	88
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	50	0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	50	0.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	50	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	30	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	29	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	27	0.5
Benzo(b&j)fluoranthene N07	0.5	mg/kg	< 0.5	< 0.5	48	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	18	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	52	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	30	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	6.6	< 0.5

Client Sample ID			[G01]BH8 (0.3-0.4 M)	BH8 (0.8-0.9 M)	[G01]BH9 (0.3-0.4 M)	[G01]BH9 (0.5-0.6 M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0000580	S22-Jn0000581	S22-Jn0000582	S22-Jn0000583
Date Sampled			May 26, 2022	May 26, 2022	May 26, 2022	May 26, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	57	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	17	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	30	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	53	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	410	0.5
2-Fluorobiphenyl (surr.)	1	%	147	109	125	135
p-Terphenyl-d14 (surr.)	1	%	150	124	[Q09]148	136
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 1	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 10	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	[Q09]INT	126	132	108
Tetrachloro-m-xylene (surr.)	1	%	143	119	138	124
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	[Q09]INT	126	132	108
Tetrachloro-m-xylene (surr.)	1	%	143	119	138	124

Client Sample ID			G01 BH8 (0.3-0.4 M)	BH8 (0.8-0.9 M)	G01 BH9 (0.3-0.4 M)	G01 BH9 (0.5-0.6 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000580**	**S22-Jn0000581**	**S22-Jn0000582**	**S22-Jn0000583**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	3.8	< 2	2.9	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	6.2	< 5	6.0	< 5
Copper	5	mg/kg	33	< 5	80	< 5
Lead	5	mg/kg	22	< 5	25	94
Mercury	0.1	mg/kg	0.1	< 0.1	0.3	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	19	< 5	44	18
% Moisture	1	%	2.1	2.1	3.7	3.3

Client Sample ID			G01 BH14 (0.3-0.4 M)	BH14 (0.6-0.7 M)	G01 BH15 (0.2-0.3 M)	BH15 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000584**	**S22-Jn0000585**	**S22-Jn0000586**	**S22-Jn0000587**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 40	< 20	< 40	< 20
TRH C15-C28	50	mg/kg	1900	< 50	1300	65
TRH C29-C36	50	mg/kg	470	< 50	290	< 50
TRH C10-C36 (Total)	50	mg/kg	2370	< 50	1590	65
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 100	< 50	< 100	< 50
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 100	< 50	< 100	< 50
TRH >C16-C34	100	mg/kg	2900	< 100	1900	110
TRH >C34-C40	100	mg/kg	760	< 100	520	< 100
TRH >C10-C40 (total)*	100	mg/kg	3660	< 100	2420	110
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	93	96	94	109
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 50	< 0.5	< 20	< 1
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	< 50	0.6	< 20	< 1
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	75	1.2	33	1.9
Acenaphthene	0.5	mg/kg	< 2	< 0.5	< 1	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 5	< 0.5	< 2	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 20	< 0.5	< 20	< 1
Benzo(a)pyrene	0.5	mg/kg	< 50	< 0.5	< 20	< 1

Client Sample ID			[G01]BH14 (0.3-0.4 M)	BH14 (0.6-0.7 M)	[G01]BH15 (0.2-0.3 M)	BH15 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000584**	**S22-Jn0000585**	**S22-Jn0000586**	**S22-Jn0000587**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 50	< 0.5	< 20	< 1
Benzo(g.h.i)perylene	0.5	mg/kg	< 50	< 0.5	< 20	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 50	< 0.5	< 20	< 1
Chrysene	0.5	mg/kg	< 50	< 0.5	< 20	< 1
Dibenz(a.h)anthracene	0.5	mg/kg	< 10	< 0.5	< 5	< 0.5
Fluoranthene	0.5	mg/kg	< 5	< 0.5	< 50	< 1
Fluorene	0.5	mg/kg	< 1	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 20	< 0.5	< 20	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 5	< 0.5	< 2	< 0.5
Pyrene	0.5	mg/kg	< 50	< 0.5	< 50	< 5
Total PAH*	0.5	mg/kg	< 50	< 0.5	< 50	< 5
2-Fluorobiphenyl (surr.)	1	%	129	120	143	144
p-Terphenyl-d14 (surr.)	1	%	138	139	[Q09]INT	[Q09]INT
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	76	[Q09]INT	[Q09]INT	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	130	147	INT	INT
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1

Client Sample ID			[G01]BH14 (0.3-0.4 M)	BH14 (0.6-0.7 M)	[G01]BH15 (0.2-0.3 M)	BH15 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000584**	**S22-Jn0000585**	**S22-Jn0000586**	**S22-Jn0000587**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	76	[Q09]INT	[Q09]INT	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	130	147	INT	INT
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.7	< 5	7.7	< 5
Copper	5	mg/kg	18	< 5	6.6	< 5
Lead	5	mg/kg	13	< 5	47	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	25	< 5	17	< 5
% Moisture	1	%	6.0	2.8	3.3	< 1

Client Sample ID			[G01]BH16 (0.2-0.3 M)	BH16 (0.6-0.9 M)	BH18 (0.3-0.4 M)	BH18 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000588**	**S22-Jn0000589**	**S22-Jn0000590**	**S22-Jn0000591**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 40	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	3300	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	740	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	4040	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 100	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 100	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	4300	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	950	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	5250	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	107	101	106	103

Client Sample ID			[G01]BH16 (0.2-0.3 M)	BH16 (0.6-0.9 M)	BH18 (0.3-0.4 M)	BH18 (0.6-0.8 M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0000588	S22-Jn0000589	S22-Jn0000590	S22-Jn0000591
Date Sampled			May 26, 2022	May 26, 2022	May 26, 2022	May 26, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	190	< 1	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	190	< 1	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	190	1.8	1.2	1.2
Acenaphthene	0.5	mg/kg	13	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	45	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	120	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	120	< 1	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	80	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	83	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	130	< 1	< 0.5	< 0.5
Chrysene	0.5	mg/kg	120	< 1	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	30	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	260	< 2	< 0.5	< 0.5
Fluorene	0.5	mg/kg	7.2	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	73	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	100	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	250	< 2	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	1500	< 2	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	126	111	89	91
p-Terphenyl-d14 (surr.)	1	%	[Q09]INT	128	94	88
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	123	105	100	105
Tetrachloro-m-xylene (surr.)	1	%	144	114	94	98

Client Sample ID			[G01]BH16 (0.2-0.3 M)	BH16 (0.6-0.9 M)	BH18 (0.3-0.4 M)	BH18 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000588**	**S22-Jn0000589**	**S22-Jn0000590**	**S22-Jn0000591**
Date Sampled			**May 26, 2022**	**May 26, 2022**	**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	123	105	100	105
Tetrachloro-m-xylene (surr.)	1	%	144	114	94	98
Heavy Metals						
Arsenic	2	mg/kg	< 2	2.5	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	12	< 5	< 5	< 5
Copper	5	mg/kg	62	< 5	< 5	5.2
Lead	5	mg/kg	12	< 5	< 5	< 5
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	20	< 5	< 5	< 5
Zinc	5	mg/kg	35	< 5	< 5	< 5
% Moisture	1	%	2.3	11	3.2	1.4

Client Sample ID			BH19 (0.3-0.4 M)	BH19 (0.5-0.6 M)	[G01]W2SBH1 (0.25-0.4 M)	W2SBH1 (0.7-0.9 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000592**	**S22-Jn0000593**	**S22-Jn0000594**	**S22-Jn0000595**
Date Sampled			**May 27, 2022**	**May 27, 2022**	**May 27, 2022**	**May 27, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	360	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	270	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	630	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	550	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	180	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	730	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			BH19 (0.3-0.4 M)	BH19 (0.5-0.6 M)	[G01]W2SBH1 (0.25-0.4 M)	W2SBH1 (0.7-0.9 M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0000592	S22-Jn0000593	S22-Jn0000594	S22-Jn0000595
Date Sampled			May 27, 2022	May 27, 2022	May 27, 2022	May 27, 2022
Test/Reference	LOR	Unit				
BTEX						
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	106	105	106	109
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	12	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	12	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	12	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	3.9	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	5.3	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	8.7	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	7.1	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	4.1	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	7.6	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	9.7	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	1.2	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	10	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	3.3	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	15	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	76	< 0.5
2-Fluorobiphenyl (surr.)	1	%	89	89	100	89
p-Terphenyl-d14 (surr.)	1	%	107	100	108	89
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05

Client Sample ID			BH19 (0.3-0.4 M)	BH19 (0.5-0.6 M)	[G01]W2SBH1 (0.25-0.4 M)	W2SBH1 (0.7-0.9 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000592**	**S22-Jn0000593**	**S22-Jn0000594**	**S22-Jn0000595**
Date Sampled			**May 27, 2022**	**May 27, 2022**	**May 27, 2022**	**May 27, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	132	101	[Q09]INT	119
Tetrachloro-m-xylene (surr.)	1	%	107	95	86	96
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	132	101	[Q09]INT	119
Tetrachloro-m-xylene (surr.)	1	%	107	95	86	96
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	2.7	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.3	< 5	7.3	< 5
Copper	5	mg/kg	60	< 5	24	5.6
Lead	5	mg/kg	< 5	< 5	450	35
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.1	0.3
Nickel	5	mg/kg	46	< 5	< 5	< 5
Zinc	5	mg/kg	47	< 5	68	18
% Moisture	1	%	3.5	3.0	6.0	3.4

Client Sample ID			W2SBH3 (0.2-0.4 M)	W2SBH3 (0.8-0.9 M)	W2SBH4 (0.3-0.4 M)	W2SBH4 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000596**	**S22-Jn0000597**	**S22-Jn0000598**	**S22-Jn0000599**
Date Sampled			**May 27, 2022**	**May 27, 2022**	**May 27, 2022**	**May 27, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100

Client Sample ID			W2SBH3 (0.2-0.4 M)	W2SBH3 (0.8-0.9 M)	W2SBH4 (0.3-0.4 M)	W2SBH4 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000596**	**S22-Jn0000597**	**S22-Jn0000598**	**S22-Jn0000599**
Date Sampled			**May 27, 2022**	**May 27, 2022**	**May 27, 2022**	**May 27, 2022**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	118	110	114	114
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	0.6	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	83	84	87	101
p-Terphenyl-d14 (surr.)	1	%	85	90	87	125
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			W2SBH3 (0.2-0.4 M)	W2SBH3 (0.8-0.9 M)	W2SBH4 (0.3-0.4 M)	W2SBH4 (0.6-0.8 M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0000596**	**S22-Jn0000597**	**S22-Jn0000598**	**S22-Jn0000599**
Date Sampled			**May 27, 2022**	**May 27, 2022**	**May 27, 2022**	**May 27, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	113	128	125	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	96	99	99	110
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	113	128	125	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	96	99	99	110
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	40	< 5	9.3	< 5
Copper	5	mg/kg	58	< 5	37	< 5
Lead	5	mg/kg	< 5	9.2	29	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	140	< 5	5.5	< 5
Zinc	5	mg/kg	64	36	31	< 5
% Moisture	1	%	6.3	2.7	5.6	4.9

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jun 02, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 02, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 02, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jun 02, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 08, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Jun 02, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Jun 02, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Jun 02, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jun 01, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

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Address: 10 Welder Road
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NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 893534
Phone: 1800 288 188
Fax: 02 9675 1888

Received: May 31, 2022 7:33 PM
Due: Jun 3, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH8 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000580		X	X
2	BH8 (0.8-0.9 M)	May 26, 2022		Soil	S22-Jn0000581		X	X
3	BH9 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000582		X	X
4	BH9 (0.5-0.6 M)	May 26, 2022		Soil	S22-Jn0000583		X	X
5	BH14 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000584		X	X
6	BH14 (0.6-0.7	May 26, 2022		Soil	S22-		X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
	M)				Jn0000585			
7	BH15 (0.2-0.3 M)	May 26, 2022		Soil	S22-Jn0000586		X	X
8	BH15 (0.6-0.8 M)	May 26, 2022		Soil	S22-Jn0000587		X	X
9	BH16 (0.2-0.3 M)	May 26, 2022		Soil	S22-Jn0000588		X	X
10	BH16 (0.6-0.9 M)	May 26, 2022		Soil	S22-Jn0000589		X	X
11	BH18 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000590		X	X
12	BH18 (0.6-0.8 M)	May 26, 2022		Soil	S22-Jn0000591		X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
13	BH19 (0.3-0.4 M)	May 27, 2022		Soil	S22-Jn0000592		X	X
14	BH19 (0.5-0.6 M)	May 27, 2022		Soil	S22-Jn0000593		X	X
15	W2SBH1 (0.25-0.4 M)	May 27, 2022		Soil	S22-Jn0000594		X	X
16	W2SBH1 (0.7-0.9 M)	May 27, 2022		Soil	S22-Jn0000595		X	X
17	W2SBH3 (0.2-0.4 M)	May 27, 2022		Soil	S22-Jn0000596		X	X
18	W2SBH3 (0.8-0.9 M)	May 27, 2022		Soil	S22-Jn0000597		X	X
19	W2SBH4 (0.3-	May 27, 2022		Soil	S22-		X	X

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Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
	0.4 M)				Jn0000598			
20	W2SBH4 (0.6-0.8 M)	May 27, 2022		Soil	S22-Jn0000599		X	X
21	BH8 (1.3-1.4 M)	May 26, 2022		Soil	S22-Jn0000600	X		
22	BH9 (1.2-1.3 M)	May 26, 2022		Soil	S22-Jn0000601	X		
23	BH14 (1.2-1.3 M)	May 26, 2022		Soil	S22-Jn0000602	X		
24	BH15 (1.2-1.4 M)	May 26, 2022		Soil	S22-Jn0000603	X		
25	BH16 (1.2-1.5 M)	May 26, 2022		Soil	S22-Jn0000604	X		

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Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
26	BH18 (1.3-1.5 M)	May 26, 2022		Soil	S22-Jn0000605	X		
27	BH19 (0.8-0.9 M)	May 27, 2022		Soil	S22-Jn0000606	X		
28	W2SBH1 (1.2-1.4 M)	May 27, 2022		Soil	S22-Jn0000607	X		
29	W2SBH3 (0.5-0.7 M)	May 27, 2022		Soil	S22-Jn0000608	X		
30	W2SBH4 (1.2-1.5 M)	May 27, 2022		Soil	S22-Jn0000609	X		
Test Counts						10	20	20

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Total PAH*	mg/kg	-			0.5	N/A	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	84			70-130	Pass	
TRH C10-C14	%	98			70-130	Pass	
Naphthalene	%	73			70-130	Pass	
TRH C6-C10	%	81			70-130	Pass	
TRH >C10-C16	%	99			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	76			70-130	Pass	
Toluene	%	78			70-130	Pass	
Ethylbenzene	%	88			70-130	Pass	
m&p-Xylenes	%	94			70-130	Pass	
o-Xylene	%	90			70-130	Pass	
Xylenes - Total*	%	93			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	123			70-130	Pass	
Acenaphthylene	%	121			70-130	Pass	
Benz(a)anthracene	%	105			70-130	Pass	
Benzo(a)pyrene	%	117			70-130	Pass	
Benzo(b&j)fluoranthene	%	119			70-130	Pass	
Benzo(g.h.i)perylene	%	112			70-130	Pass	
Benzo(k)fluoranthene	%	116			70-130	Pass	
Chrysene	%	118			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dibenz(a.h)anthracene	%	118			70-130	Pass	
Fluoranthene	%	126			70-130	Pass	
Fluorene	%	126			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	114			70-130	Pass	
Naphthalene	%	124			70-130	Pass	
Phenanthrene	%	122			70-130	Pass	
Pyrene	%	126			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	127			70-130	Pass	
4.4'-DDD	%	119			70-130	Pass	
4.4'-DDT	%	125			70-130	Pass	
a-HCH	%	123			70-130	Pass	
Aldrin	%	126			70-130	Pass	
b-HCH	%	118			70-130	Pass	
d-HCH	%	125			70-130	Pass	
Dieldrin	%	128			70-130	Pass	
Endosulfan II	%	127			70-130	Pass	
Endosulfan sulphate	%	128			70-130	Pass	
Endrin	%	124			70-130	Pass	
Heptachlor	%	122			70-130	Pass	
Heptachlor epoxide	%	121			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	130			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	108			80-120	Pass	
Cadmium	%	109			80-120	Pass	
Chromium	%	108			80-120	Pass	
Copper	%	103			80-120	Pass	
Lead	%	104			80-120	Pass	
Mercury	%	115			80-120	Pass	
Nickel	%	106			80-120	Pass	
Zinc	%	106			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Jn0003422	NCP	%	81			70-130	Pass	
TRH C10-C14	N22-My0065811	NCP	%	86			70-130	Pass	
Naphthalene	S22-Jn0003422	NCP	%	96			70-130	Pass	
TRH C6-C10	S22-Jn0003422	NCP	%	81			70-130	Pass	
TRH >C10-C16	N22-My0065811	NCP	%	91			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Jn0003422	NCP	%	96			70-130	Pass	
Toluene	S22-Jn0003422	NCP	%	94			70-130	Pass	
Ethylbenzene	S22-Jn0003422	NCP	%	94			70-130	Pass	
m&p-Xylenes	S22-Jn0003422	NCP	%	94			70-130	Pass	
o-Xylene	S22-Jn0003422	NCP	%	94			70-130	Pass	
Xylenes - Total*	S22-Jn0003422	NCP	%	94			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Mercury	N22-My0066206	NCP	%	117			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Jn0000591	CP	%	85			70-130	Pass	
Acenaphthylene	S22-Jn0000591	CP	%	85			70-130	Pass	
Anthracene	S22-Jn0000591	CP	%	83			70-130	Pass	
Benzo(a)pyrene	S22-Jn0000591	CP	%	91			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Jn0000591	CP	%	74			70-130	Pass	
Benzo(k)fluoranthene	S22-Jn0000591	CP	%	93			70-130	Pass	
Chrysene	S22-Jn0000591	CP	%	85			70-130	Pass	
Fluoranthene	S22-Jn0000591	CP	%	83			70-130	Pass	
Fluorene	S22-Jn0000591	CP	%	85			70-130	Pass	
Naphthalene	S22-Jn0000591	CP	%	85			70-130	Pass	
Phenanthrene	S22-Jn0000591	CP	%	82			70-130	Pass	
Pyrene	S22-Jn0000591	CP	%	81			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Jn0000591	CP	%	101			70-130	Pass	
4.4'-DDE	S22-Jn0000591	CP	%	95			70-130	Pass	
4.4'-DDT	S22-Jn0000591	CP	%	104			70-130	Pass	
a-HCH	S22-Jn0000591	CP	%	89			70-130	Pass	
Aldrin	S22-Jn0000591	CP	%	89			70-130	Pass	
b-HCH	S22-Jn0000591	CP	%	81			70-130	Pass	
d-HCH	S22-Jn0000591	CP	%	93			70-130	Pass	
Dieldrin	S22-Jn0000591	CP	%	92			70-130	Pass	
Endosulfan I	S22-Jn0000591	CP	%	91			70-130	Pass	
Endosulfan II	S22-Jn0000591	CP	%	94			70-130	Pass	
Endosulfan sulphate	S22-Jn0000591	CP	%	103			70-130	Pass	
Endrin	S22-Jn0000591	CP	%	105			70-130	Pass	
Endrin aldehyde	S22-Jn0000591	CP	%	118			70-130	Pass	
Endrin ketone	S22-Jn0000591	CP	%	107			70-130	Pass	
g-HCH (Lindane)	S22-Jn0000591	CP	%	99			70-130	Pass	
Heptachlor	S22-Jn0000591	CP	%	87			70-130	Pass	
Heptachlor epoxide	S22-Jn0000591	CP	%	102			70-130	Pass	
Hexachlorobenzene	S22-Jn0000591	CP	%	91			70-130	Pass	
Methoxychlor	S22-Jn0000591	CP	%	78			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S22-Jn0000591	CP	%	77			70-130	Pass	
Aroclor-1260	S22-Jn0000591	CP	%	102			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Jn0000597	CP	%	113			75-125	Pass	
Cadmium	S22-Jn0000597	CP	%	116			75-125	Pass	
Chromium	S22-Jn0000597	CP	%	101			75-125	Pass	
Copper	S22-Jn0000597	CP	%	103			75-125	Pass	
Lead	S22-Jn0000597	CP	%	116			75-125	Pass	
Nickel	S22-Jn0000597	CP	%	102			75-125	Pass	
Zinc	S22-Jn0000597	CP	%	115			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Jn0003421	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S22-Jn0003421	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Jn0003421	NCP	mg/kg	< 20	< 20	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Jn0003421	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Jn0003421	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Jn0003421	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Jn0003421	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Jn0003421	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Jn0003421	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0000580	CP	mg/kg	3.8	3.4	11	30%	Pass	
Cadmium	S22-Jn0000580	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0000580	CP	mg/kg	6.2	5.4	14	30%	Pass	
Copper	S22-Jn0000580	CP	mg/kg	33	22	41	30%	Fail	Q15
Lead	S22-Jn0000580	CP	mg/kg	22	19	16	30%	Pass	
Mercury	S22-Jn0000580	CP	mg/kg	0.1	0.1	9.0	30%	Pass	
Nickel	S22-Jn0000580	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Jn0000580	CP	mg/kg	19	13	38	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0000582	CP	%	3.7	3.6	3.0	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
g-HCH (Lindane)	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Jn0000590	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Jn0000590	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Jn0000590	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	S22-Jn0000592	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Jn0000592	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Jn0000592	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	S22-Jn0000592	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Jn0000592	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Jn0000592	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0000592	CP	%	3.5	3.4	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0000598	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-Jn0000598	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0000598	CP	mg/kg	9.3	7.2	25	30%	Pass	
Lead	S22-Jn0000598	CP	mg/kg	29	19	43	30%	Fail	Q15
Mercury	S22-Jn0000598	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0000598	CP	mg/kg	5.5	5.2	6.0	30%	Pass	
Zinc	S22-Jn0000598	CP	mg/kg	31	31	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0000599	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-Jn0000599	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0000599	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S22-Jn0000599	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-Jn0000599	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S22-Jn0000599	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0000599	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Jn0000599	CP	mg/kg	< 5	< 5	<1	30%	Pass	

Comments

V2- new version with repeated PAHs on samples Jn0000582 and Jn0000588 as per client request.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile
Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention:	Anurag Sobti
Report	893534-AID-V2
Project Name	AUSGRID CABLE PROJECT
Project ID	14777
Received Date	May 31, 2022
Date Reported	Jun 08, 2022

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name AUSGRID CABLE PROJECT
Project ID 14777
Date Sampled May 26, 2022 to May 27, 2022
Report 893534-AID-V2

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH8 (0.3-0.4 M)	22-Jn0000580	May 26, 2022	Approximate Sample 244g Sample consisted of: Light brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH8 (0.8-0.9 M)	22-Jn0000581	May 26, 2022	Approximate Sample 336g Sample consisted of: Light grey coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH9 (0.3-0.4 M)	22-Jn0000582	May 26, 2022	Approximate Sample 165g Sample consisted of: Light grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH9 (0.5-0.6 M)	22-Jn0000583	May 26, 2022	Approximate Sample 254g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH14 (0.3-0.4 M)	22-Jn0000584	May 26, 2022	Approximate Sample 248g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH14 (0.6-0.7 M)	22-Jn0000585	May 26, 2022	Approximate Sample 328g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH15 (0.2-0.3 M)	22-Jn0000586	May 26, 2022	Approximate Sample 239g Sample consisted of: Brown coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH15 (0.6-0.8 M)	22-Jn0000587	May 26, 2022	Approximate Sample 188g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH16 (0.2-0.3 M)	22-Jn0000588	May 26, 2022	Approximate Sample 340g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH16 (0.6-0.9 M)	22-Jn0000589	May 26, 2022	Approximate Sample 249g Sample consisted of: Brown coarse-grained sandy soil, plant residue and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH18 (0.3-0.4 M)	22-Jn0000590	May 26, 2022	Approximate Sample 176g Sample consisted of: Off-white coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH18 (0.6-0.8 M)	22-Jn0000591	May 26, 2022	Approximate Sample 215g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH19 (0.3-0.4 M)	22-Jn0000592	May 27, 2022	Approximate Sample 356g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH19 (0.5-0.6 M)	22-Jn0000593	May 27, 2022	Approximate Sample 311g Sample consisted of: Off-white coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH1 (0.25-0.4 M)	22-Jn0000594	May 27, 2022	Approximate Sample 217g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH1 (0.7-0.9 M)	22-Jn0000595	May 27, 2022	Approximate Sample 426g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH3 (0.2-0.4 M)	22-Jn0000596	May 27, 2022	Approximate Sample 379g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH3 (0.8-0.9 M)	22-Jn0000597	May 27, 2022	Approximate Sample 538g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH4 (0.3-0.4 M)	22-Jn0000598	May 27, 2022	Approximate Sample 266g Sample consisted of: Light brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH4 (0.6-0.8 M)	22-Jn0000599	May 27, 2022	Approximate Sample 309g Sample consisted of: Light brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jun 01, 2022	Indefinite

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
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NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 893534
Phone: 1800 288 188
Fax: 02 9675 1888

Received: May 31, 2022 7:33 PM
Due: Jun 3, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Moisture Set	Alliance WAC Suite 2:TRH/BTEX/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	BH8 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000580		X	X
2	BH8 (0.8-0.9 M)	May 26, 2022		Soil	S22-Jn0000581		X	X
3	BH9 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000582		X	X
4	BH9 (0.5-0.6 M)	May 26, 2022		Soil	S22-Jn0000583		X	X
5	BH14 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000584		X	X
6	BH14 (0.6-0.7	May 26, 2022		Soil	S22-		X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
	M)				Jn0000585			
7	BH15 (0.2-0.3 M)	May 26, 2022		Soil	S22-Jn0000586		X	X
8	BH15 (0.6-0.8 M)	May 26, 2022		Soil	S22-Jn0000587		X	X
9	BH16 (0.2-0.3 M)	May 26, 2022		Soil	S22-Jn0000588		X	X
10	BH16 (0.6-0.9 M)	May 26, 2022		Soil	S22-Jn0000589		X	X
11	BH18 (0.3-0.4 M)	May 26, 2022		Soil	S22-Jn0000590		X	X
12	BH18 (0.6-0.8 M)	May 26, 2022		Soil	S22-Jn0000591		X	X

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Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
13	BH19 (0.3-0.4 M)	May 27, 2022		Soil	S22-Jn0000592		X	X
14	BH19 (0.5-0.6 M)	May 27, 2022		Soil	S22-Jn0000593		X	X
15	W2SBH1 (0.25-0.4 M)	May 27, 2022		Soil	S22-Jn0000594		X	X
16	W2SBH1 (0.7-0.9 M)	May 27, 2022		Soil	S22-Jn0000595		X	X
17	W2SBH3 (0.2-0.4 M)	May 27, 2022		Soil	S22-Jn0000596		X	X
18	W2SBH3 (0.8-0.9 M)	May 27, 2022		Soil	S22-Jn0000597		X	X
19	W2SBH4 (0.3-	May 27, 2022		Soil	S22-		X	X

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Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
	0.4 M)				Jn0000598			
20	W2SBH4 (0.6-0.8 M)	May 27, 2022		Soil	S22-Jn0000599		X	X
21	BH8 (1.3-1.4 M)	May 26, 2022		Soil	S22-Jn0000600	X		
22	BH9 (1.2-1.3 M)	May 26, 2022		Soil	S22-Jn0000601	X		
23	BH14 (1.2-1.3 M)	May 26, 2022		Soil	S22-Jn0000602	X		
24	BH15 (1.2-1.4 M)	May 26, 2022		Soil	S22-Jn0000603	X		
25	BH16 (1.2-1.5 M)	May 26, 2022		Soil	S22-Jn0000604	X		

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Sample Detail						HOLD	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254								
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794								
Mayfield Laboratory - NATA # 1261 Site # 25079								
Perth Laboratory - NATA # 2377 Site # 2370								
External Laboratory								
26	BH18 (1.3-1.5 M)	May 26, 2022		Soil	S22-Jn0000605	X		
27	BH19 (0.8-0.9 M)	May 27, 2022		Soil	S22-Jn0000606	X		
28	W2SBH1 (1.2-1.4 M)	May 27, 2022		Soil	S22-Jn0000607	X		
29	W2SBH3 (0.5-0.7 M)	May 27, 2022		Soil	S22-Jn0000608	X		
30	W2SBH4 (1.2-1.5 M)	May 27, 2022		Soil	S22-Jn0000609	X		
Test Counts						10	20	20

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Mehran Asadabadi**

Report **895868-L**
Project name ADDITIONAL - AUSGRID CABLE PROJECT
Project ID ADDITIONAL - 14777
Received Date Jun 08, 2022

Client Sample ID			**BH19 (0.3-0.4M)**	**W2SBH1 (0.25-0.4 M)**	**W2SBH3 (0.2-0.4 M)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0018184**	**S22-Jn0018727**	**S22-Jn0018728**
Date Sampled			**May 27, 2022**	**May 27, 2022**	**May 27, 2022**
Test/Reference	LOR	Unit			
Heavy Metals					
Lead	0.01	mg/L	-	0.04	-
Nickel	0.01	mg/L	0.12	-	0.09
USA Leaching Procedure					
Leachate Fluid[C01]		comment	1.0	1.0	1.0
pH (initial)	0.1	pH Units	8.9	9.0	8.6
pH (off)	0.1	pH Units	5.3	5.0	5.1
pH (USA HCl addition)	0.1	pH Units	2.3	2.2	2.2
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene	0.001	mg/L	-	< 0.001	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Heavy Metals	Sydney	Jun 10, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
USA Leaching Procedure	Sydney	Jun 10, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 10, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			

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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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NATA # 1261 Site # 1254

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Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
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Perth
46-48 Banksia Road
Welshpool WA 6106
Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

Eurofins Environment Testing NZ Limited
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Auckland
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Penrose, Auckland 1061
Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Order No.:
Report #: 895868
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 8, 2022 10:40 AM
Due: Jun 14, 2022
Priority: 3 Day
Contact Name: Mehran Asadabadi

Project Name: ADDITIONAL - AUSGRID CABLE PROJECT
Project ID: ADDITIONAL - 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	Nickel	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH19 (0.3-0.4M)	May 27, 2022		US Leachate	S22-Jn0018184			X	X
2	W2SBH1 (0.25-0.4 M)	May 27, 2022		US Leachate	S22-Jn0018727	X	X		X
3	W2SBH3 (0.2-0.4 M)	May 27, 2022		US Leachate	S22-Jn0018728			X	X
Test Counts						1	1	2	3

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Nickel			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Nickel			%	91			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S22-Jn0018184	CP	%	98			75-125	Pass	
Nickel	S22-Jn0018184	CP	%	94			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Benzo(a)pyrene	S22-Jn0023026	NCP	%	94			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel	B22-Jn0011042	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	B22-Jn0017036	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S22-Jn0023025	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

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Site Number 18217

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NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Mehran Asadabadi**

Report **896307-L**
Project name ADDITIONAL - AUSGRID CABLE PROJECT
Project ID ADDITIONAL - 14777
Received Date Jun 09, 2022

Client Sample ID			**BH9 (0.3-0.4 M)**	**BH16 (0.2-0.3 M)**
Sample Matrix			**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0021779**	**S22-Jn0021780**
Date Sampled			**May 26, 2022**	**May 26, 2022**
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene	0.001	mg/L	< 0.002	0.004
USA Leaching Procedure				
Leachate Fluid[C01]		comment	1.0	1.0
pH (initial)	0.1	pH Units	8.1	8.1
pH (off)	0.1	pH Units	5.0	4.5
pH (USA HCl addition)	0.1	pH Units	2.2	2.2

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 10, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
USA Leaching Procedure	Sydney	Jun 10, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			

eurofins | Environment Testing

web: www.eurofins.com.au
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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

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NATA # 1261 Site # 1254

Sydney
179 Magowar Road
Girraween NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Newcastle
4/52 Industrial Drive
Mayfield East NSW 2304
PO Box 60 Wickham 2293
Phone : +61 2 4968 8448
NATA # 1261 Site # 25079

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

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46-48 Banksia Road
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Phone : +61 8 6253 4444
NATA # 2377 Site # 2370

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35 O'Rorke Road
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Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name:	Alliance Geotechnical	**Order No.:**		**Received:**	Jun 9, 2022 8:52 AM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	896307	**Due:**	Jun 15, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Mehran Asadabadi
Project Name:	ADDITIONAL - AUSGRID CABLE PROJECT				
Project ID:	ADDITIONAL - 14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	USA Leaching Procedure
Melbourne Laboratory - NATA # 1261 Site # 1254							
Sydney Laboratory - NATA # 1261 Site # 18217						X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							
Mayfield Laboratory - NATA # 1261 Site # 25079							
Perth Laboratory - NATA # 2377 Site # 2370							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	BH9 (0.3-0.4 M)	May 26, 2022		US Leachate	S22-Jn0021779	X	X
2	BH16 (0.-0.3 M)	May 26, 2022		US Leachate	S22-Jn0021780	X	X
Test Counts						2	2

Internal Quality Control Review and Glossary

General

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2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

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mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

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CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
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NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

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Results <10 times the LOR: No Limit

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Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Benzo(a)pyrene	S22-Jn0023026	NCP	%	94			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S22-Jn0023025	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Robert Biviano	Analytical Services Manager
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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eurofins | Environment Testing

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Phone : +64 9 526 45 51
IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Alliance Geotechnical
Contact name:	Aaron Hong
Project name:	AUSGRID CABLE PROJECT
Project ID:	14777
Turnaround time:	3 Day
Date/Time received	Jun 16, 2022 7:17 PM
Eurofins reference	898325

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Aaron Hong - aaron@allgeo.com.au.

Note: A copy of these results will also be delivered to the general Alliance Geotechnical email address.

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory
Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
Unit 2, 91 Leach Highway, Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
2 Kingston Town Close, Oakleigh, VIC 3166
03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au mehran@allgeo.com.au

Analyses: Allaince WAC Suite 2

Containers: 1L Plastic | 250mL Plastic | 125mL Plastic | 200mL Amber Glass | 40mL VOA vial | 500mL PFAS Bottle | Jar (Glass or HDPE) | Other (Asbestos AS4964 WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not linked)
☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	Hold	Sample Comments / Dangerous Goods Hazard Warning
1	NS - BH6 (0.1-0.2)	8/6/22	S	✓		
2	BH6 (0.7-0.9)			✓	✓	
3	BH6 (0.4-0.6)			✓		3 Day TAT at standard rates as per agreement.
4	BH7 (0.1-0.2)			✓		
5	BH7 (0.4-0.6)			✓		
6	BH7 (1.2-1.4)				✓	
7	BH8 (0.2-0.3)			✓		
8	BH8 (0.3-0.4)			✓		
9	BH8 (0.8-0.9)			✓		
10	BH5 (0.3-0.4)			✓		
11	BH5 (0.4-0.6)			✓		
12	BH5 (0.8-0.9)			✓		
13	W2S - BH7 (0.3-0.4)			✓		
14	BH7 (0.4-0.5)			✓		
15	BH7 (0.7-0.8)			✓		
16	A2K - BH17 (0.4-0.6)	9/6/22		✓		
17	BH17 (0.7-0.9)			✓		
18	BH17 (1.2-1.5)			✓		
	Total Counts					

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal Name Aaron Hong Signature [signature] Date 15/6/22 Time

Eurofins | mgt Laboratory Use Only								
Received By	BP	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	[signature]	Date 16.6.22	Time 7:17	Temperature	17.1 °C
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date __/__/__	Time __:__	Report №	

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

#898325

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☑ Sydney Laboratory — Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066 — 02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au mehran@allgeo.com.au

Analyses: Allaince WAC Suite 2

Containers: 1L Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos ASIGNA, VIA Glass/Jars)

Turnaround Time (TAT) Requirements (Default will be 5 days if not ticked)

☐ Overnight (9am)* ☐ 1 Day* ☐ 2 Day* ☑ 3 Day* ☐ 5 Day

* Surcharges apply

☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	pH Screening	Mold	Sample Comments / Dangerous Goods Hazard Warning
1	A2K - BH20 (0.3-0.4m)	9/6/22	S	✓			
2	BH20 (0.4-0.5m)			✓			
3	BH20 (1.4-1.5m)			✓			
4	BH21 (0.3-0.4m)			✓			
5	BH21 (0.4-0.6m)			✓			
6	BH21 (1.0-1.5m)			✓			
7	BH13 (0.1-0.3m)	10/6/22		✓			
8	BH13 (0.5-0.6m)			✓			
9	BH13 (1.5-1.7m)			✓			
10	A2K - BH13 0.5m				✓		
11	1.0m				✓		
12	1.5m				✓		
13	2.0m				✓		
14	2.5m				✓		
15	3.0m				✓		
16	3.5m				✓		
17	4.0m				✓		
18	4.5m				✓		
	Total Counts						

3 Day TAT at standard rates as per agreement.

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal — Name: Aaron Hong — Signature: [signature] — Date: 15/6/22 — Time:

Eurofins | mgt Laboratory Use Only								
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	16/6/22	Time	7:17pm	Temperature 17.1°
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	__/__/__	Time	__:__	Report №

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#898325

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ABN 50 005 085 521

☑ Sydney Laboratory
Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
Unit 2, 91 Leach Highway, Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
2 Kingston Town Close, Oakleigh, VIC 3166
03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses: Allaince WAC Suite 2

Containers: 1L Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; 1ar (Glass or HDPE); Other (Asbestos AS4964, WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not boxed)

☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	pH Screening	Sample Comments / Dangerous Goods Hazard Warning
1	A2K-BH13 5.0m	10/6/22	S	✓	
2	5.5m				
3	6.0m			✓	
4	6.5m				
5	7.0m			✓	
6	7.5m				
7	8.0m			✓	
8	8.5m				
9	9.0m			✓	
10	9.5m				
11	10.0m			✓	
12					
13					
14					
15					
16					
17					
18					
	Total Counts				

3 Day TAT at standard rates as per agreement.

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal Name Aaron Hong Signature [signature] Date 15/6/22 Time

Eurofins | mgt Laboratory Use Only								
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date 16.6.22	Time 2:17pm	Temperature	17.1°
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date __/__/__	Time __/__	Report №	

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898325

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Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Aaron Hong**

Report **898325-S**
Project name AUSGRID CABLE PROJECT
Project ID 14777
Received Date Jun 16, 2022

Client Sample ID			**BH6(0.1-0.2.)**	**BH6(0.4-0.6.)**	[G01]**BH7(0.1-0.2.)**	**BH7(0.4-0.6.)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0038563**	**S22-Jn0038564**	**S22-Jn0038565**	**S22-Jn0038566**
Date Sampled			**Jun 08, 2022**	**Jun 08, 2022**	**Jun 08, 2022**	**Jun 08, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	210	190	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	210	190	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	270	270	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	270	270	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	102	88	126	121
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	5.8	5.6	0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	5.8	5.6	0.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	5.8	5.6	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	3.5	2.9	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	3.6	3.6	0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	2.2	2.4	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	2.0	2.3	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	3.0	2.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	3.8	4.3	0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	1.1	1.0	< 0.5

Client Sample ID			BH6(0.1-0.2.)	BH6(0.4-0.6.)	G01BH7(0.1-0.2.)	BH7(0.4-0.6.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038563	S22-Jn0038564	S22-Jn0038565	S22-Jn0038566
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	6.7	4.3	0.7
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	1.7	1.7	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	4.1	1.6	< 0.5
Pyrene	0.5	mg/kg	< 0.5	7.7	5.6	0.8
Total PAH*	0.5	mg/kg	< 0.5	40	32	2.5
2-Fluorobiphenyl (surr.)	1	%	101	104	134	100
p-Terphenyl-d14 (surr.)	1	%	91	103	125	107
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	96	86	65	87
Tetrachloro-m-xylene (surr.)	1	%	93	86	120	93
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	96	86	65	87
Tetrachloro-m-xylene (surr.)	1	%	93	86	120	93

Client Sample ID			BH6(0.1-0.2.)	BH6(0.4-0.6.)	[G01]BH7(0.1-0.2.)	BH7(0.4-0.6.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038563	S22-Jn0038564	S22-Jn0038565	S22-Jn0038566
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	< 2	11	4.9	3.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	9.4	26	17	19
Copper	5	mg/kg	67	20	45	8.6
Lead	5	mg/kg	< 5	110	44	29
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	36	< 5	12	5.4
Zinc	5	mg/kg	50	36	100	10
% Moisture	1	%	8.6	19	13	24

Client Sample ID			[G01]BH8(0.2-0.3.)	[G01]BH8(0.3-0.4.)	BH8(0.8-0.9.)	[G01]BH5(0.3-0.4.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038567	S22-Jn0038568	S22-Jn0038569	S22-Jn0038570
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	36	< 20	< 20
TRH C15-C28	50	mg/kg	380	740	< 50	270
TRH C29-C36	50	mg/kg	54	110	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	434	886	< 50	270
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	550	1000	< 100	380
TRH >C34-C40	100	mg/kg	150	240	< 100	100
TRH >C10-C40 (total)*	100	mg/kg	700	1240	< 100	480
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	86	84	97	76
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	8.3	22	< 0.5	5.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	8.3	22	0.6	5.5
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	8.3	22	1.2	5.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
Anthracene	0.5	mg/kg	0.9	2.5	< 0.5	0.9
Benz(a)anthracene	0.5	mg/kg	4.5	12	< 0.5	2.6
Benzo(a)pyrene	0.5	mg/kg	5.5	14	< 0.5	3.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	3.7	8.9	< 0.5	2.4

Client Sample ID			G01BH8(0.2-0.3.)	G01BH8(0.3-0.4.)	BH8(0.8-0.9.)	G01BH5(0.3-0.4.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038567	S22-Jn0038568	S22-Jn0038569	S22-Jn0038570
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(g.h.i)perylene	0.5	mg/kg	3.3	8.0	< 0.5	2.6
Benzo(k)fluoranthene	0.5	mg/kg	4.4	11	< 0.5	3.0
Chrysene	0.5	mg/kg	5.7	13	< 0.5	4.2
Dibenz(a.h)anthracene	0.5	mg/kg	1.2	3.9	< 0.5	1.0
Fluoranthene	0.5	mg/kg	8.1	20	< 0.5	4.7
Fluorene	0.5	mg/kg	< 0.5	1.0	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	2.6	6.3	< 0.5	1.8
Naphthalene	0.5	mg/kg	< 0.5	0.5	< 0.5	0.6
Phenanthrene	0.5	mg/kg	4.5	12	< 0.5	2.7
Pyrene	0.5	mg/kg	10	25	< 0.5	5.7
Total PAH*	0.5	mg/kg	54	140	< 0.5	36
2-Fluorobiphenyl (surr.)	1	%	127	122	72	114
p-Terphenyl-d14 (surr.)	1	%	135	126	105	103
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
a-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 10	< 10	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	88	94	92	55
Tetrachloro-m-xylene (surr.)	1	%	106	100	91	106
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Aroclor-1221	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Aroclor-1232	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Aroclor-1242	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Aroclor-1248	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Aroclor-1254	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Aroclor-1260	0.1	mg/kg	< 1	< 1	< 0.1	< 1

Client Sample ID			G01 BH8(0.2-0.3.)	G01 BH8(0.3-0.4.)	BH8(0.8-0.9.)	G01 BH5(0.3-0.4.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038567	S22-Jn0038568	S22-Jn0038569	S22-Jn0038570
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Total PCB*	0.1	mg/kg	< 1	< 1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	88	94	92	55
Tetrachloro-m-xylene (surr.)	1	%	106	100	91	106
Heavy Metals						
Arsenic	2	mg/kg	5.6	7.5	29	4.0
Cadmium	0.4	mg/kg	0.5	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	30	18	13
Copper	5	mg/kg	59	41	34	140
Lead	5	mg/kg	50	72	24	64
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	15	23	< 5	14
Zinc	5	mg/kg	85	76	< 5	54
% Moisture	1	%	11	21	19	8.9

Client Sample ID			BH5(0.4-0.6.)	BH5(0.8-0.9.)	G01 BH7(0.3-0.4.)	G01 BH7(0.4-0.5.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038571	S22-Jn0038572	S22-Jn0038573	S22-Jn0038574
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	300	52
TRH C15-C28	50	mg/kg	< 50	< 50	2100	330
TRH C29-C36	50	mg/kg	< 50	< 50	240	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	2640	382
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	63	12
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	420	73
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50	< 50	357	61
TRH >C16-C34	100	mg/kg	< 100	< 100	2300	350
TRH >C34-C40	100	mg/kg	< 100	< 100	270	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	2990	423
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	4.3	2.7
Toluene	0.1	mg/kg	< 0.1	< 0.1	1.2	0.6
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	0.4	0.4
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	1.0	0.9
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	0.4	0.3
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	1.4	1.2
4-Bromofluorobenzene (surr.)	1	%	82	81	95	92
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	55	5.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	55	5.5
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	55	5.5
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	8.8	1.0
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	5.2	0.6

Client Sample ID			BH5(0.4-0.6.)	BH5(0.8-0.9.)	[G01]BH7(0.3-0.4.)	[G01]BH7(0.4-0.5.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038571	S22-Jn0038572	S22-Jn0038573	S22-Jn0038574
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Anthracene	0.5	mg/kg	< 0.5	< 0.5	22	3.4
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	37	3.7
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	37	3.8
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	22	2.2
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	17	1.9
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	23	2.1
Chrysene	0.5	mg/kg	< 0.5	< 0.5	45	5.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	8.1	0.7
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	110	10
Fluorene	0.5	mg/kg	< 0.5	< 0.5	21	2.6
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	14	1.2
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	90	14
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	180	20
Pyrene	0.5	mg/kg	< 0.5	< 0.5	120	11
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	760	84
2-Fluorobiphenyl (surr.)	1	%	93	100	132	114
p-Terphenyl-d14 (surr.)	1	%	97	103	[Q09]INT	107
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 10	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	90	88	90	91
Tetrachloro-m-xylene (surr.)	1	%	88	89	119	102

Client Sample ID			BH5(0.4-0.6.)	BH5(0.8-0.9.)	G01BH7(0.3-0.4.)	G01BH7(0.4-0.5.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038571	S22-Jn0038572	S22-Jn0038573	S22-Jn0038574
Date Sampled			Jun 08, 2022	Jun 08, 2022	Jun 08, 2022	Jun 08, 2022
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	90	88	90	91
Tetrachloro-m-xylene (surr.)	1	%	88	89	119	102
Heavy Metals						
Arsenic	2	mg/kg	8.1	13	< 2	2.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	24	18	< 5	7.9
Copper	5	mg/kg	32	33	130	49
Lead	5	mg/kg	30	25	36	23
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.1	< 5	5.3	< 5
Zinc	5	mg/kg	22	12	48	33
% Moisture	1	%	18	18	3.0	3.6

Client Sample ID			BH7(0.7-0.8.)	G01BH17(0.4-0.6.)	G01BH17(0.7-0.9.)	BH17(1.2-1.5.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038575	S22-Jn0038576	S22-Jn0038577	S22-Jn0038578
Date Sampled			Jun 08, 2022	Jun 09, 2022	Jun 09, 2022	Jun 09, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 100	< 20
TRH C15-C28	50	mg/kg	< 50	230	590	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 250	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	230	590	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	0.9	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 250	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 250	< 50
TRH >C16-C34	100	mg/kg	< 100	260	700	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 500	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	260	700	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			BH7(0.7-0.8.)	G01 BH17(0.4-0.6.)	G01 BH17(0.7-0.9.)	BH17(1.2-1.5.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038575	S22-Jn0038576	S22-Jn0038577	S22-Jn0038578
Date Sampled			Jun 08, 2022	Jun 09, 2022	Jun 09, 2022	Jun 09, 2022
Test/Reference	LOR	Unit				
BTEX						
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	138	106	118	114
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	7.6	22	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	7.6	22	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	7.6	22	1.2
Acenaphthene	0.5	mg/kg	< 0.5	2.5	3.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	4.0	7.8	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	4.7	14	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	4.9	14	< 0.5
Benzo(b&j)fluoranthene N07	0.5	mg/kg	< 0.5	3.6	11	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	2.4	5.9	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	4.0	11	< 0.5
Chrysene	0.5	mg/kg	< 0.5	6.9	16	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	1.2	3.3	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	15	41	< 0.5
Fluorene	0.5	mg/kg	< 0.5	2.4	3.7	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	1.9	5.2	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	0.5	0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	14	30	0.5
Pyrene	0.5	mg/kg	< 0.5	14	39	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	82	210	0.5
2-Fluorobiphenyl (surr.)	1	%	100	136	115	95
p-Terphenyl-d14 (surr.)	1	%	104	125	113	102
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 10	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.5	< 0.5	< 0.05

Client Sample ID			BH7(0.7-0.8.)	[G01]BH17(0.4-0.6.)	[G01]BH17(0.7-0.9.)	BH17(1.2-1.5.)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0038575**	**S22-Jn0038576**	**S22-Jn0038577**	**S22-Jn0038578**
Date Sampled			**Jun 08, 2022**	**Jun 09, 2022**	**Jun 09, 2022**	**Jun 09, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	85	[Q09]INT	72	83
Tetrachloro-m-xylene (surr.)	1	%	95	107	94	98
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	85	[Q09]INT	72	83
Tetrachloro-m-xylene (surr.)	1	%	95	107	94	98
Heavy Metals						
Arsenic	2	mg/kg	20	< 2	< 2	3.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	47	< 5	< 5	< 5
Copper	5	mg/kg	< 5	< 5	< 5	< 5
Lead	5	mg/kg	32	10	< 5	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	< 5	< 5	< 5	< 5
% Moisture	1	%	20	4.7	2.5	6.6

Client Sample ID			[G01]BH20(0.3-0.4.)	BH20(0.4-0.5.)	BH20(1.4-1.5.)	[G01]BH21(0.3-0.4.)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0038579**	**S22-Jn0038580**	**S22-Jn0038581**	**S22-Jn0038582**
Date Sampled			**Jun 09, 2022**	**Jun 09, 2022**	**Jun 09, 2022**	**Jun 09, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	110	< 50	< 50	690
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	120
TRH C10-C36 (Total)	50	mg/kg	110	< 50	< 50	810
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	140	< 100	< 100	920
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	180
TRH >C10-C40 (total)*	100	mg/kg	140	< 100	< 100	1100

Client Sample ID			G01 BH20(0.3-0.4.)	BH20(0.4-0.5.)	BH20(1.4-1.5.)	G01 BH21(0.3-0.4.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038579	S22-Jn0038580	S22-Jn0038581	S22-Jn0038582
Date Sampled			Jun 09, 2022	Jun 09, 2022	Jun 09, 2022	Jun 09, 2022
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	78	90	84	86
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	3.0	< 0.5	< 0.5	13
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	3.0	0.6	0.6	13
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	3.0	1.2	1.2	13
Acenaphthene	0.5	mg/kg	0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	1.4	< 0.5	< 0.5	2.1
Benz(a)anthracene	0.5	mg/kg	2.0	< 0.5	< 0.5	6.6
Benzo(a)pyrene	0.5	mg/kg	1.9	< 0.5	< 0.5	8.8
Benzo(b&j)fluoranthene N07	0.5	mg/kg	1.5	< 0.5	< 0.5	6.3
Benzo(g.h.i)perylene	0.5	mg/kg	0.9	< 0.5	< 0.5	5.1
Benzo(k)fluoranthene	0.5	mg/kg	1.5	< 0.5	< 0.5	5.8
Chrysene	0.5	mg/kg	2.8	< 0.5	< 0.5	9.2
Dibenz(a.h)anthracene	0.5	mg/kg	0.5	< 0.5	< 0.5	2.1
Fluoranthene	0.5	mg/kg	5.6	< 0.5	0.5	17
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	0.5	< 0.5	< 0.5	3.9
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	4.6	< 0.5	< 0.5	7.6
Pyrene	0.5	mg/kg	5.5	< 0.5	0.5	19
Total PAH*	0.5	mg/kg	29	< 0.5	1.0	94
2-Fluorobiphenyl (surr.)	1	%	123	98	99	118
p-Terphenyl-d14 (surr.)	1	%	128	106	122	131
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5

Client Sample ID			G01 BH20(0.3-0.4.)	BH20(0.4-0.5.)	BH20(1.4-1.5.)	G01 BH21(0.3-0.4.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038579	S22-Jn0038580	S22-Jn0038581	S22-Jn0038582
Date Sampled			Jun 09, 2022	Jun 09, 2022	Jun 09, 2022	Jun 09, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	102	81	86	80
Tetrachloro-m-xylene (surr.)	1	%	105	91	95	117
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	102	81	86	80
Tetrachloro-m-xylene (surr.)	1	%	105	91	95	117
Heavy Metals						
Arsenic	2	mg/kg	2.1	< 2	2.0	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	8.2	< 5	68	9.3
Copper	5	mg/kg	22	< 5	21	19
Lead	5	mg/kg	93	45	8.3	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	20	< 5
Zinc	5	mg/kg	39	6.7	< 5	26
% Moisture	1	%	4.4	2.1	4.2	4.4

Client Sample ID			G01 BH21(0.4-0.6)	BH21(1.6-1.8.)	G01 BH13(0.1-0.3.)	G01 BH13(0.5-0.6.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038583	S22-Jn0038584	S22-Jn0038585	S22-Jn0038586
Date Sampled			Jun 09, 2022	Jun 09, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 1000	< 1000
TRH C15-C28	50	mg/kg	420	< 50	< 2500	< 2500
TRH C29-C36	50	mg/kg	62	< 50	< 2500	< 2500
TRH C10-C36 (Total)	50	mg/kg	482	< 50	< 2500	< 2500
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 2500	< 2500

Client Sample ID			G01 BH21(0.4-0.6)	BH21(1.6-1.8.)	G01 BH13(0.1-0.3.)	G01 BH13(0.5-0.6.)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038583	S22-Jn0038584	S22-Jn0038585	S22-Jn0038586
Date Sampled			Jun 09, 2022	Jun 09, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 2500	< 2500
TRH >C16-C34	100	mg/kg	560	< 100	< 5000	< 5000
TRH >C34-C40	100	mg/kg	130	< 100	< 5000	< 5000
TRH >C10-C40 (total)*	100	mg/kg	690	< 100	< 5000	< 5000
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	80	81	78	137
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	8.0	< 0.5	< 5	< 50
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	8.0	0.6	< 5	< 50
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	8.0	1.2	< 5	63
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	1.1	< 0.5	< 5	< 10
Benz(a)anthracene	0.5	mg/kg	3.9	< 0.5	< 2	< 20
Benzo(a)pyrene	0.5	mg/kg	5.3	< 0.5	< 2	< 50
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	3.7	< 0.5	< 2	< 20
Benzo(g.h.i)perylene	0.5	mg/kg	3.6	< 0.5	< 2	< 20
Benzo(k)fluoranthene	0.5	mg/kg	3.8	< 0.5	< 5	< 20
Chrysene	0.5	mg/kg	5.9	< 0.5	< 5	< 20
Dibenz(a.h)anthracene	0.5	mg/kg	1.2	< 0.5	< 0.5	< 5
Fluoranthene	0.5	mg/kg	9.4	< 0.5	< 5	< 50
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	2.3	< 0.5	< 2	< 20
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	4.4	< 0.5	< 2	< 20
Pyrene	0.5	mg/kg	12	< 0.5	< 5	< 50
Total PAH*	0.5	mg/kg	57	< 0.5	< 5	< 50
2-Fluorobiphenyl (surr.)	1	%	117	106	145	127
p-Terphenyl-d14 (surr.)	1	%	136	115	120	135
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 1	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5

Client Sample ID			G01 BH21(0.4-0.6)	BH21(1.6-1.8.)	G01 BH13(0.1-0.3.)	G01 BH13(0.5-0.6.)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0038583**	**S22-Jn0038584**	**S22-Jn0038585**	**S22-Jn0038586**
Date Sampled			**Jun 09, 2022**	**Jun 09, 2022**	**Jun 10, 2022**	**Jun 10, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 10	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.5	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	130	84	Q09 INT	136
Tetrachloro-m-xylene (surr.)	1	%	110	91	114	111
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	130	84	Q09 INT	136
Tetrachloro-m-xylene (surr.)	1	%	110	91	114	111
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.7	< 2	2.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	5.4	6.0	19	39
Copper	5	mg/kg	6.1	< 5	100	54
Lead	5	mg/kg	13	< 5	11	12
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	< 5	27	38
Zinc	5	mg/kg	15	< 5	51	42
% Moisture	1	%	3.0	5.2	1.8	3.3

Client Sample ID			BH13(1.5-1.7.)	BH13 0.5	BH13 1.0	BH13 1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038587	S22-Jn0038588	S22-Jn0038589	S22-Jn0038590
Date Sampled			Jun 10, 2022	Jun 10, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	-	-	-
TRH C10-C14	20	mg/kg	< 20	-	-	-
TRH C15-C28	50	mg/kg	< 50	-	-	-
TRH C29-C36	50	mg/kg	< 50	-	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	-	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-	-
TRH C6-C10	20	mg/kg	< 20	-	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	-	-
TRH >C10-C16	50	mg/kg	< 50	-	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	-	-	-
4-Bromofluorobenzene (surr.)	1	%	90	-	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-	-
Acenaphthene	0.5	mg/kg	< 0.5	-	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-	-
Pyrene	0.5	mg/kg	< 1	-	-	-
Total PAH*	0.5	mg/kg	< 1	-	-	-
2-Fluorobiphenyl (surr.)	1	%	119	-	-	-
p-Terphenyl-d14 (surr.)	1	%	123	-	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-	-

Client Sample ID			BH13(1.5-1.7.)	BH13 0.5	BH13 1.0	BH13 1.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038587	S22-Jn0038588	S22-Jn0038589	S22-Jn0038590
Date Sampled			Jun 10, 2022	Jun 10, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	-	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-	-
b-HCH	0.05	mg/kg	< 0.05	-	-	-
d-HCH	0.05	mg/kg	< 0.05	-	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-	-
Endrin	0.05	mg/kg	< 0.05	-	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-	-
Methoxychlor	0.05	mg/kg	< 0.05	-	-	-
Toxaphene	0.5	mg/kg	< 0.5	-	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	130	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	80	-	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	-	-
Aroclor-1260	0.1	mg/kg	< 0.1	-	-	-
Total PCB*	0.1	mg/kg	< 0.1	-	-	-
Dibutylchlorendate (surr.)	1	%	130	-	-	-
Tetrachloro-m-xylene (surr.)	1	%	80	-	-	-
Heavy Metals						
Arsenic	2	mg/kg	< 2	-	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-	-
Chromium	5	mg/kg	< 5	-	-	-
Copper	5	mg/kg	< 5	-	-	-
Lead	5	mg/kg	< 5	-	-	-
Mercury	0.1	mg/kg	< 0.1	-	-	-
Nickel	5	mg/kg	< 5	-	-	-
Zinc	5	mg/kg	< 5	-	-	-
% Moisture	1	%	3.2	-	-	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	5.0	8.6	7.1
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	7.5	7.3	6.6
Reaction Ratings*[S05]	0	-	-	3.0	3.0	2.0

Client Sample ID			BH13 2.0	BH13 2.5	BH13 3.0	BH13 3.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038591	S22-Jn0038592	S22-Jn0038593	S22-Jn0038594
Date Sampled			Jun 10, 2022	Jun 10, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.6	6.6	6.3	5.9
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.7	5.7	5.4	5.4
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			BH13 4.0	BH13 4.5	BH13 5.0	BH13 6.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038595	S22-Jn0038596	S22-Jn0038597	S22-Jn0038598
Date Sampled			Jun 10, 2022	Jun 10, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.1	5.4	5.9	6.8
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.3	4.7	5.6	5.5
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			BH13 7.0	BH13 8.0	BH13 9.0	BH13 10.0
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0038599	S22-Jn0038600	S22-Jn0038601	S22-Jn0038602
Date Sampled			Jun 10, 2022	Jun 10, 2022	Jun 10, 2022	Jun 10, 2022
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	5.7	5.1	5.7	6.0
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.2	4.7	4.8	5.1
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jun 18, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 18, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 18, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jun 18, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 18, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Jun 18, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Jun 18, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Jun 18, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jun 17, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Acid Sulfate Soils Field pH Test	Sydney	Jun 18, 2022	7 Days
- Method: LTM-GEN-7060 Determination of field pH (pHF) and field pH peroxide (pHFOX) tests			

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
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NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 898325
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 16, 2022 7:17 PM
Due: Jun 21, 2022
Priority: 3 Day
Contact Name: Aaron Hong

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH6(0.1-0.2.)	Jun 08, 2022		Soil	S22-Jn0038563			X	X
2	BH6(0.4-0.6.)	Jun 08, 2022		Soil	S22-Jn0038564			X	X
3	BH7(0.1-0.2.)	Jun 08, 2022		Soil	S22-Jn0038565			X	X
4	BH7(0.4-0.6.)	Jun 08, 2022		Soil	S22-Jn0038566			X	X
5	BH8(0.2-0.3.)	Jun 08, 2022		Soil	S22-Jn0038567			X	X
6	BH8(0.3-0.4.)	Jun 08, 2022		Soil	S22-			X	X

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038568				
7	BH8(0.8-0.9.)	Jun 08, 2022		Soil	S22-Jn0038569			X	X
8	BH5(0.3-0.4.)	Jun 08, 2022		Soil	S22-Jn0038570			X	X
9	BH5(0.4-0.6.)	Jun 08, 2022		Soil	S22-Jn0038571			X	X
10	BH5(0.8-0.9.)	Jun 08, 2022		Soil	S22-Jn0038572			X	X
11	BH7(0.3-0.4.)	Jun 08, 2022		Soil	S22-Jn0038573			X	X
12	BH7(0.4-0.5.)	Jun 08, 2022		Soil	S22-Jn0038574			X	X

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
13	BH7(0.7-0.8.)	Jun 08, 2022		Soil	S22-Jn0038575			X	X
14	BH17(0.4-0.6.)	Jun 09, 2022		Soil	S22-Jn0038576			X	X
15	BH17(0.7-0.9.)	Jun 09, 2022		Soil	S22-Jn0038577			X	X
16	BH17(1.2-1.5.)	Jun 09, 2022		Soil	S22-Jn0038578			X	X
17	BH20(0.3-0.4.)	Jun 09, 2022		Soil	S22-Jn0038579			X	X
18	BH20(0.4-0.5.)	Jun 09, 2022		Soil	S22-Jn0038580			X	X
19	BH20(1.4-1.5.)	Jun 09, 2022		Soil	S22-			X	X

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jun 16, 2022 7:17 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	898325	**Due:**	Jun 21, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Aaron Hong
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038581				
20	BH21(0.3-0.4.)	Jun 09, 2022		Soil	S22-Jn0038582			X	X
21	BH21(0.4-0.6)	Jun 09, 2022		Soil	S22-Jn0038583			X	X
22	BH21(1.6-1.8.)	Jun 09, 2022		Soil	S22-Jn0038584			X	X
23	BH13(0.1-0.3.)	Jun 10, 2022		Soil	S22-Jn0038585			X	X
24	BH13(0.5-0.6.)	Jun 10, 2022		Soil	S22-Jn0038586			X	X
25	BH13(1.5-1.7.)	Jun 10, 2022		Soil	S22-Jn0038587			X	X

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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
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NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 898325
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 16, 2022 7:17 PM
Due: Jun 21, 2022
Priority: 3 Day
Contact Name: Aaron Hong

Eurofins Analytical Services Manager : Andrew Black

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
26	BH13 0.5	Jun 10, 2022		Soil	S22-Jn0038588		X		
27	BH13 1.0	Jun 10, 2022		Soil	S22-Jn0038589		X		
28	BH13 1.5	Jun 10, 2022		Soil	S22-Jn0038590		X		
29	BH13 2.0	Jun 10, 2022		Soil	S22-Jn0038591		X		
30	BH13 2.5	Jun 10, 2022		Soil	S22-Jn0038592		X		
31	BH13 3.0	Jun 10, 2022		Soil	S22-Jn0038593		X		
32	BH13 3.5	Jun 10, 2022		Soil	S22-		X		

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038594				
33	BH13 4.0	Jun 10, 2022		Soil	S22-Jn0038595		X		
34	BH13 4.5	Jun 10, 2022		Soil	S22-Jn0038596		X		
35	BH13 5.0	Jun 10, 2022		Soil	S22-Jn0038597		X		
36	BH13 6.0	Jun 10, 2022		Soil	S22-Jn0038598		X		
37	BH13 7.0	Jun 10, 2022		Soil	S22-Jn0038599		X		
38	BH13 8.0	Jun 10, 2022		Soil	S22-Jn0038600		X		

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
39	BH13 9.0	Jun 10, 2022		Soil	S22-Jn0038601		X		
40	BH13 10.0	Jun 10, 2022		Soil	S22-Jn0038602		X		
41	BH6(0.7-0.9.)	Jun 08, 2022		Soil	S22-Jn0038603	X			
42	BH7(1.2-1.4.)	Jun 08, 2022		Soil	S22-Jn0038604	X			
43	BH13 5.5	Jun 10, 2022		Soil	S22-Jn0038605	X			
44	BH13 6.5	Jun 10, 2022		Soil	S22-Jn0038606	X			
45	BH13 7.5	Jun 10, 2022		Soil	S22-	X			

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038607				
46	BH13 8.5	Jun 10, 2022		Soil	S22-Jn0038608	X			
47	BH13 9.5	Jun 10, 2022		Soil	S22-Jn0038609	X			
Test Counts						7	15	25	25

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Total PAH*	mg/kg	-			0.5	N/A	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	96			70-130	Pass	
TRH C10-C14	%	97			70-130	Pass	
Naphthalene	%	76			70-130	Pass	
TRH C6-C10	%	90			70-130	Pass	
TRH >C10-C16	%	99			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	98			70-130	Pass	
Toluene	%	95			70-130	Pass	
Ethylbenzene	%	96			70-130	Pass	
m&p-Xylenes	%	103			70-130	Pass	
o-Xylene	%	96			70-130	Pass	
Xylenes - Total*	%	100			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	
Acenaphthylene	%	72			70-130	Pass	
Anthracene	%	125			70-130	Pass	
Benz(a)anthracene	%	89			70-130	Pass	
Benzo(a)pyrene	%	104			70-130	Pass	
Benzo(b&j)fluoranthene	%	89			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	94			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene			%	100			70-130	Pass	
Dibenz(a.h)anthracene			%	110			70-130	Pass	
Fluoranthene			%	93			70-130	Pass	
Fluorene			%	93			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	99			70-130	Pass	
Naphthalene			%	93			70-130	Pass	
Phenanthrene			%	107			70-130	Pass	
Pyrene			%	100			70-130	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	99			70-130	Pass	
4.4'-DDD			%	90			70-130	Pass	
4.4'-DDE			%	73			70-130	Pass	
4.4'-DDT			%	93			70-130	Pass	
a-HCH			%	74			70-130	Pass	
Aldrin			%	93			70-130	Pass	
b-HCH			%	79			70-130	Pass	
d-HCH			%	75			70-130	Pass	
Dieldrin			%	84			70-130	Pass	
Endosulfan I			%	123			70-130	Pass	
Endosulfan II			%	71			70-130	Pass	
Endosulfan sulphate			%	71			70-130	Pass	
Endrin			%	78			70-130	Pass	
Endrin aldehyde			%	101			70-130	Pass	
Endrin ketone			%	86			70-130	Pass	
g-HCH (Lindane)			%	94			70-130	Pass	
Heptachlor			%	80			70-130	Pass	
Heptachlor epoxide			%	102			70-130	Pass	
Hexachlorobenzene			%	76			70-130	Pass	
Methoxychlor			%	91			70-130	Pass	
LCS - % Recovery									
Polychlorinated Biphenyls									
Aroclor-1016			%	83			70-130	Pass	
Aroclor-1260			%	86			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	96			80-120	Pass	
Cadmium			%	94			80-120	Pass	
Chromium			%	93			80-120	Pass	
Copper			%	93			80-120	Pass	
Lead			%	90			80-120	Pass	
Mercury			%	88			80-120	Pass	
Nickel			%	90			80-120	Pass	
Zinc			%	92			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S22-Jn0037062	NCP	%	101			70-130	Pass	
TRH >C10-C16	S22-Jn0037062	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Jn0037059	NCP	%	93			75-125	Pass	
Cadmium	S22-Jn0037059	NCP	%	95			75-125	Pass	
Chromium	S22-Jn0037059	NCP	%	102			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Copper	S22-Jn0037059	NCP	%	119			75-125	Pass	
Lead	S22-Jn0037059	NCP	%	102			75-125	Pass	
Mercury	S22-Jn0037059	NCP	%	104			75-125	Pass	
Nickel	S22-Jn0037059	NCP	%	103			75-125	Pass	
Zinc	N22-Jn0036240	NCP	%	84			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Jn0038570	CP	%	79			70-130	Pass	
Naphthalene	S22-Jn0038570	CP	%	115			70-130	Pass	
TRH C6-C10	S22-Jn0038570	CP	%	74			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Jn0038570	CP	%	89			70-130	Pass	
Toluene	S22-Jn0038570	CP	%	83			70-130	Pass	
Ethylbenzene	S22-Jn0038570	CP	%	84			70-130	Pass	
m&p-Xylenes	S22-Jn0038570	CP	%	89			70-130	Pass	
o-Xylene	S22-Jn0038570	CP	%	89			70-130	Pass	
Xylenes - Total*	S22-Jn0038570	CP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Jn0038580	CP	%	75			70-130	Pass	
Naphthalene	S22-Jn0038580	CP	%	100			70-130	Pass	
TRH C6-C10	S22-Jn0038580	CP	%	71			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Jn0038580	CP	%	95			70-130	Pass	
Toluene	S22-Jn0038580	CP	%	82			70-130	Pass	
Ethylbenzene	S22-Jn0038580	CP	%	82			70-130	Pass	
m&p-Xylenes	S22-Jn0038580	CP	%	86			70-130	Pass	
o-Xylene	S22-Jn0038580	CP	%	86			70-130	Pass	
Xylenes - Total*	S22-Jn0038580	CP	%	86			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Jn0019991	NCP	%	92			70-130	Pass	
Acenaphthylene	S22-Jn0019991	NCP	%	81			70-130	Pass	
Anthracene	S22-Jn0019991	NCP	%	100			70-130	Pass	
Benz(a)anthracene	S22-Jn0031491	NCP	%	86			70-130	Pass	
Benzo(a)pyrene	S22-Jn0019991	NCP	%	92			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Jn0019991	NCP	%	77			70-130	Pass	
Benzo(g.h.i)perylene	S22-Jn0019991	NCP	%	74			70-130	Pass	
Benzo(k)fluoranthene	S22-Jn0019991	NCP	%	104			70-130	Pass	
Chrysene	S22-Jn0019991	NCP	%	102			70-130	Pass	
Dibenz(a.h)anthracene	S22-Jn0019991	NCP	%	77			70-130	Pass	
Fluoranthene	S22-Jn0019991	NCP	%	78			70-130	Pass	
Fluorene	S22-Jn0019991	NCP	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jn0019991	NCP	%	79			70-130	Pass	
Naphthalene	S22-Jn0019991	NCP	%	88			70-130	Pass	
Phenanthrene	S22-Jn0019991	NCP	%	70			70-130	Pass	
Pyrene	S22-Jn0019991	NCP	%	85			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Jn0035973	NCP	%	129			70-130	Pass	
4.4'-DDD	S22-Jn0035973	NCP	%	108			70-130	Pass	
4.4'-DDE	S22-Jn0035973	NCP	%	126			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDT	S22-Jn0035973	NCP	%	112			70-130	Pass	
a-HCH	S22-Jn0035973	NCP	%	95			70-130	Pass	
Aldrin	S22-Jn0035973	NCP	%	111			70-130	Pass	
b-HCH	S22-Jn0035973	NCP	%	79			70-130	Pass	
d-HCH	S22-Jn0035973	NCP	%	96			70-130	Pass	
Dieldrin	S22-Jn0035973	NCP	%	124			70-130	Pass	
Endosulfan I	S22-Jn0035973	NCP	%	114			70-130	Pass	
Endosulfan II	S22-Jn0035973	NCP	%	121			70-130	Pass	
Endosulfan sulphate	S22-Jn0035973	NCP	%	120			70-130	Pass	
Endrin	S22-Jn0035973	NCP	%	94			70-130	Pass	
Endrin aldehyde	S22-Jn0031491	NCP	%	99			70-130	Pass	
Endrin ketone	S22-Jn0035962	NCP	%	106			70-130	Pass	
g-HCH (Lindane)	S22-Jn0035973	NCP	%	94			70-130	Pass	
Heptachlor	S22-Jn0035973	NCP	%	91			70-130	Pass	
Heptachlor epoxide	S22-Jn0035973	NCP	%	112			70-130	Pass	
Hexachlorobenzene	S22-Jn0035973	NCP	%	116			70-130	Pass	
Methoxychlor	S22-Jn0035973	NCP	%	111			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S22-Jn0035962	NCP	%	71			70-130	Pass	
Aroclor-1260	S22-Jn0035973	NCP	%	78			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0038564	CP	%	19	18	5.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0038565	CP	mg/kg	4.9	3.1	47	30%	Fail	Q15
Cadmium	S22-Jn0038565	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0038565	CP	mg/kg	17	13	28	30%	Pass	
Copper	S22-Jn0038565	CP	mg/kg	45	33	32	30%	Fail	Q15
Lead	S22-Jn0038565	CP	mg/kg	44	26	51	30%	Fail	Q15
Mercury	S22-Jn0038565	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0038565	CP	mg/kg	12	7.3	46	30%	Fail	Q15
Zinc	S22-Jn0038565	CP	mg/kg	100	76	30	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Jn0038569	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Jn0038569	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Jn0038569	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Jn0038569	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Jn0038569	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Jn0038569	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Jn0038569	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Jn0038569	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Jn0038569	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Jn0038569	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Jn0038569	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Jn0038569	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Jn0038569	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0038574	CP	%	3.6	3.4	5.0	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0038575	CP	mg/kg	20	14	35	30%	Fail	Q15
Cadmium	S22-Jn0038575	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0038575	CP	mg/kg	47	34	32	30%	Fail	Q15
Copper	S22-Jn0038575	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-Jn0038575	CP	mg/kg	32	35	11	30%	Pass	
Mercury	S22-Jn0038575	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0038575	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Jn0038575	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0038576	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-Jn0038576	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0038576	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S22-Jn0038576	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-Jn0038576	CP	mg/kg	10	11	5.0	30%	Pass	
Mercury	S22-Jn0038576	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0038576	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Jn0038576	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0038584	CP	%	5.2	4.9	6.0	30%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jn0038597	CP	pH Units	5.9	6.0	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jn0038597	CP	pH Units	5.6	5.6	pass	0%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jn0038598	CP	pH Units	6.8	6.8	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jn0038598	CP	pH Units	5.5	5.5	pass	0%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
S05	Field Screen uses the following fizz rating to classify the rate the samples reacted to the peroxide: 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reaction.

Authorised by:

Andrew Black	Analytical Services Manager
Sayeed Abu	Senior Analyst-Asbestos
Roopesh Rangarajan	Senior Analyst-Organic
Gabriele Cordero	Senior Analyst-Metal
Gabriele Cordero	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Volatile

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention:	Aaron Hong
Report	898325-AID
Project Name	AUSGRID CABLE PROJECT
Project ID	14777
Received Date	Jun 16, 2022
Date Reported	Jun 22, 2022

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name AUSGRID CABLE PROJECT
Project ID 14777
Date Sampled Jun 08, 2022 to Jun 10, 2022
Report 898325-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH6(0.1-0.2.)	22-Jn0038563	Jun 08, 2022	Approximate Sample 284g Sample consisted of: White coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH6(0.4-0.6.)	22-Jn0038564	Jun 08, 2022	Approximate Sample 297g Sample consisted of: White fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7(0.1-0.2.)	22-Jn0038565	Jun 08, 2022	Approximate Sample 248g Sample consisted of: White coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7(0.4-0.6.)	22-Jn0038566	Jun 08, 2022	Approximate Sample 338g Sample consisted of: White fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH8(0.2-0.3.)	22-Jn0038567	Jun 08, 2022	Approximate Sample 273g Sample consisted of: Grey fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH8(0.3-0.4.)	22-Jn0038568	Jun 08, 2022	Approximate Sample 234g Sample consisted of: Grey fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH8(0.8-0.9.)	22-Jn0038569	Jun 08, 2022	Approximate Sample 321g Sample consisted of: Grey fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH5(0.3-0.4.)	22-Jn0038570	Jun 08, 2022	Approximate Sample 181g Sample consisted of: Grey fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH5(0.4-0.6.)	22-Jn0038571	Jun 08, 2022	Approximate Sample 179g Sample consisted of: Grey fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH5(0.8-0.9.)	22-Jn0038572	Jun 08, 2022	Approximate Sample 345g Sample consisted of: Grey fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7(0.3-0.4.)	22-Jn0038573	Jun 08, 2022	Approximate Sample 219g Sample consisted of: Grey coarse-grained soil, coal and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7(0.4-0.5.)	22-Jn0038574	Jun 08, 2022	Approximate Sample 149g Sample consisted of: Grey coarse-grained soil, coal and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH7(0.7-0.8.)	22-Jn0038575	Jun 08, 2022	Approximate Sample 383g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH17(0.4-0.6.)	22-Jn0038576	Jun 09, 2022	Approximate Sample 322g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH17(0.7-0.9.)	22-Jn0038577	Jun 09, 2022	Approximate Sample 265g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH17(1.2-1.5.)	22-Jn0038578	Jun 09, 2022	Approximate Sample 339g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH20(0.3-0.4.)	22-Jn0038579	Jun 09, 2022	Approximate Sample 160g Sample consisted of: Grey coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH20(0.4-0.5.)	22-Jn0038580	Jun 09, 2022	Approximate Sample 243g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH20(1.4-1.5.)	22-Jn0038581	Jun 09, 2022	Approximate Sample 126g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH21(0.3-0.4.)	22-Jn0038582	Jun 09, 2022	Approximate Sample 337g Sample consisted of: Grey coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH21(0.4-0.6)	22-Jn0038583	Jun 09, 2022	Approximate Sample 322g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
BH21(1.6-1.8.)	22-Jn0038584	Jun 09, 2022	Approximate Sample 279g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH13(0.1-0.3.)	22-Jn0038585	Jun 10, 2022	Approximate Sample 323g Sample consisted of: Grey coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH13(0.5-0.6.)	22-Jn0038586	Jun 10, 2022	Approximate Sample 225g Sample consisted of: Grey coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
BH13(1.5-1.7.)	22-Jn0038587	Jun 10, 2022	Approximate Sample 411g Sample consisted of: Grey coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jun 17, 2022	Indefinite

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Fax: 02 9675 1888

Received: Jun 16, 2022 7:17 PM
Due: Jun 21, 2022
Priority: 3 Day
Contact Name: Aaron Hong

Eurofins Analytical Services Manager : Andrew Black

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	BH6(0.1-0.2.)	Jun 08, 2022		Soil	S22-Jn0038563			X	X
2	BH6(0.4-0.6.)	Jun 08, 2022		Soil	S22-Jn0038564			X	X
3	BH7(0.1-0.2.)	Jun 08, 2022		Soil	S22-Jn0038565			X	X
4	BH7(0.4-0.6.)	Jun 08, 2022		Soil	S22-Jn0038566			X	X
5	BH8(0.2-0.3.)	Jun 08, 2022		Soil	S22-Jn0038567			X	X
6	BH8(0.3-0.4.)	Jun 08, 2022		Soil	S22-			X	X

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Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038568				
7	BH8(0.8-0.9.)	Jun 08, 2022		Soil	S22-Jn0038569			X	X
8	BH5(0.3-0.4.)	Jun 08, 2022		Soil	S22-Jn0038570			X	X
9	BH5(0.4-0.6.)	Jun 08, 2022		Soil	S22-Jn0038571			X	X
10	BH5(0.8-0.9.)	Jun 08, 2022		Soil	S22-Jn0038572			X	X
11	BH7(0.3-0.4.)	Jun 08, 2022		Soil	S22-Jn0038573			X	X
12	BH7(0.4-0.5.)	Jun 08, 2022		Soil	S22-Jn0038574			X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
13	BH7(0.7-0.8.)	Jun 08, 2022		Soil	S22-Jn0038575			X	X
14	BH17(0.4-0.6.)	Jun 09, 2022		Soil	S22-Jn0038576			X	X
15	BH17(0.7-0.9.)	Jun 09, 2022		Soil	S22-Jn0038577			X	X
16	BH17(1.2-1.5.)	Jun 09, 2022		Soil	S22-Jn0038578			X	X
17	BH20(0.3-0.4.)	Jun 09, 2022		Soil	S22-Jn0038579			X	X
18	BH20(0.4-0.5.)	Jun 09, 2022		Soil	S22-Jn0038580			X	X
19	BH20(1.4-1.5.)	Jun 09, 2022		Soil	S22-			X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038581				
20	BH21(0.3-0.4.)	Jun 09, 2022		Soil	S22-Jn0038582			X	X
21	BH21(0.4-0.6)	Jun 09, 2022		Soil	S22-Jn0038583			X	X
22	BH21(1.6-1.8.)	Jun 09, 2022		Soil	S22-Jn0038584			X	X
23	BH13(0.1-0.3.)	Jun 10, 2022		Soil	S22-Jn0038585			X	X
24	BH13(0.5-0.6.)	Jun 10, 2022		Soil	S22-Jn0038586			X	X
25	BH13(1.5-1.7.)	Jun 10, 2022		Soil	S22-Jn0038587			X	X

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Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
26	BH13 0.5	Jun 10, 2022		Soil	S22-Jn0038588		X		
27	BH13 1.0	Jun 10, 2022		Soil	S22-Jn0038589		X		
28	BH13 1.5	Jun 10, 2022		Soil	S22-Jn0038590		X		
29	BH13 2.0	Jun 10, 2022		Soil	S22-Jn0038591		X		
30	BH13 2.5	Jun 10, 2022		Soil	S22-Jn0038592		X		
31	BH13 3.0	Jun 10, 2022		Soil	S22-Jn0038593		X		
32	BH13 3.5	Jun 10, 2022		Soil	S22-		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038594				
33	BH13 4.0	Jun 10, 2022		Soil	S22-Jn0038595		X		
34	BH13 4.5	Jun 10, 2022		Soil	S22-Jn0038596		X		
35	BH13 5.0	Jun 10, 2022		Soil	S22-Jn0038597		X		
36	BH13 6.0	Jun 10, 2022		Soil	S22-Jn0038598		X		
37	BH13 7.0	Jun 10, 2022		Soil	S22-Jn0038599		X		
38	BH13 8.0	Jun 10, 2022		Soil	S22-Jn0038600		X		

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NATA # 1261 Site # 18217

Brisbane
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IANZ # 1327

Christchurch
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Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 898325
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 16, 2022 7:17 PM
Due: Jun 21, 2022
Priority: 3 Day
Contact Name: Aaron Hong

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
39	BH13 9.0	Jun 10, 2022		Soil	S22-Jn0038601		X		
40	BH13 10.0	Jun 10, 2022		Soil	S22-Jn0038602		X		
41	BH6(0.7-0.9.)	Jun 08, 2022		Soil	S22-Jn0038603	X			
42	BH7(1.2-1.4.)	Jun 08, 2022		Soil	S22-Jn0038604	X			
43	BH13 5.5	Jun 10, 2022		Soil	S22-Jn0038605	X			
44	BH13 6.5	Jun 10, 2022		Soil	S22-Jn0038606	X			
45	BH13 7.5	Jun 10, 2022		Soil	S22-	X			

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Melbourne Laboratory - NATA # 1261 Site # 1254									
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
Brisbane Laboratory - NATA # 1261 Site # 20794									
Mayfield Laboratory - NATA # 1261 Site # 25079									
Perth Laboratory - NATA # 2377 Site # 2370									
External Laboratory									
					Jn0038607				
46	BH13 8.5	Jun 10, 2022		Soil	S22-Jn0038608	X			
47	BH13 9.5	Jun 10, 2022		Soil	S22-Jn0038609	X			
Test Counts						7	15	25	25

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Mehran Asadabadi**

Report **899767-L**
Project name ADDITIONAL AUSGRID CABLE PROJECT
Project ID ADDITIONAL 14777
Received Date Jun 22, 2022

Client Sample ID			**BH17 (0.4-0.5)**	**BH17 (0.7-0.9)**	**BH20 (0.3-0.4)**	**BH21 (0.3-0.4)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0050547**	**S22-Jn0050548**	**S22-Jn0050549**	**S22-Jn0050550**
Date Sampled			**Jun 09, 2022**	**Jun 09, 2022**	**Jun 09, 2022**	**Jun 09, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	5.3	5.9	9.0	7.8
pH (off)	0.1	pH Units	5.2	5.2	5.3	5.2
pH (USA HCl addition)	0.1	pH Units	2.0	1.9	2.0	2.0

Client Sample ID			**BH21 (0.4-0.6)**	**BH7 (0.3-0.4)**	**BH7 (0.4-0.5)**	**BH6 (0.4-0.6)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0050551**	**S22-Jn0050552**	**S22-Jn0050553**	**S22-Jn0050554**
Date Sampled			**Jun 09, 2022**	**Jun 09, 2022**	**Jun 08, 2022**	**Jun 08, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	7.9	8.6	8.5	6.8
pH (off)	0.1	pH Units	5.2	5.2	5.2	5.3
pH (USA HCl addition)	0.1	pH Units	2.0	2.0	2.0	2.0
Heavy Metals						
Lead	0.01	mg/L	-	-	-	0.03

Client Sample ID			**BH7 (0.1-0.2)**	**BH8 (0.2-0.3)**	**BH8 (0.3-0.4)**	**BH5 (0.3-0.4)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0050555**	**S22-Jn0050556**	**S22-Jn0050557**	**S22-Jn0050558**
Date Sampled			**Jun 08, 2022**	**Jun 08, 2022**	**Jun 08, 2022**	**Jun 08, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			BH7 (0.1-0.2)	BH8 (0.2-0.3)	BH8 (0.3-0.4)	BH5 (0.3-0.4)
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Jn0050555**	**S22-Jn0050556**	**S22-Jn0050557**	**S22-Jn0050558**
Date Sampled			**Jun 08, 2022**	**Jun 08, 2022**	**Jun 08, 2022**	**Jun 08, 2022**
Test/Reference	LOR	Unit				
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	9.0	9.4	8.1	8.4
pH (off)	0.1	pH Units	6.4	7.5	5.6	5.3
pH (USA HCl addition)	0.1	pH Units	2.0	2.0	2.0	2.0

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 22, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
USA Leaching Procedure	Sydney	Jun 22, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Heavy Metals	Sydney	Jun 22, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

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Order No.:
Report #: 899767
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 22, 2022 3:44 PM
Due: Jun 27, 2022
Priority: 3 Day
Contact Name: Mehran Asadabadi

Project Name: ADDITIONAL AUSGRID CABLE PROJECT
Project ID: ADDITIONAL 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure	Chromium Reducible Sulfur Suite	Moisture Set
Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	BH17 (0.4-0.5)	Jun 09, 2022		US Leachate	S22-Jn0050547	X		X		
2	BH17 (0.7-0.9)	Jun 09, 2022		US Leachate	S22-Jn0050548	X		X		
3	BH20 (0.3-0.4)	Jun 09, 2022		US Leachate	S22-Jn0050549	X		X		
4	BH21 (0.3-0.4)	Jun 09, 2022		US Leachate	S22-Jn0050550	X		X		
5	BH21 (0.4-0.6)	Jun 09, 2022		US Leachate	S22-Jn0050551	X		X		
6	BH7 (0.3-0.4)	Jun 09, 2022		US Leachate	S22-	X		X		

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Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
					Jn0050552					
7	BH7 (0.4-0.5)	Jun 08, 2022		US Leachate	S22-Jn0050553	X		X		
8	BH6 (0.4-0.6)	Jun 08, 2022		US Leachate	S22-Jn0050554	X	X	X		
9	BH7 (0.1-0.2)	Jun 08, 2022		US Leachate	S22-Jn0050555	X		X		
10	BH8 (0.2-0.3)	Jun 08, 2022		US Leachate	S22-Jn0050556	X		X		
11	BH8 (0.3-0.4)	Jun 08, 2022		US Leachate	S22-Jn0050557	X		X		
12	BH5 (0.3-0.4)	Jun 08, 2022		US Leachate	S22-Jn0050558	X		X		

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Eurofins Analytical Services Manager : Andrew Black

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Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
13	BH13 0.5	Jun 10, 2022		Soil	S22-Jn0050559				X	X
14	BH13 6.0	Jun 10, 2022		Soil	S22-Jn0050560				X	X
Test Counts						12	1	12	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Lead			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Lead			%	92			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Benzo(a)pyrene	S22-Jn0050548	CP	%	122			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	R22-Jn0031696	NCP	%	104			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S22-Jn0050547	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S22-Jn0048023	NCP	mg/L	0.01	< 0.01	30	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Mehran Asadabadi**

Report **899767-S**
Project name ADDITIONAL AUSGRID CABLE PROJECT
Project ID ADDITIONAL 14777
Received Date Jun 22, 2022

Client Sample ID			**BH13 0.5**	**BH13 6.0**
Sample Matrix			**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0050559**	**S22-Jn0050560**
Date Sampled			**Jun 10, 2022**	**Jun 10, 2022**
Test/Reference	LOR	Unit		
Actual Acidity (NLM-3.2)				
pH-KCL (NLM-3.1)	0.1	pH Units	8.8	6.1
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	< 2	< 2
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	< 0.003	< 0.003
Potential Acidity - Chromium Reducible Sulfur				
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)[S04]	0.005	% S	0.008	< 0.005
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	3	mol H+/t	4.9	< 3
Extractable Sulfur				
Sulfur - KCl Extractable	0.005	% S	N/A	N/A
HCl Extractable Sulfur	0.005	% S	N/A	N/A
Retained Acidity (S-NAS)				
Net Acid soluble sulfur (SNAS) NLM-4.1	0.02	% S	N/A	N/A
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	N/A	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0	2.0
Acid Neutralising Capacity (ANCbt)				
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO3	3.6	N/A
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)[S03]	0.02	% S	1.2	N/A
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	730	N/A
ANC Fineness Factor		factor	1.5	1.5
Net Acidity (Including ANC)				
CRS Suite - Net Acidity - NASSG (Including ANC)	0.02	% S	< 0.02	< 0.02
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	< 10	< 10
CRS Suite - Liming Rate - NASSG (Including ANC)[S01]	1	kg CaCO3/t	< 1	< 1
Extraneous Material				
<2mm Fraction	0.005	g	25	49
>2mm Fraction	0.005	g	13	1.4
Analysed Material	0.1	%	65	97
Extraneous Material	0.1	%	35	2.8
% Moisture	1	%	3.8	1.3

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Chromium Reducible Sulfur Suite			
Chromium Suite	Brisbane	Jun 24, 2022	6 Week
- Method: LTM-GEN-7070 Chromium Reducible Sulfur Suite			
Extraneous Material	Brisbane	Jun 24, 2022	6 Week
- Method: LTM-GEN-7050/7070			
% Moisture	Sydney	Jun 22, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Order No.:
Report #: 899767
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 22, 2022 3:44 PM
Due: Jun 27, 2022
Priority: 3 Day
Contact Name: Mehran Asadabadi

Project Name: ADDITIONAL AUSGRID CABLE PROJECT
Project ID: ADDITIONAL 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure	Chromium Reducible Sulfur Suite	Moisture Set
Melbourne Laboratory - NATA # 1261 Site # 1254										
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	BH17 (0.4-0.5)	Jun 09, 2022		US Leachate	S22-Jn0050547	X		X		
2	BH17 (0.7-0.9)	Jun 09, 2022		US Leachate	S22-Jn0050548	X		X		
3	BH20 (0.3-0.4)	Jun 09, 2022		US Leachate	S22-Jn0050549	X		X		
4	BH21 (0.3-0.4)	Jun 09, 2022		US Leachate	S22-Jn0050550	X		X		
5	BH21 (0.4-0.6)	Jun 09, 2022		US Leachate	S22-Jn0050551	X		X		
6	BH7 (0.3-0.4)	Jun 09, 2022		US Leachate	S22-	X		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
					Jn0050552					
7	BH7 (0.4-0.5)	Jun 08, 2022		US Leachate	S22-Jn0050553	X		X		
8	BH6 (0.4-0.6)	Jun 08, 2022		US Leachate	S22-Jn0050554	X	X	X		
9	BH7 (0.1-0.2)	Jun 08, 2022		US Leachate	S22-Jn0050555	X		X		
10	BH8 (0.2-0.3)	Jun 08, 2022		US Leachate	S22-Jn0050556	X		X		
11	BH8 (0.3-0.4)	Jun 08, 2022		US Leachate	S22-Jn0050557	X		X		
12	BH5 (0.3-0.4)	Jun 08, 2022		US Leachate	S22-Jn0050558	X		X		

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Brisbane Laboratory - NATA # 1261 Site # 20794									X	
Mayfield Laboratory - NATA # 1261 Site # 25079										
Perth Laboratory - NATA # 2377 Site # 2370										
External Laboratory										
13	BH13 0.5	Jun 10, 2022		Soil	S22-Jn0050559				X	X
14	BH13 6.0	Jun 10, 2022		Soil	S22-Jn0050560				X	X
Test Counts						12	1	12	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
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6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
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Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
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5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery									
Actual Acidity (NLM-3.2)									
pH-KCL (NLM-3.1)			%	97			80-120	Pass	
Titratable Actual Acidity (NLM-3.2)			%	94			80-120	Pass	
LCS - % Recovery									
Potential Acidity - Chromium Reducible Sulfur									
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)			%	94			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	S22-Jn0050362	NCP	pH Units	6.0	6.0	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	S22-Jn0050362	NCP	mol H+/t	14	14	2.0	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	S22-Jn0050362	NCP	% pyrite S	0.020	0.020	2.0	30%	Pass	
Duplicate									
Potential Acidity - Chromium Reducible Sulfur				Result 1	Result 2	RPD			
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)	S22-Jn0050362	NCP	% S	< 0.005	< 0.005	<1	20%	Pass	
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	S22-Jn0050362	NCP	mol H+/t	< 3	< 3	<1	30%	Pass	
Duplicate									
Extractable Sulfur				Result 1	Result 2	RPD			
Sulfur - KCl Extractable	S22-Jn0050362	NCP	% S	N/A	N/A	N/A	30%	Pass	
HCl Extractable Sulfur	S22-Jn0050362	NCP	% S	N/A	N/A	N/A	20%	Pass	
Duplicate									
Retained Acidity (S-NAS)				Result 1	Result 2	RPD			
Net Acid soluble sulfur (SNAS) NLM-4.1	S22-Jn0050362	NCP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (s-SNAS) NLM-4.1	S22-Jn0050362	NCP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (a-SNAS) NLM-4.1	S22-Jn0050362	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD			
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	S22-Jn0050362	NCP	% CaCO3	N/A	N/A	N/A	20%	Pass	
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)	S22-Jn0050362	NCP	% S	N/A	N/A	N/A	30%	Pass	
ANC Fineness Factor	S22-Jn0050362	NCP	factor	1.5	1.5	<1	30%	Pass	
Duplicate									
Net Acidity (Including ANC)				Result 1	Result 2	RPD			
CRS Suite - Net Acidity - NASSG (Including ANC)	S22-Jn0050362	NCP	% S	0.02	0.02	2.0	30%	Pass	
CRS Suite - Net Acidity - NASSG (Including ANC)	S22-Jn0050362	NCP	mol H+/t	14	14	2.0	30%	Pass	
CRS Suite - Liming Rate - NASSG (Including ANC)	S22-Jn0050362	NCP	kg CaCO3/t	1.0	1.1	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0056572	NCP	%	22	23	4.0	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
S01	Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO3) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from 'kg/t dry weight' to 'kg/m3 in-situ soil' multiply 'reported results' x 'wet bulk density of soil in t/m3'
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5
S03	Acid Neutralising Capacity is only required if the pHKCl if greater than or equal to pH 6.5
S04	Acid Sulfate Soil Samples have a 24 hour holding time unless frozen or dried within that period

Authorised by:

Andrew Black	Analytical Services Manager
Myles Clark	Senior Analyst-SPOCAS

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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eurofins | Environment Testing

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IANZ # 1327

Christchurch
43 Detroit Drive
Rolleston, Christchurch 7675
Phone : 0800 856 450
IANZ # 1290

Sample Receipt Advice

Company name:	Alliance Geotechnical
Contact name:	Anurag Sobti
Project name:	AUSGRID CABLE PROJECT
Project ID:	14777
Turnaround time:	3 Day
Date/Time received	Jun 29, 2022 7:18 PM
Eurofins reference	901865

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Anurag Sobti - anurag@allgeo.com.au.

Note: A copy of these results will also be delivered to the general Alliance Geotechnical email address.

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066 — 02 9900 8400 — EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 — EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 — EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Containers: 1L Plastic; 250ml Plastic; 125mL Amber Glass; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos As4964, WA Guidelines)

Turnaround Time (TAT) Requirements (Default will be 5 days if not stated)
☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

Analyses: Alliance WAC Suite 2; pH Screening

On Hold

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Alliance WAC Suite 2	pH Screening	Sample Comments / Dangerous Goods Hazard Warning
1	A2KBH01(0.3-0.4m)	23/06/22	S	X		
2	A2KBH01(0.5-0.6m)	23/06/22	S			
3	A2KBH01(0.7-0.9m)	23/06/22	S	X		
4	A2KBH01(0.5m)	23/06/22	S		X	
5	A2KBH01(1.0m)	23/06/22	S		X	
6	A2KBH01(1.5m)	23/06/22	W		X	
7	A2KBH01(2.0m)	23/06/22	W		X	
8	A2KBH01(2.5m)	23/06/22	W		X	
9	A2KBH01(3.0m)	23/06/22	W		X	
10	A2KBH01(3.5m)	23/06/22	W		X	
11	A2KBH10(0.0-0.2m)	24/06/22	S	X		
12	A2KBH10(0.3-0.5m)	24/06/22	S			
13	A2KBH10(0.6-0.8m)	24/06/22	S	X		
14	A2KBH10(0.5m)	24/06/22	S		X	
15	A2KBH10(1.0m)	24/06/22	S		X	
16	A2KBH10(1.5m)	24/06/22	S		X	
17	A2KBH10(2.0m)	24/06/22	S		X	
18	W2SBH12(0.1-0.2m)	23/06/22	S	X		
		Total Counts		5	11	

3 Day TAT at standard rates as per agreement.

Method of Shipment	☐ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Aaron Hong	Signature	Date 29/06/2022 Time

Eurofins | mgt Laboratory Use Only	Received By	Aranu	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	__/__/__	Time	__:__	Temperature
	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	__/__/__	Time	__:__	Report №

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

901865

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

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☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 — EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 — EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Turnaround Time (TAT) Requirements (Default will be 5 days if not ticked)

☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Analyses: Alliance WAC Suite 2	pH Screening	Containers: 1L Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Suite	Jar (Glass or HDPE)	Other (Asbestos AS4964 TM Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	W2SBH12(0.2-0.3m)	23/06/22	S	X	Do not hold									
2	W2SBH12(0.5-0.7m)	23/06/22	S	X										
3	W2SBH12(1.2-1.3m)	23/06/22	S	X										
4	W2SBH2(0.4-0.6m)	23/06/22	S	X										
5	W2SBH2(0.7-0.9m)	23/06/22	S	X										
6	W2SBH2(1.4-1.6m)	23/06/22	S											
7	W2SBH10(0.3-0.4m)	24/06/22	S	X										
8	W2SBH10(0.5-0.6m)	24/06/22	S	X										
9	W2SBH10(0.9-1.2m)	24/06/22	S	X										
10	W2SBH11(0.3-0.4m)	24/06/22	S	X										
11	W2SBH11(0.6-0.8m)	24/06/22	S	X										
12	W2SBH11(1.2-1.5m)	24/06/22	S											
13	W2SBH6(0.4-0.5m)	24/06/22	S	X										
14	W2SBH6(0.6-0.8m)	24/06/22	S	X										
15	W2SBH6(0.8-1.0m)	24/06/22	S											
16	W2SBH5(0.1-0.25m)	24/06/22	S	X										
17	W2SBH5(0.25-0.4m)	24/06/22	S	X										
18	W2SBH5(1.2-1.5m)	24/06/22	S	X										
			Total Counts	12										

3 Day TAT at standard rates as per agreement.

Method of Shipment: ☐ Courier (#) ☐ Hand Delivered ☐ Postal — Name: Aaron Hong — Signature: — Date: 29/06/2022 — Time:

Eurofins | mgt Laboratory Use Only							
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time	Temperature
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time	Report №

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Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

901865

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Anurag Sobti**

Report **901865-S**
Project name AUSGRID CABLE PROJECT
Project ID 14777
Received Date Jun 29, 2022

Client Sample ID			G01 **A2KBH01(0.3_0.4M)**	**A2KBH01(0.7_0.9M)**	**A2KBH01(0.5M)**	**A2KBH01(1M)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067137**	**S22-Jn0067138**	**S22-Jn0067139**	**S22-Jn0067140**
Date Sampled			**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	260	< 50	-	-
TRH C29-C36	50	mg/kg	520	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	780	< 50	-	-
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	610	< 100	-	-
TRH >C34-C40	100	mg/kg	360	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	970	< 100	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	141	52	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene N07	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			G01 A2KBH01(0.3_0.4M)	A2KBH01(0.7_0.9M)	A2KBH01(0.5M)	A2KBH01(1M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0067137	S22-Jn0067138	S22-Jn0067139	S22-Jn0067140
Date Sampled			Jun 23, 2022	Jun 23, 2022	Jun 23, 2022	Jun 23, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	118	71	-	-
p-Terphenyl-d14 (surr.)	1	%	95	77	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	-	-
a-HCH	0.05	mg/kg	< 0.5	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.5	< 0.05	-	-
b-HCH	0.05	mg/kg	< 0.5	< 0.05	-	-
d-HCH	0.05	mg/kg	< 0.5	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.5	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	-	-
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	-	-
Toxaphene	0.5	mg/kg	< 10	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	78	84	-	-
Tetrachloro-m-xylene (surr.)	1	%	95	82	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	-	-
Total PCB*	0.1	mg/kg	< 1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	78	84	-	-
Tetrachloro-m-xylene (surr.)	1	%	95	82	-	-

Client Sample ID			[G01]A2KBH01(0.3_0.4M)	A2KBH01(0.7_0.9M)	A2KBH01(0.5M)	A2KBH01(1M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067137**	**S22-Jn0067138**	**S22-Jn0067139**	**S22-Jn0067140**
Date Sampled			**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	< 2	74	-	-
Cadmium	0.4	mg/kg	< 0.4	6.6	-	-
Chromium	5	mg/kg	6.1	78	-	-
Copper	5	mg/kg	25	82	-	-
Lead	5	mg/kg	5.2	100	-	-
Mercury	0.1	mg/kg	< 0.1	1.7	-	-
Nickel	5	mg/kg	< 5	68	-	-
Zinc	5	mg/kg	13	73	-	-
% Moisture	1	%	9.5	22	-	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	-	6.3	6.0
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	-	4.6	2.8
Reaction Ratings*[S05]	0	-	-	-	3.0	4.0

Client Sample ID			A2KBH01(1.5M)	A2KBH01(2M)	A2KBH01(2.5M)	A2KBH01(3M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067141**	**S22-Jn0067142**	**S22-Jn0067143**	**S22-Jn0067144**
Date Sampled			**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.1	6.0	6.2	6.0
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	2.1	2.4	2.2	1.8
Reaction Ratings*[S05]	0	-	4.0	4.0	4.0	4.0

Client Sample ID			A2KBH01(3.5M)	A2KBH10(0_0.2M)	A2KBH10(0.6_0.8M)	A2KBH10(0.5M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067145**	**S22-Jn0067146**	**S22-Jn0067147**	**S22-Jn0067148**
Date Sampled			**Jun 23, 2022**	**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	< 20	< 20	-
TRH C10-C14	20	mg/kg	-	< 20	< 20	-
TRH C15-C28	50	mg/kg	-	< 50	< 50	-
TRH C29-C36	50	mg/kg	-	< 50	< 50	-
TRH C10-C36 (Total)	50	mg/kg	-	< 50	< 50	-
Naphthalene[N02]	0.5	mg/kg	-	< 0.5	< 0.5	-
TRH C6-C10	20	mg/kg	-	< 20	< 20	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	< 20	< 20	-
TRH >C10-C16	50	mg/kg	-	< 50	< 50	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	< 50	< 50	-
TRH >C16-C34	100	mg/kg	-	< 100	< 100	-
TRH >C34-C40	100	mg/kg	-	< 100	< 100	-
TRH >C10-C40 (total)*	100	mg/kg	-	< 100	< 100	-

Client Sample ID			A2KBH01(3.5M)	A2KBH10(0_0.2M)	A2KBH10(0.6_0.8M)	A2KBH10(0.5M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067145**	**S22-Jn0067146**	**S22-Jn0067147**	**S22-Jn0067148**
Date Sampled			**Jun 23, 2022**	**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	-
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	-
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	-
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	-
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	-
Xylenes - Total*	0.3	mg/kg	-	< 0.3	< 0.3	-
4-Bromofluorobenzene (surr.)	1	%	-	136	96	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	0.6	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	1.2	1.2	-
Acenaphthene	0.5	mg/kg	-	< 0.5	< 0.5	-
Acenaphthylene	0.5	mg/kg	-	< 0.5	< 0.5	-
Anthracene	0.5	mg/kg	-	< 0.5	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	-	< 0.5	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	-
Chrysene	0.5	mg/kg	-	< 0.5	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	-	< 0.5	< 0.5	-
Fluoranthene	0.5	mg/kg	-	< 0.5	< 0.5	-
Fluorene	0.5	mg/kg	-	< 0.5	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Naphthalene	0.5	mg/kg	-	< 0.5	< 0.5	-
Phenanthrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Pyrene	0.5	mg/kg	-	< 0.5	< 0.5	-
Total PAH*	0.5	mg/kg	-	< 0.5	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	-	92	82	-
p-Terphenyl-d14 (surr.)	1	%	-	88	76	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	< 0.1	< 0.1	-
4.4'-DDD	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDE	0.05	mg/kg	-	< 0.05	< 0.05	-
4.4'-DDT	0.05	mg/kg	-	< 0.05	< 0.05	-
a-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Aldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
b-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
d-HCH	0.05	mg/kg	-	< 0.05	< 0.05	-
Dieldrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan I	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan II	0.05	mg/kg	-	< 0.05	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin aldehyde	0.05	mg/kg	-	< 0.05	< 0.05	-
Endrin ketone	0.05	mg/kg	-	< 0.05	< 0.05	-
g-HCH (Lindane)	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	-	< 0.05	< 0.05	-

Client Sample ID			A2KBH01(3.5M)	A2KBH10(0_0.2M)	A2KBH10(0.6_0.8M)	A2KBH10(0.5M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067145**	**S22-Jn0067146**	**S22-Jn0067147**	**S22-Jn0067148**
Date Sampled			**Jun 23, 2022**	**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	-	< 0.05	< 0.05	-
Methoxychlor	0.05	mg/kg	-	< 0.05	< 0.05	-
Toxaphene	0.5	mg/kg	-	< 0.5	< 0.5	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	< 0.05	< 0.05	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	101	83	-
Tetrachloro-m-xylene (surr.)	1	%	-	94	82	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1221	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1232	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1242	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1248	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1254	0.1	mg/kg	-	< 0.1	< 0.1	-
Aroclor-1260	0.1	mg/kg	-	< 0.1	< 0.1	-
Total PCB*	0.1	mg/kg	-	< 0.1	< 0.1	-
Dibutylchlorendate (surr.)	1	%	-	101	83	-
Tetrachloro-m-xylene (surr.)	1	%	-	94	82	-
Heavy Metals						
Arsenic	2	mg/kg	-	11	< 2	-
Cadmium	0.4	mg/kg	-	< 0.4	< 0.4	-
Chromium	5	mg/kg	-	9.1	< 5	-
Copper	5	mg/kg	-	12	< 5	-
Lead	5	mg/kg	-	54	6.0	-
Mercury	0.1	mg/kg	-	< 0.1	< 0.1	-
Nickel	5	mg/kg	-	< 5	< 5	-
Zinc	5	mg/kg	-	46	8.5	-
% Moisture	1	%	-	6.6	3.7	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.3	-	-	6.7
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	2.3	-	-	4.4
Reaction Ratings*[S05]	0	-	4.0	-	-	2.0

Client Sample ID			A2KBH10(1M)	A2KBH10(1.5M)	A2KBH10(2M)	[G01]W2BH12(0.1_0.2M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067149**	**S22-Jn0067150**	**S22-Jn0067151**	**S22-Jn0067152**
Date Sampled			**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	86
TRH C15-C28	50	mg/kg	-	-	-	2400
TRH C29-C36	50	mg/kg	-	-	-	1800
TRH C10-C36 (Total)	50	mg/kg	-	-	-	4286

Client Sample ID			A2KBH10(1M)	A2KBH10(1.5M)	A2KBH10(2M)	[G01]W2BH12(0.1_0.2M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0067149	S22-Jn0067150	S22-Jn0067151	S22-Jn0067152
Date Sampled			Jun 24, 2022	Jun 24, 2022	Jun 24, 2022	Jun 23, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
Naphthalene[N02]	0.5	mg/kg	-	-	-	0.7
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 250
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 250
TRH >C16-C34	100	mg/kg	-	-	-	3600
TRH >C34-C40	100	mg/kg	-	-	-	970
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	4570
BTEX						
Benzene	0.1	mg/kg	-	-	-	0.2
Toluene	0.1	mg/kg	-	-	-	0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	86
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	-	67
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	-	67
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	-	67
Acenaphthene	0.5	mg/kg	-	-	-	1.3
Acenaphthylene	0.5	mg/kg	-	-	-	1.9
Anthracene	0.5	mg/kg	-	-	-	7.1
Benz(a)anthracene	0.5	mg/kg	-	-	-	34
Benzo(a)pyrene	0.5	mg/kg	-	-	-	47
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	-	29
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	31
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	42
Chrysene	0.5	mg/kg	-	-	-	35
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	6.1
Fluoranthene	0.5	mg/kg	-	-	-	68
Fluorene	0.5	mg/kg	-	-	-	0.6
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	24
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	21
Pyrene	0.5	mg/kg	-	-	-	78
Total PAH*	0.5	mg/kg	-	-	-	430
2-Fluorobiphenyl (surr.)	1	%	-	-	-	98
p-Terphenyl-d14 (surr.)	1	%	-	-	-	100
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.5
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.5
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.5
a-HCH	0.05	mg/kg	-	-	-	< 0.5
Aldrin	0.05	mg/kg	-	-	-	< 0.5
b-HCH	0.05	mg/kg	-	-	-	< 0.5
d-HCH	0.05	mg/kg	-	-	-	< 0.5
Dieldrin	0.05	mg/kg	-	-	-	< 0.5

Client Sample ID			A2KBH10(1M)	A2KBH10(1.5M)	A2KBH10(2M)	[G01]W2BH12(0.1_0.2M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0067149	S22-Jn0067150	S22-Jn0067151	S22-Jn0067152
Date Sampled			Jun 24, 2022	Jun 24, 2022	Jun 24, 2022	Jun 23, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	-	-	-	< 0.5
Endosulfan II	0.05	mg/kg	-	-	-	< 0.5
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.5
Endrin	0.05	mg/kg	-	-	-	< 0.5
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.5
Endrin ketone	0.05	mg/kg	-	-	-	< 0.5
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.5
Heptachlor	0.05	mg/kg	-	-	-	< 0.5
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.5
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.5
Methoxychlor	0.05	mg/kg	-	-	-	< 0.5
Toxaphene	0.5	mg/kg	-	-	-	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 1
Dibutylchlorendate (surr.)	1	%	-	-	-	84
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	90
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	-	< 1
Aroclor-1221	0.1	mg/kg	-	-	-	< 1
Aroclor-1232	0.1	mg/kg	-	-	-	< 1
Aroclor-1242	0.1	mg/kg	-	-	-	< 1
Aroclor-1248	0.1	mg/kg	-	-	-	< 1
Aroclor-1254	0.1	mg/kg	-	-	-	< 1
Aroclor-1260	0.1	mg/kg	-	-	-	< 1
Total PCB*	0.1	mg/kg	-	-	-	< 1
Dibutylchlorendate (surr.)	1	%	-	-	-	84
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	90
Heavy Metals						
Arsenic	2	mg/kg	-	-	-	< 2
Cadmium	0.4	mg/kg	-	-	-	< 0.4
Chromium	5	mg/kg	-	-	-	< 5
Copper	5	mg/kg	-	-	-	120
Lead	5	mg/kg	-	-	-	19
Mercury	0.1	mg/kg	-	-	-	< 0.1
Nickel	5	mg/kg	-	-	-	5.9
Zinc	5	mg/kg	-	-	-	36
% Moisture	1	%	-	-	-	5.2
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	7.0	6.6	6.5	-
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.4	4.9	5.4	-
Reaction Ratings*[S05]	0	-	2.0	2.0	2.0	-

Client Sample ID			G01 W2BH12(0.2_0.3M)	W2BH12(0.5_0.7M)	W2BH12(1.2_1.3M)	W2BH2(0.4_0.6M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067153**	**S22-Jn0067154**	**S22-Jn0067155**	**S22-Jn0067156**
Date Sampled			**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	110	< 50	98	260
TRH C29-C36	50	mg/kg	93	< 50	71	100
TRH C10-C36 (Total)	50	mg/kg	203	< 50	169	360
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	200	< 100	160	320
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	200	< 100	160	320
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	106	108	107	115
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	2.7	< 0.5	2.6	5.9
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	2.9	0.6	2.8	5.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	3.2	1.2	3.1	5.9
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	0.6	2.7
Benz(a)anthracene	0.5	mg/kg	1.3	< 0.5	1.7	5.0
Benzo(a)pyrene	0.5	mg/kg	2.1	< 0.5	2.0	3.9
Benzo(b&j)fluoranthene N07	0.5	mg/kg	1.1	< 0.5	1.1	2.1
Benzo(g.h.i)perylene	0.5	mg/kg	1.0	< 0.5	1.2	2.0
Benzo(k)fluoranthene	0.5	mg/kg	2.0	< 0.5	1.5	4.7
Chrysene	0.5	mg/kg	1.8	< 0.5	1.6	2.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Fluoranthene	0.5	mg/kg	3.2	0.5	3.9	13
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	0.9	< 0.5	1.0	1.9
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	0.8	< 0.5	2.5	13
Pyrene	0.5	mg/kg	3.3	0.6	3.9	10
Total PAH*	0.5	mg/kg	18	1.1	21	63
2-Fluorobiphenyl (surr.)	1	%	111	85	87	87
p-Terphenyl-d14 (surr.)	1	%	93	81	81	84
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05

Client Sample ID			G01 W2BH12(0.2_0.3M)	W2BH12(0.5_0.7M)	W2BH12(1.2_1.3M)	W2BH2(0.4_0.6M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067153**	**S22-Jn0067154**	**S22-Jn0067155**	**S22-Jn0067156**
Date Sampled			**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	90	90	81	79
Tetrachloro-m-xylene (surr.)	1	%	83	86	88	88
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	90	90	81	79
Tetrachloro-m-xylene (surr.)	1	%	83	86	88	88
Heavy Metals						
Arsenic	2	mg/kg	2.0	5.8	2.9	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	7.0	14	11	30
Copper	5	mg/kg	33	15	22	20
Lead	5	mg/kg	11	54	33	31
Mercury	0.1	mg/kg	< 0.1	0.1	0.1	0.4
Nickel	5	mg/kg	< 5	6.1	5.7	30
Zinc	5	mg/kg	15	78	20	51
% Moisture	1	%	3.8	6.0	7.3	6.0

Client Sample ID			W2BH2(0.7_0.9M)	W2BH10(0.3_0.4M)	W2BH10(0.5_0.6M)	W2BH10(0.9_1.2M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067157**	**S22-Jn0067158**	**S22-Jn0067159**	**S22-Jn0067160**
Date Sampled			**Jun 23, 2022**	**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	130	98	80	82
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	1.2	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	91	106	89	92
p-Terphenyl-d14 (surr.)	1	%	85	100	85	80
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			W2BH2(0.7_0.9M)	W2BH10(0.3_0.4M)	W2BH10(0.5_0.6M)	W2BH10(0.9_1.2M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067157**	**S22-Jn0067158**	**S22-Jn0067159**	**S22-Jn0067160**
Date Sampled			**Jun 23, 2022**	**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	92	92	90	75
Tetrachloro-m-xylene (surr.)	1	%	90	103	88	86
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	92	92	90	75
Tetrachloro-m-xylene (surr.)	1	%	90	103	88	86
Heavy Metals						
Arsenic	2	mg/kg	< 2	2.4	2.1	2.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	7.8	6.2	10
Copper	5	mg/kg	< 5	7.8	< 5	7.5
Lead	5	mg/kg	21	48	31	68
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Nickel	5	mg/kg	< 5	< 5	< 5	< 5
Zinc	5	mg/kg	27	9.8	5.6	21
% Moisture	1	%	3.0	2.6	2.9	10

Client Sample ID			W2BH11(0.3_0.4M)	W2BH11(0.6_0.8M)	[G01]W2BH6(0.4_0.5M)	W2BH6(0.6_0.8M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0067161	S22-Jn0067162	S22-Jn0067163	S22-Jn0067164
Date Sampled			Jun 24, 2022	Jun 24, 2022	Jun 24, 2022	Jun 24, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	94	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	79	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	173	< 50
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	150	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	150	< 100
BTEX						
Benzene	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	99	112	70	78
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	1.1	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	1.4	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.7	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	0.8	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	0.9	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.8	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	0.8	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	1.6	0.6
Chrysene	0.5	mg/kg	< 0.5	< 0.5	1.4	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	2.4	1.1
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	1.3	0.8
Pyrene	0.5	mg/kg	< 0.5	< 0.5	2.1	1.0
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	13	3.5
2-Fluorobiphenyl (surr.)	1	%	79	84	119	94
p-Terphenyl-d14 (surr.)	1	%	73	83	105	90
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05

Client Sample ID			W2BH11(0.3_0.4M)	W2BH11(0.6_0.8M)	[G01]W2BH6(0.4_0.5M)	W2BH6(0.6_0.8M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0067161	S22-Jn0067162	S22-Jn0067163	S22-Jn0067164
Date Sampled			Jun 24, 2022	Jun 24, 2022	Jun 24, 2022	Jun 24, 2022
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 10	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.5	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	82	80	93	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	80	85	103	124
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 1	< 0.1
Dibutylchlorendate (surr.)	1	%	82	80	93	[Q09]INT
Tetrachloro-m-xylene (surr.)	1	%	80	85	103	124
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	3.0	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	< 5	22	7.6
Copper	5	mg/kg	10	< 5	160	9.0
Lead	5	mg/kg	25	14	52	27
Mercury	0.1	mg/kg	< 0.1	< 0.1	0.7	0.1
Nickel	5	mg/kg	< 5	< 5	13	< 5
Zinc	5	mg/kg	13	12	72	6.3
% Moisture	1	%	4.3	5.9	19	11

Client Sample ID			G01 W2BH5(0.1_0.25M)	W2BH5(0.25_0.4M)	W2BH5(1.2_1.5M)
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S22-Jn0067165	S22-Jn0067166	S22-Jn0067167
Date Sampled			Jun 24, 2022	Jun 24, 2022	Jun 24, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100
BTEX					
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	98	92	95
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene N07	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	121	96	100
p-Terphenyl-d14 (surr.)	1	%	133	103	121
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.05	< 0.05

Client Sample ID			G01 W2BH5(0.1_0.25M)	W2BH5(0.25_0.4M)	W2BH5(1.2_1.5M)
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jn0067165**	**S22-Jn0067166**	**S22-Jn0067167**
Date Sampled			**Jun 24, 2022**	**Jun 24, 2022**	**Jun 24, 2022**
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
a-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.5	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 10	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	94	99	102
Tetrachloro-m-xylene (surr.)	1	%	136	114	133
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	94	99	102
Tetrachloro-m-xylene (surr.)	1	%	136	114	133
Heavy Metals					
Arsenic	2	mg/kg	< 2	< 2	5.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	< 5	20
Copper	5	mg/kg	180	< 5	< 5
Lead	5	mg/kg	6.9	5.5	7.1
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	7.0	< 5	< 5
Zinc	5	mg/kg	32	< 5	9.1
% Moisture	1	%	3.9	2.7	6.4

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jun 30, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 30, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jun 30, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jun 30, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Jun 30, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Jun 30, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Jun 30, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Jun 30, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jun 30, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Acid Sulfate Soils Field pH Test	Brisbane	Jul 01, 2022	7 Days
- Method: LTM-GEN-7060 Determination of field pH (pHF) and field pH peroxide (pHFOX) tests			

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
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NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 901865
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 29, 2022 7:18 PM
Due: Jul 5, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	A2KBH01(0.3_0.4M)	Jun 23, 2022		Soil	S22-Jn0067137			X	X
2	A2KBH01(0.7_0.9M)	Jun 23, 2022		Soil	S22-Jn0067138			X	X
3	A2KBH01(0.5 M)	Jun 23, 2022		Soil	S22-Jn0067139		X		
4	A2KBH01(1M)	Jun 23, 2022		Soil	S22-Jn0067140		X		
5	A2KBH01(1.5 M)	Jun 23, 2022		Soil	S22-Jn0067141		X		
6	A2KBH01(2M)	Jun 23, 2022		Soil	S22-Jn0067142		X		
7	A2KBH01(2.5 M)	Jun 23, 2022		Soil	S22-Jn0067143		X		
8	A2KBH01(3M)	Jun 23, 2022		Soil	S22-Jn0067144		X		
9	A2KBH01(3.5	Jun 23, 2022		Soil	S22-Jn0067145		X		

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jun 29, 2022 7:18 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	901865	**Due:**	Jul 5, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Anurag Sobti
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
	M)								
10	A2KBH10(0_0.2M)	Jun 24, 2022		Soil	S22-Jn0067146			X	X
11	A2KBH10(0.6_0.8M)	Jun 24, 2022		Soil	S22-Jn0067147			X	X
12	A2KBH10(0.5 M)	Jun 24, 2022		Soil	S22-Jn0067148		X		
13	A2KBH10(1M)	Jun 24, 2022		Soil	S22-Jn0067149		X		
14	A2KBH10(1.5 M)	Jun 24, 2022		Soil	S22-Jn0067150		X		
15	A2KBH10(2M)	Jun 24, 2022		Soil	S22-Jn0067151		X		
16	W2BH12(0.1_0.2M)	Jun 23, 2022		Soil	S22-Jn0067152			X	X
17	W2BH12(0.2_0.3M)	Jun 23, 2022		Soil	S22-Jn0067153			X	X
18	W2BH12(0.5_0.7M)	Jun 23, 2022		Soil	S22-Jn0067154			X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
19	W2BH12(1.2_1.3M)	Jun 23, 2022		Soil	S22-Jn0067155			X	X
20	W2BH2(0.4_0.6M)	Jun 23, 2022		Soil	S22-Jn0067156			X	X
21	W2BH2(0.7_0.9M)	Jun 23, 2022		Soil	S22-Jn0067157			X	X
22	W2BH10(0.3_0.4M)	Jun 24, 2022		Soil	S22-Jn0067158			X	X
23	W2BH10(0.5_0.6M)	Jun 24, 2022		Soil	S22-Jn0067159			X	X
24	W2BH10(0.9_1.2M)	Jun 24, 2022		Soil	S22-Jn0067160			X	X
25	W2BH11(0.3_0.4M)	Jun 24, 2022		Soil	S22-Jn0067161			X	X
26	W2BH11(0.6_0.8M)	Jun 24, 2022		Soil	S22-Jn0067162			X	X
27	W2BH6(0.4_0.5M)	Jun 24, 2022		Soil	S22-Jn0067163			X	X

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Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
28	W2BH6(0.6_0.8M)	Jun 24, 2022		Soil	S22-Jn0067164			X	X
29	W2BH5(0.1_0.25M)	Jun 24, 2022		Soil	S22-Jn0067165			X	X
30	W2BH5(0.25_0.4M)	Jun 24, 2022		Soil	S22-Jn0067166			X	X
31	W2BH5(1.2_1.5M)	Jun 24, 2022		Soil	S22-Jn0067167			X	X
32	A2KBH01(0.5_0.6M)	Jun 23, 2022		Soil	S22-Jn0067168	X			
33	A2KBH10(0.3_0.5M)	Jun 24, 2022		Soil	S22-Jn0067169	X			
34	W2BH2(1.4_1.6M)	Jun 23, 2022		Soil	S22-Jn0067170	X			
35	W2BH11(1.2_1.5M)	Jun 24, 2022		Soil	S22-Jn0067171	X			
36	W2BH6(0.8_1M)	Jun 24, 2022		Soil	S22-Jn0067172	X			

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jun 29, 2022 7:18 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	901865	**Due:**	Jul 5, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Anurag Sobti
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217	X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794		X		
Test Counts	5	11	20	20

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Total PAH*	mg/kg	-			0.5	N/A	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	106			70-130	Pass	
TRH C10-C14	%	89			70-130	Pass	
Naphthalene	%	103			70-130	Pass	
TRH C6-C10	%	103			70-130	Pass	
TRH >C10-C16	%	96			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	93			70-130	Pass	
Toluene	%	96			70-130	Pass	
Ethylbenzene	%	101			70-130	Pass	
m&p-Xylenes	%	106			70-130	Pass	
o-Xylene	%	103			70-130	Pass	
Xylenes - Total*	%	105			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	87			70-130	Pass	
Acenaphthylene	%	92			70-130	Pass	
Anthracene	%	100			70-130	Pass	
Benz(a)anthracene	%	89			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	%	86			70-130	Pass	
Benzo(g.h.i)perylene	%	100			70-130	Pass	
Benzo(k)fluoranthene	%	99			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene			%	93			70-130	Pass	
Dibenz(a.h)anthracene			%	98			70-130	Pass	
Fluoranthene			%	92			70-130	Pass	
Fluorene			%	88			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	97			70-130	Pass	
Naphthalene			%	85			70-130	Pass	
Phenanthrene			%	86			70-130	Pass	
Pyrene			%	89			70-130	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	86			70-130	Pass	
4.4'-DDD			%	90			70-130	Pass	
4.4'-DDE			%	92			70-130	Pass	
4.4'-DDT			%	92			70-130	Pass	
a-HCH			%	96			70-130	Pass	
Aldrin			%	90			70-130	Pass	
b-HCH			%	91			70-130	Pass	
d-HCH			%	92			70-130	Pass	
Dieldrin			%	86			70-130	Pass	
Endosulfan I			%	88			70-130	Pass	
Endosulfan II			%	86			70-130	Pass	
Endosulfan sulphate			%	99			70-130	Pass	
Endrin			%	95			70-130	Pass	
Endrin aldehyde			%	100			70-130	Pass	
Endrin ketone			%	100			70-130	Pass	
g-HCH (Lindane)			%	90			70-130	Pass	
Heptachlor			%	88			70-130	Pass	
Heptachlor epoxide			%	88			70-130	Pass	
Hexachlorobenzene			%	88			70-130	Pass	
Methoxychlor			%	96			70-130	Pass	
LCS - % Recovery									
Polychlorinated Biphenyls									
Aroclor-1016			%	94			70-130	Pass	
Aroclor-1260			%	100			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	103			80-120	Pass	
Cadmium			%	103			80-120	Pass	
Chromium			%	102			80-120	Pass	
Copper			%	103			80-120	Pass	
Lead			%	95			80-120	Pass	
Mercury			%	104			80-120	Pass	
Nickel			%	101			80-120	Pass	
Zinc			%	102			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Jl0001265	NCP	%	81			70-130	Pass	
Naphthalene	S22-Jl0001265	NCP	%	89			70-130	Pass	
TRH C6-C10	S22-Jl0001265	NCP	%	83			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Jl0001265	NCP	%	82			70-130	Pass	
Toluene	S22-Jl0001265	NCP	%	87			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	S22-Jl0001265	NCP	%	91			70-130	Pass	
m&p-Xylenes	S22-Jl0001265	NCP	%	90			70-130	Pass	
o-Xylene	S22-Jl0001265	NCP	%	81			70-130	Pass	
Xylenes - Total*	S22-Jl0001265	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Jn0067137	CP	%	95			75-125	Pass	
Cadmium	S22-Jn0067137	CP	%	88			75-125	Pass	
Chromium	S22-Jn0067137	CP	%	89			75-125	Pass	
Copper	S22-Jl0000835	NCP	%	92			75-125	Pass	
Lead	S22-Jn0067137	CP	%	117			75-125	Pass	
Mercury	S22-Jn0067137	CP	%	101			75-125	Pass	
Nickel	S22-Jn0067137	CP	%	82			75-125	Pass	
Zinc	S22-Jl0000835	NCP	%	118			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C10-C14	S22-Jn0067154	CP	%	73			70-130	Pass	
TRH >C10-C16	S22-Jn0067154	CP	%	73			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S22-Jn0067157	CP	%	71			70-130	Pass	
4.4'-DDE	S22-Jn0067157	CP	%	74			70-130	Pass	
a-HCH	S22-Jn0067157	CP	%	72			70-130	Pass	
Aldrin	S22-Jn0067157	CP	%	73			70-130	Pass	
Dieldrin	S22-Jn0067157	CP	%	70			70-130	Pass	
Endosulfan I	S22-Jn0067157	CP	%	71			70-130	Pass	
Endrin	S22-Jn0067157	CP	%	70			70-130	Pass	
Endrin aldehyde	S22-Jn0067157	CP	%	98			70-130	Pass	
Endrin ketone	S22-Jn0067157	CP	%	79			70-130	Pass	
g-HCH (Lindane)	S22-Jn0067157	CP	%	76			70-130	Pass	
Heptachlor	S22-Jn0067157	CP	%	71			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S22-Jn0067157	CP	%	72			70-130	Pass	
Aroclor-1260	S22-Jn0067157	CP	%	77			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S22-Jn0066206	NCP	%	105			70-130	Pass	
4.4'-DDT	S22-Jn0066206	NCP	%	118			70-130	Pass	
b-HCH	S22-Jn0066206	NCP	%	100			70-130	Pass	
d-HCH	S22-Jn0066206	NCP	%	93			70-130	Pass	
Endosulfan II	S22-Jn0066206	NCP	%	110			70-130	Pass	
Endosulfan sulphate	S22-Jn0066206	NCP	%	96			70-130	Pass	
Heptachlor epoxide	S22-Jn0066181	NCP	%	87			70-130	Pass	
Hexachlorobenzene	S22-Jn0066206	NCP	%	87			70-130	Pass	
Methoxychlor	S22-Jn0066181	NCP	%	86			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Jn0067975	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Jn0047913	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Jn0047913	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Jn0047913	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Jn0067975	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C10	S22-Jn0067975	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Jn0047913	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Jn0047913	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Jn0047913	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Jn0067975	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Jn0067975	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Jn0067975	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Jn0067975	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Jn0067975	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Jn0067975	NCP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jn0067139	CP	pH Units	6.3	6.4	pass	20%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jn0067151	CP	pH Units	6.5	6.6	pass	20%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Jn0067156	CP	mg/kg	0.8	< 0.5	170	30%	Fail	Q15
Acenaphthylene	S22-Jn0067156	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Jn0067156	CP	mg/kg	2.7	< 0.5	180	30%	Fail	Q15
Benz(a)anthracene	S22-Jn0067156	CP	mg/kg	5.0	1.0	140	30%	Fail	Q02
Benzo(a)pyrene	S22-Jn0067156	CP	mg/kg	3.9	1.1	110	30%	Fail	Q15
Benzo(b&j)fluoranthene	S22-Jn0067156	CP	mg/kg	2.1	0.8	87	30%	Fail	Q15
Benzo(g.h.i)perylene	S22-Jn0067156	CP	mg/kg	2.0	0.6	110	30%	Fail	Q15
Benzo(k)fluoranthene	S22-Jn0067156	CP	mg/kg	4.7	1.2	120	30%	Fail	Q15
Chrysene	S22-Jn0067156	CP	mg/kg	2.5	1.1	78	30%	Fail	Q15
Dibenz(a.h)anthracene	S22-Jn0067156	CP	mg/kg	0.6	< 0.5	100	30%	Fail	Q15
Fluoranthene	S22-Jn0067156	CP	mg/kg	13	2.1	140	30%	Fail	Q02
Fluorene	S22-Jn0067156	CP	mg/kg	0.6	< 0.5	170	30%	Fail	Q15
Indeno(1.2.3-cd)pyrene	S22-Jn0067156	CP	mg/kg	1.9	0.6	110	30%	Fail	Q15
Naphthalene	S22-Jn0067156	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Jn0067156	CP	mg/kg	13	1.2	160	30%	Fail	Q02
Pyrene	S22-Jn0067156	CP	mg/kg	10	1.7	140	30%	Fail	Q02
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Endrin ketone	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Jn0067156	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Jn0067156	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Jn0067156	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0067156	CP	mg/kg	< 2	2.2	18	30%	Pass	
Cadmium	S22-Jn0067156	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0067156	CP	mg/kg	30	37	21	30%	Pass	
Copper	S22-Jn0067156	CP	mg/kg	20	20	1.2	30%	Pass	
Mercury	S22-Jn0067156	CP	mg/kg	0.4	0.4	4.7	30%	Pass	
Nickel	S22-Jn0067156	CP	mg/kg	30	32	4.4	30%	Pass	
Zinc	S22-Jn0067156	CP	mg/kg	51	48	6.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0067157	CP	%	3.0	3.1	3.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jn0067166	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S22-Jn0067166	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jn0067166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Copper	S22-Jn0067166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S22-Jn0067166	CP	mg/kg	5.5	6.3	14	30%	Pass	
Mercury	S22-Jn0067166	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jn0067166	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Jn0067166	CP	mg/kg	< 5	5.6	17	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jn0067167	CP	%	6.4	7.1	11	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
S05	Field Screen uses the following fizz rating to classify the rate the samples reacted to the peroxide: 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reaction.

Authorised by:

Emma Beesley	Analytical Services Manager
Sayeed Abu	Senior Analyst-Asbestos
Roopesh Rangarajan	Senior Analyst-Organic
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Volatile
Charl Du Preez	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention:	Anurag Sobti
Report	901865-AID
Project Name	AUSGRID CABLE PROJECT
Project ID	14777
Received Date	Jun 29, 2022
Date Reported	Jul 05, 2022

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name AUSGRID CABLE PROJECT
Project ID 14777
Date Sampled Jun 23, 2022 to Jun 24, 2022
Report 901865-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
A2KBH01(0.3_0.4M)	22-Jn0067137	Jun 23, 2022	Approximate Sample 284g Sample consisted of: Brown coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH01(0.7_0.9M)	22-Jn0067138	Jun 23, 2022	Approximate Sample 402g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH10(0_0.2M)	22-Jn0067146	Jun 24, 2022	Approximate Sample 175g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH10(0.6_0.8M)	22-Jn0067147	Jun 24, 2022	Approximate Sample 329g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH12(0.1_0.2M)	22-Jn0067152	Jun 23, 2022	Approximate Sample 198g Sample consisted of: Brown coarse-grained soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH12(0.2_0.3M)	22-Jn0067153	Jun 23, 2022	Approximate Sample 276g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH12(0.5_0.7M)	22-Jn0067154	Jun 23, 2022	Approximate Sample 391g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH12(1.2_1.3M)	22-Jn0067155	Jun 23, 2022	Approximate Sample 313g Sample consisted of: Brown coarse-grained sandy soil, bitumen and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
W2BH2(0.4_0.6M)	22-Jn0067156	Jun 23, 2022	Approximate Sample 295g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH2(0.7_0.9M)	22-Jn0067157	Jun 23, 2022	Approximate Sample 278g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH10(0.3_0.4M)	22-Jn0067158	Jun 24, 2022	Approximate Sample 146g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH10(0.5_0.6M)	22-Jn0067159	Jun 24, 2022	Approximate Sample 157g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH10(0.9_1.2M)	22-Jn0067160	Jun 24, 2022	Approximate Sample 313g Sample consisted of: Brown coarse-grained sandy soil, glass and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH11(0.3_0.4M)	22-Jn0067161	Jun 24, 2022	Approximate Sample 312g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH11(0.6_0.8M)	22-Jn0067162	Jun 24, 2022	Approximate Sample 427g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH6(0.4_0.5M)	22-Jn0067163	Jun 24, 2022	Approximate Sample 422g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH6(0.6_0.8M)	22-Jn0067164	Jun 24, 2022	Approximate Sample 503g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH5(0.1_0.25M)	22-Jn0067165	Jun 24, 2022	Approximate Sample 509g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH5(0.25_0.4M)	22-Jn0067166	Jun 24, 2022	Approximate Sample 459g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2BH5(1.2_1.5M)	22-Jn0067167	Jun 24, 2022	Approximate Sample 196g Sample consisted of: Brown coarse-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jun 30, 2022	Indefinite

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 901865
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 29, 2022 7:18 PM
Due: Jul 5, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	A2KBH01(0.3_0.4M)	Jun 23, 2022		Soil	S22-Jn0067137			X	X
2	A2KBH01(0.7_0.9M)	Jun 23, 2022		Soil	S22-Jn0067138			X	X
3	A2KBH01(0.5 M)	Jun 23, 2022		Soil	S22-Jn0067139		X		
4	A2KBH01(1M)	Jun 23, 2022		Soil	S22-Jn0067140		X		
5	A2KBH01(1.5 M)	Jun 23, 2022		Soil	S22-Jn0067141		X		
6	A2KBH01(2M)	Jun 23, 2022		Soil	S22-Jn0067142		X		
7	A2KBH01(2.5 M)	Jun 23, 2022		Soil	S22-Jn0067143		X		
8	A2KBH01(3M)	Jun 23, 2022		Soil	S22-Jn0067144		X		
9	A2KBH01(3.5	Jun 23, 2022		Soil	S22-Jn0067145		X		

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jun 29, 2022 7:18 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	901865	**Due:**	Jul 5, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Anurag Sobti
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
	M)								
10	A2KBH10(0_0.2M)	Jun 24, 2022		Soil	S22-Jn0067146			X	X
11	A2KBH10(0.6_0.8M)	Jun 24, 2022		Soil	S22-Jn0067147			X	X
12	A2KBH10(0.5 M)	Jun 24, 2022		Soil	S22-Jn0067148		X		
13	A2KBH10(1M)	Jun 24, 2022		Soil	S22-Jn0067149		X		
14	A2KBH10(1.5 M)	Jun 24, 2022		Soil	S22-Jn0067150		X		
15	A2KBH10(2M)	Jun 24, 2022		Soil	S22-Jn0067151		X		
16	W2BH12(0.1_0.2M)	Jun 23, 2022		Soil	S22-Jn0067152			X	X
17	W2BH12(0.2_0.3M)	Jun 23, 2022		Soil	S22-Jn0067153			X	X
18	W2BH12(0.5_0.7M)	Jun 23, 2022		Soil	S22-Jn0067154			X	X

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Address: 10 Welder Road
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Received: Jun 29, 2022 7:18 PM
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Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
19	W2BH12(1.2_1.3M)	Jun 23, 2022		Soil	S22-Jn0067155			X	X
20	W2BH2(0.4_0.6M)	Jun 23, 2022		Soil	S22-Jn0067156			X	X
21	W2BH2(0.7_0.9M)	Jun 23, 2022		Soil	S22-Jn0067157			X	X
22	W2BH10(0.3_0.4M)	Jun 24, 2022		Soil	S22-Jn0067158			X	X
23	W2BH10(0.5_0.6M)	Jun 24, 2022		Soil	S22-Jn0067159			X	X
24	W2BH10(0.9_1.2M)	Jun 24, 2022		Soil	S22-Jn0067160			X	X
25	W2BH11(0.3_0.4M)	Jun 24, 2022		Soil	S22-Jn0067161			X	X
26	W2BH11(0.6_0.8M)	Jun 24, 2022		Soil	S22-Jn0067162			X	X
27	W2BH6(0.4_0.5M)	Jun 24, 2022		Soil	S22-Jn0067163			X	X

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 901865
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 29, 2022 7:18 PM
Due: Jul 5, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794							X		
28	W2BH6(0.6_0.8M)	Jun 24, 2022		Soil	S22-Jn0067164			X	X
29	W2BH5(0.1_0.25M)	Jun 24, 2022		Soil	S22-Jn0067165			X	X
30	W2BH5(0.25_0.4M)	Jun 24, 2022		Soil	S22-Jn0067166			X	X
31	W2BH5(1.2_1.5M)	Jun 24, 2022		Soil	S22-Jn0067167			X	X
32	A2KBH01(0.5_0.6M)	Jun 23, 2022		Soil	S22-Jn0067168	X			
33	A2KBH10(0.3_0.5M)	Jun 24, 2022		Soil	S22-Jn0067169	X			
34	W2BH2(1.4_1.6M)	Jun 23, 2022		Soil	S22-Jn0067170	X			
35	W2BH11(1.2_1.5M)	Jun 24, 2022		Soil	S22-Jn0067171	X			
36	W2BH6(0.8_1M)	Jun 24, 2022		Soil	S22-Jn0067172	X			

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jun 29, 2022 7:18 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	901865	**Due:**	Jul 5, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Anurag Sobti
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217	X		X	X
Brisbane Laboratory - NATA # 1261 Site # 20794		X		
Test Counts	5	11	20	20

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Mehran Asadabadi**

Report **911518-L**
Project name ADDITIONAL - AUSGRID CABLE PROJECT
Project ID ADDITIONAL - 14777
Received Date Aug 04, 2022

Client Sample ID			**W2BH2 (0.4-0.6M)**	**W2BH12 (0.1-0.2M)**	**W2BH12 (0.2-0.3M)**	**W2BH12 (1.2-1.3M0**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Au0009897**	**S22-Au0009898**	**S22-Au0009899**	**S22-Au0009900**
Date Sampled			**Jul 23, 2022**	**Jul 23, 2022**	**Jul 23, 2022**	**Jul 23, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	0.001	0.001	< 0.001
USA Leaching Procedure						
Leachate Fluid[C01]		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	9.8	8.5	8.2	7.1
pH (off)	0.1	pH Units	5.6	5.2	5.2	5.1
pH (USA HCl addition)	0.1	pH Units	0.9	0.9	0.9	0.8

Client Sample ID			**A2KBH01 (0.7-0.9M)**
Sample Matrix			**US Leachate**
Eurofins Sample No.			**S22-Au0009901**
Date Sampled			**Jul 23, 2022**
Test/Reference	LOR	Unit	
USA Leaching Procedure			
Leachate Fluid[C01]		comment	1.0
pH (initial)	0.1	pH Units	6.5
pH (off)	0.1	pH Units	5.2
pH (USA HCl addition)	0.1	pH Units	0.9
Heavy Metals			
Nickel	0.01	mg/L	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 04, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
USA Leaching Procedure	Sydney	Aug 04, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Heavy Metals	Sydney	Aug 04, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
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Order No.:
Report #: 911518
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Aug 4, 2022 2:30 PM
Due: Aug 5, 2022
Priority: 1 Day
Contact Name: Mehran Asadabadi

Project Name: ADDITIONAL - AUSGRID CABLE PROJECT
Project ID: ADDITIONAL - 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Nickel	USA Leaching Procedure
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	W2BH2 (0.4-0.6M)	Jul 23, 2022		US Leachate	S22-Au0009897	X		X
2	W2BH12 (0.1-0.2M)	Jul 23, 2022		US Leachate	S22-Au0009898	X		X
3	W2BH12 (0.2-0.3M)	Jul 23, 2022		US Leachate	S22-Au0009899	X		X
4	W2BH12 (1.2-1.3M0	Jul 23, 2022		US Leachate	S22-Au0009900	X		X
5	A2KBH01 (0.7-0.9M)	Jul 23, 2022		US Leachate	S22-Au0009901		X	X
Test Counts						4	1	5

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Nickel			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Nickel			%	88			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Nickel	S22-Au0009233	NCP	%	84			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel	S22-Au0008422	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other

Authorised by:

Robert Biviano	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 20794

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Mehran Asadabadi**

Report **911531-S**
Project name ADDITIONAL - AUSGRID CABLE PROJECT
Project ID ADDITIONAL - 14777
Received Date Aug 04, 2022

Client Sample ID			**A2KBH01 (1m)**	**A2KBH01 (2m)**	**A2KBH01 (3m)**	**A2KBH01 (3.5m)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Au0009999**	**S22-Au0010000**	**S22-Au0010001**	**S22-Au0010002**
Date Sampled			**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**	**Jun 23, 2022**
Test/Reference	LOR	Unit				
Actual Acidity (NLM-3.2)						
pH-KCL (NLM-3.1)	0.1	pH Units	5.0	4.9	4.5	4.8
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	24	35	60	39
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	0.038	0.057	0.095	0.062
Potential Acidity - Chromium Reducible Sulfur						
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)[S04]	0.005	% S	0.020	0.076	0.53	0.23
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	3	mol H+/t	12	48	330	140
Extractable Sulfur						
Sulfur - KCl Extractable	0.005	% S	N/A	N/A	N/A	N/A
HCl Extractable Sulfur	0.005	% S	N/A	N/A	N/A	N/A
Retained Acidity (S-NAS)						
Net Acid soluble sulfur (SNAS) NLM-4.1	0.02	% S	N/A	N/A	N/A	N/A
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	N/A	N/A	N/A	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	N/A	N/A	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0	2.0	2.0	2.0
Acid Neutralising Capacity (ANCbt)						
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO3	N/A	N/A	N/A	N/A
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)[S03]	0.02	% S	N/A	N/A	N/A	N/A
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	N/A	N/A	N/A	N/A
ANC Fineness Factor		factor	1.5	1.5	1.5	1.5
Net Acidity (Including ANC)						
CRS Suite - Net Acidity - NASSG (Including ANC)	0.02	% S	0.06	0.13	0.63	0.29
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	36	83	390	180
CRS Suite - Liming Rate - NASSG (Including ANC)[S01]	1	kg CaCO3/t	2.7	6.2	29	14
Extraneous Material						
<2mm Fraction	0.005	g	83	56	78	120
>2mm Fraction	0.005	g	< 0.005	< 0.005	< 0.005	0.36
Analysed Material	0.1	%	100	100	100	100
Extraneous Material	0.1	%	< 0.1	< 0.1	< 0.1	0.3
% Moisture	1	%	18	36	33	20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Chromium Reducible Sulfur Suite			
Chromium Suite	Brisbane	Aug 05, 2022	6 Week
- Method: LTM-GEN-7070 Chromium Reducible Sulfur Suite			
Extraneous Material	Brisbane	Aug 05, 2022	6 Week
- Method: LTM-GEN-7050/7070			
% Moisture	Brisbane	Aug 04, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

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email: EnviroSales@eurofins.com

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NATA# 1261 Site# 18217

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NATA# 1261 Site# 20794

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Tel: +61 2 4968 8448
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Rolleston,
Christchurch 7675
Tel: 0800 856 450
IANZ# 1290

Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Order No.:
Report #: 911531
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Aug 4, 2022 2:06 PM
Due: Aug 9, 2022
Priority: 3 Day
Contact Name: Mehran Asadabadi

Project Name: ADDITIONAL - AUSGRID CABLE PROJECT
Project ID: ADDITIONAL - 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						CANCELLED	Chromium Reducible Sulfur Suite	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X		
Brisbane Laboratory - NATA # 1261 Site # 20794							X	X
External Laboratory								
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**			
1	A2KBH01 (0.7-0.9m)	Jun 23, 2022		Soil	S22-Au0009998	X		
2	A2KBH01 (1m)	Jun 23, 2022		Soil	S22-Au0009999		X	X
3	A2KBH01 (2m)	Jun 23, 2022		Soil	S22-Au0010000		X	X
4	A2KBH01 (3m)	Jun 23, 2022		Soil	S22-Au0010001		X	X
5	A2KBH01 (3.5m)	Jun 23, 2022		Soil	S22-Au0010002		X	X
Test Counts						1	4	4

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery									
Actual Acidity (NLM-3.2)									
pH-KCL (NLM-3.1)			%	104			80-120	Pass	
Titratable Actual Acidity (NLM-3.2)			%	99			80-120	Pass	
LCS - % Recovery									
Potential Acidity - Chromium Reducible Sulfur									
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)			%	103			80-120	Pass	
LCS - % Recovery									
Extractable Sulfur									
HCl Extractable Sulfur			%	112			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Actual Acidity (NLM-3.2)				Result 1	Result 2	RPD			
pH-KCL (NLM-3.1)	L22-Au0007036	NCP	pH Units	8.8	8.8	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	L22-Au0007036	NCP	mol H+/t	< 2	< 2	<1	20%	Pass	
Titratable Actual Acidity (NLM-3.2)	L22-Au0007036	NCP	% pyrite S	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Potential Acidity - Chromium Reducible Sulfur				Result 1	Result 2	RPD			
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)	L22-Au0007036	NCP	% S	< 0.005	< 0.005	<1	20%	Pass	
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	L22-Au0007036	NCP	mol H+/t	< 3	< 3	<1	30%	Pass	
Duplicate									
Extractable Sulfur				Result 1	Result 2	RPD			
Sulfur - KCl Extractable	L22-Au0007036	NCP	% S	N/A	N/A	N/A	30%	Pass	
HCl Extractable Sulfur	L22-Au0007036	NCP	% S	N/A	N/A	N/A	20%	Pass	
Duplicate									
Retained Acidity (S-NAS)				Result 1	Result 2	RPD			
Net Acid soluble sulfur (SNAS) NLM-4.1	L22-Au0007036	NCP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (s-SNAS) NLM-4.1	L22-Au0007036	NCP	% S	N/A	N/A	N/A	30%	Pass	
Net Acid soluble sulfur (a-SNAS) NLM-4.1	L22-Au0007036	NCP	mol H+/t	N/A	N/A	N/A	30%	Pass	
Duplicate									
Acid Neutralising Capacity (ANCbt)				Result 1	Result 2	RPD			
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	L22-Au0007036	NCP	% CaCO3	0.33	0.38	14	20%	Pass	
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)	L22-Au0007036	NCP	% S	0.11	0.12	14	30%	Pass	
ANC Fineness Factor	L22-Au0007036	NCP	factor	1.5	1.5	<1	30%	Pass	
Duplicate									
Net Acidity (Including ANC)				Result 1	Result 2	RPD			
CRS Suite - Net Acidity - NASSG (Including ANC)	L22-Au0007036	NCP	% S	< 0.02	< 0.02	<1	30%	Pass	
CRS Suite - Net Acidity - NASSG (Including ANC)	L22-Au0007036	NCP	mol H+/t	< 10	< 10	<1	30%	Pass	
CRS Suite - Liming Rate - NASSG (Including ANC)	L22-Au0007036	NCP	kg CaCO3/t	< 1	< 1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	B22-Au0009461	NCP	%	12	15	21	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
S01	Liming rate is calculated and reported on a dry weight basis assuming use of fine agricultural lime (CaCO3) and using a safety factor of 1.5 to allow for non-homogeneous mixing and poor reactivity of lime. For conversion of Liming Rate from 'kg/t dry weight' to 'kg/m3 in-situ soil' multiply 'reported results' x 'wet bulk density of soil in t/m3'
S02	Retained Acidity is Reported when the pHKCl is less than pH 4.5
S03	Acid Neutralising Capacity is only required if the pHKCl if greater than or equal to pH 6.5
S04	Acid Sulfate Soil Samples have a 24 hour holding time unless frozen or dried within that period

Authorised by:

Andrew Black	Analytical Services Manager
Jonathon Angell	Senior Analyst-Sample Properties

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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NATA# 1261 Site# 1254	NATA# 1261 Site# 1254	NATA# 1261 Site# 18217		NATA# 1261 Site# 20794	NATA# 1261 Site# 25079

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IANZ# 1327	IANZ# 1290

Sample Receipt Advice

Company name:	Alliance Geotechnical
Contact name:	Anurag Sobti
Project name:	AUSGRID CABLE PROJECT
Project ID:	14777
Turnaround time:	3 Day
Date/Time received	Jul 18, 2022 5:55 PM
Eurofins reference	906875

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: AndrewBlack@eurofins.com

Results will be delivered electronically via email to Anurag Sobti - anurag@allgeo.com.au.

Note: A copy of these results will also be delivered to the general Alliance Geotechnical email address.

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

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☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl, Murarrie, QLD 4172 — 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses — Allaince WAC Suite 2; pH Screening

Containers — 1L Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos AS4964 VIA Guidelines)

Turnaround Time (TAT) Requirements (without this, we'll assume 3 days if not picked)

☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day*
☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	pH Screening	On Hold	Sample Comments / Dangerous Goods Hazard Warning
1	A2KBH11(0.0-0.2m)	11/07/22	S	X			
2	A2KBH11(0.3-0.5m)	11/07/22	S	X			
3	A2KBH11(1.2-1.5m)	11/07/22	S	X		X	
4	A2KBH11(0.5m)	11/07/22	S		X		
5	A2KBH11(1.0m)	11/07/22	S		X		
6	A2KBH11(1.5m)	11/07/22	S		X		
7	A2KBH11(2.0m)	11/07/22	S		X		
8	A2KBH11(2.5m)	11/07/22	S		X		
9	A2KBH11(3.0m)	11/07/22	S		X		
10	A2KBH11(3.5m)	11/07/22	S		X		
11	A2KBH11(4.0m)	11/07/22	S		X		
12	A2KBH11(4.5m)	11/07/22	S		X		
13	A2KBH11(5.0m)	11/07/22	S		X		
14	A2KBH11(5.5m)	11/07/22	S		X		
15	A2KBH11(6.0m)	11/07/22	S		X		
16	A2KBH11(6.5m)	11/07/22	S		X		
17	A2KBH11(7.0m)	11/07/22	S		X		
18	A2KBH12(0.0-0.2m)	11/07/22	S	X			
	Total Counts			3	14	1	

3 Day TAT at standard rates as per agreement.

Method of Shipment	☐ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Aaron Hong	Signature	[redacted]
Date	18/7/22	Time					

Eurofins | mgt Laboratory Use Only	Received By	Lisa Zulic	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	[redacted]	Date	18/7/22
	Time	5.55pm	Temperature	14.6°C			
	Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date	/ /
	Time	:	Report №	906875			

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

Eurofins Environment Testing Australia Pty Ltd trading as Eurofins | mgt

CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

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☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses

Containers

Turnaround Time (TAT) Requirements (Defaults will be 5 days if not specified)

☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	pH Screening	On Hold	1L Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other / Asbestos AS4964 via Guidelines	Sample Comments / Dangerous Goods Hazard Warning
1	A2KBH12(0.5-0.7m)	11/07/22	S	X											
2	A2KBH12(0.9-1.2m)	11/07/22	S			X									
3	A2KBH12(0.5m)	11/07/22	S		X										3 Day TAT at standard rates as per agreement.
4	A2KBH12(1.0m)	11/07/22	S		X										
5	A2KBH12(1.5m)	11/07/22	S		X										
6	A2KBH12(2.0m)	11/07/22	S		X										
7	A2KBH12(2.5m)	11/07/22	S		X										
8	A2KBH12(3.0m)	11/07/22	S		X										
9	A2KBH12(3.5m)	11/07/22	S		X										
10	A2KBH12(4.0m)	11/07/22	S		X										
11	A2KBH12(4.5m)	11/07/22	S		X										
12	A2KBH12(5.0m)	11/07/22	S		X										
13	A2KBH12(5.5m)	11/07/22	S		X										
14	A2KBH12(6.0m)	11/07/22	S		X										
15	A2KBH12(6.5m)	11/07/22	S		X										
16	A2KBH12(7.0m)	11/07/22	S		X										
17	A2KBH12(7.5m)	11/07/22	S		X										
18	A2KBH12(8.0m)	11/07/22	S		X										
		Total Counts		1	15	1									

Method of Shipment ☐ Courier (#) ☐ Hand Delivered ☐ Postal — Name: Aaron Hong — Signature: [signature] — Date: 13/7/22 — Time:

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Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time __:__	Temperature	
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time __:__	Report №	

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CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory
Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

☐ Perth Laboratory
Unit 2, 91 Leach Highway, Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
2 Kingston Town Close, Oakleigh, VIC 3166
03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses

Containers

Turnaround Time (TAT) Requirements
(Default will be 5 days if not ticked)

☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	pH Screening	1L Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos 4S3964, VA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	A2KBH12(8.5m)	11/07/22	S	X	X									
2	A2KBH12(9.0m)	11/07/22	S	X	X									
3	A2KBH12(9.5m)	11/07/22	S		X									
4	A2KBH12(10.0m)	11/07/22	S		X									
5	A2KBH22(0.0-0.2m)	12/07/22	S	X	X									
6	A2KBH22(0.5-0.7m)	12/07/22	S	X	X									
7	A2KBH22(0.5m)	12/07/22	S		X									
8	A2KBH22(1.0m)	12/07/22	S		X									
9	A2KBH22(1.5m)	12/07/22	S		X									
10	A2KBH22(2.0m)	12/07/22	S		X									
11	A2KBH22(2.5m)	12/07/22	S		X									
12	A2KBH22(3.0m)	12/07/22	S		X									
13	A2KBH22(3.5m)	12/07/22	S		X									
14	A2KBH22(4.0m)	12/07/22	S		X									
15	A2KBH22(4.5m)	12/07/22	S		X									
16	A2KBH22(5.0m)	12/07/22	S		X									
17	A2KBH22(5.5m)	12/07/22	S		X									
18	A2KBH22(6.0m)	12/07/22	S		X									
		Total Counts		2	16									

3 Day TAT at standard rates as per agreement.

Method of Shipment ☐ Courier (#) ☐ Hand Delivered ☐ Postal Name Aaron Hong Signature [signature] Date 15/07/2022 Time

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Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	[redacted]	__/__/__	Time	__:__	Temperature
Received By	SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date	__/__/__	Time	__:__	Report №

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CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory
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02 9900 8400 EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory
Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172
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☐ Perth Laboratory
Unit 2, 91 Leach Highway, Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory
2 Kingston Town Close, Oakleigh, VIC 3166
03 8564 5000 EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Analyses

Containers

Turnaround Time (TAT) Requirements
(Default will be 5 days if not listed)

☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	pH Screening	On Hold	1L Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA vial	500mL PFAS Bottle	Jar (Glass or HDPE)	Other (Asbestos AS4964, VIA Guidelines)	Sample Comments / Dangerous Goods Hazard Warning
1	A2KBH22(6.5m)	12/07/22	S		X										
2	A2KBH22(7.0m)	12/07/22	S		X										
3	A2KBH22(7.5m)	12/07/22	S		X										3 Day TAT at standard rates as per agreement.
4	A2KBH22(8.0m)	12/07/22	S		X										
5	A2KBH22(8.5m)	12/07/22	S		X										
6	A2KBH22(9.0m)	12/07/22	S		X										
7	A2KBH22(9.5m)	12/07/22	S		X										
8	NSBH3(0.2-0.4m)	7/07/22	S	X											
9	NSBH3(0.8-1.0m)	7/07/22	S	X											
10	NSBH3(1.2-1.5m)	7/07/22	S			X									
11	NSBH4(0.3-0.4m)	7/07/22	S	X											
12	NSBH4(0.6-0.8m)	7/07/22	S	X											
13	NSBH4(1.0-1.3m)	7/07/22	S			X									
14	NSBH1(0.4-0.6m)	12/07/22	S	X											
15	NSBH1(1.0-1.2m)	12/07/22	S	X											
16	NSBH1(2.0-2.2m)	12/07/22	S			X									
17	W2SBH8(0.4-0.6m)	11/07/22	S	X											
18	W2SBH8(0.8-1.0m)	11/07/22	S	X											
	Total Counts			8	7	3									

Method of Shipment ☐ Courier (#) ☐ Hand Delivered ☐ Postal Name Aaron Hong Signature Date 12/07/2022 Time

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Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date __/__/__	Time __:__	Temperature	
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature		Date __/__/__	Time __:__	Report №	

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CHAIN OF CUSTODY RECORD

ABN 50 005 085 521

☑ Sydney Laboratory — Unit F3 Bld.F, 16 Mars Rd, Lane Cove West, NSW 2066 — 02 9900 8400 — EnviroSampleNSW@eurofins.com

☐ Brisbane Laboratory — Unit 1, 21 Smallwood Pl., Murarrie, QLD 4172 — 07 3902 4600 — EnviroSampleQLD@eurofins.com

☐ Perth Laboratory — Unit 2, 91 Leach Highway, Kewdale WA 6105 — 08 9251 9600 — EnviroSampleWA@eurofins.com

☐ Melbourne Laboratory — 2 Kingston Town Close, Oakleigh, VIC 3166 — 03 8564 5000 — EnviroSampleVic@eurofins.com

Company	Alliance Geotechnical	Project №	14777	Project Manager	AS
Address	10 Welder Rd Seven Hills	Project Name	Ausgrid Cable Project	EDD Format (ESdat, EQuIS, Custom)	
Contact Name	Aaron Hong				
Phone №	0437711083				
Special Directions					
Purchase Order	14777				
Quote ID №					

Sampler(s)	AH
Handed over by	AH
Email for Invoice	admin@allgeo.com.au
Email for Results	enviro@allgeo.com.au

Containers: 1L Plastic; 250mL Plastic; 125mL Plastic; 200mL Amber Glass; 40mL VOA vial; 500mL PFAS Bottle; Jar (Glass or HDPE); Other (Asbestos ASWQ, WA Guidelines)

Turnaround Time (TAT) Requirements (Deliver will be 3 days if not ticked)
☐ Overnight (9am)*
☐ 1 Day* ☐ 2 Day*
☑ 3 Day* ☐ 5 Day
* Surcharges apply
☐ Other ( )

№	Client Sample ID	Sampled Date/Time (dd/mm/yy hh:mm)	Matrix (Solid (S) Water (W))	Allaince WAC Suite 2	pH Screening	On Hold	Containers	Sample Comments / Dangerous Goods Hazard Warning
1	W2SBH8(1.5-1.7m)	11/07/22	S			X		
2	W2SBH9(0.5-0.7m)	13/07/22	S	X				
3	W2SBH9(0.8-1.0m)	13/07/22	S	X				
4	W2SBH9(1.2-1.4m)	13/07/22	S			X		
5	W2SBH13(0.8-1.0m)	13/07/22	S	X				
6	W2SBH13(1.2-1.4m)	13/07/22	S	X				
7	W2SBH13(1.5-1.7m)	13/07/22	S			X		
8	W2SBH14(0.2-0.4m)	13/07/22	S	X				
9	W2SBH14(0.8-1.0m)	13/07/22	S	X				
10	W2SBH14(1.5-1.7m)	13/07/22	S			X		
11	W2SBH15(0.3-0.5m)	13/07/22	S	X				
12	W2SBH15(0.5-0.7m)	13/07/22	S	X				
13								
14								
15								
16								
17								
18								
		Total Counts		8		4		

3 Day TAT at standard rates as per agreement.

Method of Shipment	☐ Courier (#)	☐ Hand Delivered	☐ Postal	Name	Aaron Hong	Signature	Date 18/07/2022	Time

Eurofins | mgt Laboratory Use Only							
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time __:__	Temperature	
Received By		SYD | BNE | MEL | PER | ADL | NTL | DRW	Signature	Date __/__/__	Time __:__	Report №	

Submission of samples to the laboratory will be deemed as acceptance of Eurofins | mgt Standard Terms and Conditions unless agreed otherwise. A copy of Eurofins | mgt Standard Terms and Conditions is available on request.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Anurag Sobti**

Report **906875-S**
Project name AUSGRID CABLE PROJECT
Project ID 14777
Received Date Jul 18, 2022

Client Sample ID			**A2KBH11(0.0-0.2M)**	**A2KBH11(0.3-0.5M)**	**A2KBH11(0.5M)**	**A2KBH11(1.0M)**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036905**	**S22-Jl0036906**	**S22-Jl0036907**	**S22-Jl0036908**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	-	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	68	122	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			A2KBH11(0.0-0.2M)	A2KBH11(0.3-0.5M)	A2KBH11(0.5M)	A2KBH11(1.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036905**	**S22-JI0036906**	**S22-JI0036907**	**S22-JI0036908**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	107	89	-	-
p-Terphenyl-d14 (surr.)	1	%	101	83	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-HCH	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-HCH	0.05	mg/kg	< 0.05	< 0.05	-	-
d-HCH	0.05	mg/kg	< 0.05	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	105	89	-	-
Tetrachloro-m-xylene (surr.)	1	%	112	93	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	-	-
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	105	89	-	-
Tetrachloro-m-xylene (surr.)	1	%	112	93	-	-

Client Sample ID			A2KBH11(0.0-0.2M)	A2KBH11(0.3-0.5M)	A2KBH11(0.5M)	A2KBH11(1.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036905**	**S22-JI0036906**	**S22-JI0036907**	**S22-JI0036908**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	-	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	-
Chromium	5	mg/kg	< 5	< 5	-	-
Copper	5	mg/kg	< 5	< 5	-	-
Lead	5	mg/kg	11	6.7	-	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	-
Nickel	5	mg/kg	< 5	< 5	-	-
Zinc	5	mg/kg	22	17	-	-
% Moisture	1	%	6.6	6.2	-	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	-	7.2	7.3
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	-	5.5	5.7
Reaction Ratings*[S05]	0	-	-	-	2.0	2.0

Client Sample ID			A2KBH11(1.5M)	A2KBH11(2.0M)	A2KBH11(2.5M)	A2KBH11(3.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036909**	**S22-JI0036910**	**S22-JI0036911**	**S22-JI0036912**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	7.2	7.1	7.3	7.1
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.8	5.7	5.9	6.0
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH11(3.5M)	A2KBH11(4.0M)	A2KBH11(4.5M)	A2KBH11(5.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036913**	**S22-JI0036914**	**S22-JI0036915**	**S22-JI0036916**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	7.4	6.9	7.5	6.9
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	6.0	5.7	6.1	5.9
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH11(5.5M)	A2KBH11(6.0M)	A2KBH11(6.5M)	A2KBH11(7.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036917**	**S22-JI0036918**	**S22-JI0036919**	**S22-JI0036920**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.9	7.1	6.8	6.6
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.8	5.6	5.2	5.3
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH12(0.0-0.2M)	A2KBH12(0.5-0.7M)	A2KBH12(0.5M)	A2KBH12(1.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036921**	**S22-JI0036922**	**S22-JI0036923**	**S22-JI0036924**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	< 20	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	-	-
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	-	-
TRH C6-C10	20	mg/kg	< 20	< 20	-	-
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	-	-
TRH >C10-C16	50	mg/kg	< 50	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	-	-
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	109	73	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID			A2KBH12(0.0-0.2M)	A2KBH12(0.5-0.7M)	A2KBH12(0.5M)	A2KBH12(1.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036921**	**S22-Jl0036922**	**S22-Jl0036923**	**S22-Jl0036924**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	83	100	-	-
p-Terphenyl-d14 (surr.)	1	%	83	139	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	-	-
a-HCH	0.05	mg/kg	< 0.05	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
b-HCH	0.05	mg/kg	< 0.05	< 0.05	-	-
d-HCH	0.05	mg/kg	< 0.05	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	-	-
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	-	-
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	89	106	-	-
Tetrachloro-m-xylene (surr.)	1	%	87	103	-	-
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	-	-
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	89	106	-	-
Tetrachloro-m-xylene (surr.)	1	%	87	103	-	-

Client Sample ID			A2KBH12(0.0-0.2M)	A2KBH12(0.5-0.7M)	A2KBH12(0.5M)	A2KBH12(1.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036921**	**S22-JI0036922**	**S22-JI0036923**	**S22-JI0036924**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	-	-
Cadmium	0.4	mg/kg	< 0.4	< 0.4	-	-
Chromium	5	mg/kg	< 5	< 5	-	-
Copper	5	mg/kg	12	< 5	-	-
Lead	5	mg/kg	12	< 5	-	-
Mercury	0.1	mg/kg	< 0.1	< 0.1	-	-
Nickel	5	mg/kg	7.0	< 5	-	-
Zinc	5	mg/kg	17	< 5	-	-
% Moisture	1	%	7.5	4.8	-	-
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	-	-	6.8	6.8
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	-	-	4.6	4.9
Reaction Ratings*[S05]	0	-	-	-	2.0	2.0

Client Sample ID			A2KBH12(1.5M)	A2KBH12(2.0M)	A2KBH12(2.5M)	A2KBH12(3.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036925**	**S22-JI0036926**	**S22-JI0036927**	**S22-JI0036928**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.9	7.2	7.3	7.2
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.7	5.6	5.3	5.7
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH12(3.5M)	A2KBH12(4.0M)	A2KBH12(4.5M)	A2KBH12(5.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036929**	**S22-JI0036930**	**S22-JI0036931**	**S22-JI0036932**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	7.3	6.7	4.9	5.0
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.4	5.3	4.3	4.5
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH12(5.5M)	A2KBH12(6.0M)	A2KBH12(6.5M)	A2KBH12(7.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036933**	**S22-JI0036934**	**S22-JI0036935**	**S22-JI0036936**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	5.7	6.2	6.7	7.0
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	4.7	4.7	5.9	5.7
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH12(7.5M)	A2KBH12(8.0M)	A2KBH12(8.5M)	A2KBH12(9.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036937**	**S22-JI0036938**	**S22-JI0036939**	**S22-JI0036940**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 11, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	7.0	7.3	7.4	7.3
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.6	6.1	5.9	5.8
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH12(9.5M)	A2KBH12(10.0M)	[G01]A2KBH22(0.0-0.2M)	A2KBH22(0.5-0.7M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036941**	**S22-JI0036942**	**S22-JI0036943**	**S22-JI0036944**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 12, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	< 20	< 20
TRH C10-C14	20	mg/kg	-	-	< 20	< 20
TRH C15-C28	50	mg/kg	-	-	< 50	< 50
TRH C29-C36	50	mg/kg	-	-	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	-	-	< 50	< 50
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	-	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	< 20	< 20
TRH >C10-C16	50	mg/kg	-	-	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	< 50	< 50
TRH >C16-C34	100	mg/kg	-	-	< 100	< 100
TRH >C34-C40	100	mg/kg	-	-	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	-	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	104	74

Client Sample ID			A2KBH12(9.5M)	A2KBH12(10.0M)	G01 A2KBH22(0.0-0.2M)	A2KBH22(0.5-0.7M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-JI0036941	S22-JI0036942	S22-JI0036943	S22-JI0036944
Date Sampled			Jul 11, 2022	Jul 11, 2022	Jul 12, 2022	Jul 12, 2022
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	1.2	1.2
Acenaphthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene N07	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	-	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	85	98
p-Terphenyl-d14 (surr.)	1	%	-	-	82	93
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.3	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	0.10	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	< 0.05
a-HCH	0.05	mg/kg	-	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
b-HCH	0.05	mg/kg	-	-	< 0.05	< 0.05
d-HCH	0.05	mg/kg	-	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	-	0.06	< 0.05
Endosulfan I	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	-	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	-	-	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	-	-	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	0.06	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	0.1	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	< 0.3	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	< 0.3	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	101	110
Tetrachloro-m-xylene (surr.)	1	%	-	-	89	106

Client Sample ID			A2KBH12(9.5M)	A2KBH12(10.0M)	[G01]A2KBH22(0.0-0.2M)	A2KBH22(0.5-0.7M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036941**	**S22-Jl0036942**	**S22-Jl0036943**	**S22-Jl0036944**
Date Sampled			**Jul 11, 2022**	**Jul 11, 2022**	**Jul 12, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	-	-	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	101	110
Tetrachloro-m-xylene (surr.)	1	%	-	-	89	106
Heavy Metals						
Arsenic	2	mg/kg	-	-	6.2	3.7
Cadmium	0.4	mg/kg	-	-	< 0.4	< 0.4
Chromium	5	mg/kg	-	-	< 5	< 5
Copper	5	mg/kg	-	-	11	< 5
Lead	5	mg/kg	-	-	43	< 5
Mercury	0.1	mg/kg	-	-	3.2	< 0.1
Nickel	5	mg/kg	-	-	< 5	< 5
Zinc	5	mg/kg	-	-	18	< 5
% Moisture	1	%	-	-	8.8	5.8
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.6	6.7	-	-
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	5.5	5.5	-	-
Reaction Ratings*[S05]	0	-	1.0	1.0	-	-

Client Sample ID			A2KBH22(0.5M)	A2KBH22(1.0M)	A2KBH22(1.5M)	A2KBH22(2.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036945**	**S22-Jl0036946**	**S22-Jl0036947**	**S22-Jl0036948**
Date Sampled			**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	6.2	5.7	5.6	5.8
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	3.7	3.3	3.2	3.1
Reaction Ratings*[S05]	0	-	3.0	2.0	1.0	1.0

Client Sample ID			A2KBH22(2.5M)	A2KBH22(3.0M)	A2KBH22(3.5M)	A2KBH22(4.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036949**	**S22-JI0036950**	**S22-JI0036951**	**S22-JI0036952**
Date Sampled			**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	5.4	5.5	5.7	5.5
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	3.7	4.6	4.1	4.3
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH22(4.5M)	A2KBH22(5.0M)	A2KBH22(5.5M)	A2KBH22(6.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036953**	**S22-JI0036954**	**S22-JI0036955**	**S22-JI0036956**
Date Sampled			**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	5.4	5.2	5.4	5.4
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	4.2	4.5	4.0	4.1
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH22(6.5M)	A2KBH22(7.0M)	A2KBH22(7.5M)	A2KBH22(8.0M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036957**	**S22-JI0036958**	**S22-JI0036959**	**S22-JI0036960**
Date Sampled			**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	5.3	5.5	5.5	5.8
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	4.5	4.4	4.3	4.6
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	1.0

Client Sample ID			A2KBH22(8.5M)	A2KBH22(9.0M)	A2KBH22(9.5M)	NSBH3(0.2-0.4M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036961**	**S22-JI0036962**	**S22-JI0036963**	**S22-JI0036964**
Date Sampled			**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**	**Jul 07, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	-	-	-	< 20
TRH C10-C14	20	mg/kg	-	-	-	< 20
TRH C15-C28	50	mg/kg	-	-	-	< 50
TRH C29-C36	50	mg/kg	-	-	-	< 50
TRH C10-C36 (Total)	50	mg/kg	-	-	-	< 50
Naphthalene[N02]	0.5	mg/kg	-	-	-	< 0.5
TRH C6-C10	20	mg/kg	-	-	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	-	-	-	< 20
TRH >C10-C16	50	mg/kg	-	-	-	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	-	-	-	< 50
TRH >C16-C34	100	mg/kg	-	-	-	< 100
TRH >C34-C40	100	mg/kg	-	-	-	< 100
TRH >C10-C40 (total)*	100	mg/kg	-	-	-	< 100

Client Sample ID			A2KBH22(8.5M)	A2KBH22(9.0M)	A2KBH22(9.5M)	NSBH3(0.2-0.4M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-JI0036961	S22-JI0036962	S22-JI0036963	S22-JI0036964
Date Sampled			Jul 12, 2022	Jul 12, 2022	Jul 12, 2022	Jul 07, 2022
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	-	-	< 0.1
Toluene	0.1	mg/kg	-	-	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	-	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	-	106
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	-	-	-	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	-	-	-	1.2
Acenaphthene	0.5	mg/kg	-	-	-	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	-	< 0.5
Anthracene	0.5	mg/kg	-	-	-	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	-	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	-	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	-	-	-	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	-	-	-	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Chrysene	0.5	mg/kg	-	-	-	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	-	-	-	< 0.5
Fluoranthene	0.5	mg/kg	-	-	-	< 0.5
Fluorene	0.5	mg/kg	-	-	-	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	-	< 0.5
Naphthalene	0.5	mg/kg	-	-	-	< 0.5
Phenanthrene	0.5	mg/kg	-	-	-	< 0.5
Pyrene	0.5	mg/kg	-	-	-	0.5
Total PAH*	0.5	mg/kg	-	-	-	0.5
2-Fluorobiphenyl (surr.)	1	%	-	-	-	93
p-Terphenyl-d14 (surr.)	1	%	-	-	-	100
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	-	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	-	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	-	< 0.05
a-HCH	0.05	mg/kg	-	-	-	< 0.05
Aldrin	0.05	mg/kg	-	-	-	< 0.05
b-HCH	0.05	mg/kg	-	-	-	< 0.05
d-HCH	0.05	mg/kg	-	-	-	< 0.05
Dieldrin	0.05	mg/kg	-	-	-	< 0.05
Endosulfan I	0.05	mg/kg	-	-	-	< 0.05
Endosulfan II	0.05	mg/kg	-	-	-	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	-	< 0.05
Endrin	0.05	mg/kg	-	-	-	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	-	< 0.05
Endrin ketone	0.05	mg/kg	-	-	-	< 0.05
g-HCH (Lindane)	0.05	mg/kg	-	-	-	< 0.05
Heptachlor	0.05	mg/kg	-	-	-	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	-	< 0.05

Client Sample ID			A2KBH22(8.5M)	A2KBH22(9.0M)	A2KBH22(9.5M)	NSBH3(0.2-0.4M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036961**	**S22-Jl0036962**	**S22-Jl0036963**	**S22-Jl0036964**
Date Sampled			**Jul 12, 2022**	**Jul 12, 2022**	**Jul 12, 2022**	**Jul 07, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Hexachlorobenzene	0.05	mg/kg	-	-	-	< 0.05
Methoxychlor	0.05	mg/kg	-	-	-	< 0.05
Toxaphene	0.5	mg/kg	-	-	-	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	-	-	-	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	-	-	-	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	114
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	103
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	-	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	-	< 0.1
Total PCB*	0.1	mg/kg	-	-	-	< 0.1
Dibutylchlorendate (surr.)	1	%	-	-	-	114
Tetrachloro-m-xylene (surr.)	1	%	-	-	-	103
Heavy Metals						
Arsenic	2	mg/kg	-	-	-	10
Cadmium	0.4	mg/kg	-	-	-	< 0.4
Chromium	5	mg/kg	-	-	-	32
Copper	5	mg/kg	-	-	-	27
Lead	5	mg/kg	-	-	-	34
Mercury	0.1	mg/kg	-	-	-	< 0.1
Nickel	5	mg/kg	-	-	-	35
Zinc	5	mg/kg	-	-	-	61
% Moisture	1	%	-	-	-	19
Acid Sulfate Soils Field pH Test						
pH-F (Field pH test)*	0.1	pH Units	5.8	5.6	5.6	-
pH-FOX (Field pH Peroxide test)*	0.1	pH Units	4.5	4.5	4.6	-
Reaction Ratings*[S05]	0	-	1.0	1.0	1.0	-

Client Sample ID			NSBH3(0.8-1.0M)	NSBH4(0.3-0.4M)	NSBH4(0.6-0.8M)	NSBH1(0.4-0.6M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036965**	**S22-Jl0036966**	**S22-Jl0036967**	**S22-Jl0036968**
Date Sampled			**Jul 07, 2022**	**Jul 07, 2022**	**Jul 07, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	84
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	130
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	214

Client Sample ID			NSBH3(0.8-1.0M)	NSBH4(0.3-0.4M)	NSBH4(0.6-0.8M)	NSBH1(0.4-0.6M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036965**	**S22-JI0036966**	**S22-JI0036967**	**S22-JI0036968**
Date Sampled			**Jul 07, 2022**	**Jul 07, 2022**	**Jul 07, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	180
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	110
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	290
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	92	62	56	118
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.9
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.8
2-Fluorobiphenyl (surr.)	1	%	76	81	88	79
p-Terphenyl-d14 (surr.)	1	%	93	88	95	89
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			NSBH3(0.8-1.0M)	NSBH4(0.3-0.4M)	NSBH4(0.6-0.8M)	NSBH1(0.4-0.6M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036965**	**S22-Jl0036966**	**S22-Jl0036967**	**S22-Jl0036968**
Date Sampled			**Jul 07, 2022**	**Jul 07, 2022**	**Jul 07, 2022**	**Jul 12, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	99	106	109	120
Tetrachloro-m-xylene (surr.)	1	%	87	91	97	86
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	99	106	109	120
Tetrachloro-m-xylene (surr.)	1	%	87	91	97	86
Heavy Metals						
Arsenic	2	mg/kg	7.5	7.0	9.2	46
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	19	29	32	13
Copper	5	mg/kg	45	24	26	70
Lead	5	mg/kg	35	25	24	66
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	34	18	17	20
Zinc	5	mg/kg	87	35	34	62
% Moisture	1	%	18	21	22	14

Client Sample ID			NSBH1(1.0-1.2M)	W2SBH8(0.4-0.6M)	W2SBH8(0.8-1.0M)	[G01]W2SBH9(0.5-0.7M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-JI0036969	S22-JI0036970	S22-JI0036971	S22-JI0036972
Date Sampled			Jul 12, 2022	Jul 11, 2022	Jul 11, 2022	Jul 13, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	31	< 20	< 100
TRH C15-C28	50	mg/kg	< 50	330	56	< 250
TRH C29-C36	50	mg/kg	< 50	140	< 50	< 250
TRH C10-C36 (Total)	50	mg/kg	< 50	501	56	< 250
Naphthalene[N02]	0.5	mg/kg	< 0.5	16	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	57	< 50	< 250
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 250
TRH >C16-C34	100	mg/kg	< 100	410	< 100	< 500
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 500
TRH >C10-C40 (total)*	100	mg/kg	< 100	467	< 100	< 500
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	50	93	58	103
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	10.0	1.1	5.3
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	10.0	1.4	5.3
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	10.0	1.7	5.3
Acenaphthene	0.5	mg/kg	< 0.5	1.3	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	2.1	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	4.3	0.6	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	6.7	0.9	1.6
Benzo(a)pyrene	0.5	mg/kg	< 0.5	6.7	0.9	3.3
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	4.0	0.5	2.7
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	4.0	< 0.5	4.3
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	5.8	0.7	2.3
Chrysene	0.5	mg/kg	< 0.5	7.3	0.9	2.0
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	1.2	< 0.5	1.0
Fluoranthene	0.5	mg/kg	< 0.5	17	2.2	2.8
Fluorene	0.5	mg/kg	< 0.5	6.4	0.8	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	3.2	< 0.5	2.7
Naphthalene	0.5	mg/kg	< 0.5	9.9	0.7	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	22	2.3	1.1
Pyrene	0.5	mg/kg	< 0.5	18	2.5	3.1
Total PAH*	0.5	mg/kg	< 0.5	120	13	27
2-Fluorobiphenyl (surr.)	1	%	85	88	80	90
p-Terphenyl-d14 (surr.)	1	%	90	91	79	92
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			NSBH1(1.0-1.2M)	W2SBH8(0.4-0.6M)	W2SBH8(0.8-1.0M)	[G01]W2SBH9(0.5-0.7M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036969**	**S22-Jl0036970**	**S22-Jl0036971**	**S22-Jl0036972**
Date Sampled			**Jul 12, 2022**	**Jul 11, 2022**	**Jul 11, 2022**	**Jul 13, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	134	115	117	125
Tetrachloro-m-xylene (surr.)	1	%	95	96	87	99
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	134	115	117	125
Tetrachloro-m-xylene (surr.)	1	%	95	96	87	99
Heavy Metals						
Arsenic	2	mg/kg	5.9	4.5	5.5	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	26	19	20	< 5
Copper	5	mg/kg	18	41	16	14
Lead	5	mg/kg	27	37	22	8.0
Mercury	0.1	mg/kg	< 0.1	0.1	< 0.1	< 0.1
Nickel	5	mg/kg	11	5.1	< 5	< 5
Zinc	5	mg/kg	21	23	< 5	6.2
% Moisture	1	%	18	14	13	21

Client Sample ID			G01 W2SBH9(0.8-1.0M)	W2SBH13(0.8-1.0M)	W2SBH13(1.2-1.4M)	G01 W2SBH14(0.2-0.4M)
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S22-JI0036973	S22-JI0036974	S22-JI0036975	S22-JI0036976
Date Sampled			Jul 13, 2022	Jul 13, 2022	Jul 13, 2022	Jul 13, 2022
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 100	< 20	< 20	< 200
TRH C15-C28	50	mg/kg	< 250	< 50	< 50	< 500
TRH C29-C36	50	mg/kg	< 250	< 50	< 50	< 500
TRH C10-C36 (Total)	50	mg/kg	< 250	< 50	< 50	< 500
Naphthalene N02	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 250	< 50	< 50	< 500
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 250	< 50	< 50	< 500
TRH >C16-C34	100	mg/kg	< 500	< 100	< 100	< 1000
TRH >C34-C40	100	mg/kg	< 500	< 100	< 100	< 1000
TRH >C10-C40 (total)*	100	mg/kg	< 500	< 100	< 100	< 1000
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	1.0
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.6
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	0.4
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	0.6
4-Bromofluorobenzene (surr.)	1	%	98	60	68	107
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	4.4	< 0.5	< 0.5	41
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	4.4	0.6	0.6	41
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	4.4	1.2	1.2	41
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.7
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.0
Benz(a)anthracene	0.5	mg/kg	1.2	< 0.5	< 0.5	16
Benzo(a)pyrene	0.5	mg/kg	2.9	< 0.5	< 0.5	27
Benzo(b&j)fluoranthene N07	0.5	mg/kg	2.0	< 0.5	< 0.5	19
Benzo(g.h.i)perylene	0.5	mg/kg	3.8	< 0.5	< 0.5	20
Benzo(k)fluoranthene	0.5	mg/kg	2.4	< 0.5	< 0.5	24
Chrysene	0.5	mg/kg	1.7	< 0.5	< 0.5	20
Dibenz(a.h)anthracene	0.5	mg/kg	0.7	< 0.5	< 0.5	6.1
Fluoranthene	0.5	mg/kg	1.9	< 0.5	< 0.5	22
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	2.3	< 0.5	< 0.5	17
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.8
Phenanthrene	0.5	mg/kg	0.9	< 0.5	< 0.5	7.1
Pyrene	0.5	mg/kg	2.7	< 0.5	< 0.5	28
Total PAH*	0.5	mg/kg	23	< 0.5	< 0.5	210
2-Fluorobiphenyl (surr.)	1	%	86	93	83	101
p-Terphenyl-d14 (surr.)	1	%	90	93	87	107
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5

Client Sample ID			G01 W2SBH9(0.8-1.0M)	W2SBH13(0.8-1.0M)	W2SBH13(1.2-1.4M)	G01 W2SBH14(0.2-0.4M)
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Jl0036973**	**S22-Jl0036974**	**S22-Jl0036975**	**S22-Jl0036976**
Date Sampled			**Jul 13, 2022**	**Jul 13, 2022**	**Jul 13, 2022**	**Jul 13, 2022**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	103	144	115	66
Tetrachloro-m-xylene (surr.)	1	%	95	104	92	99
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	103	144	115	66
Tetrachloro-m-xylene (surr.)	1	%	95	104	92	99
Heavy Metals						
Arsenic	2	mg/kg	< 2	3.4	3.9	6.2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	11	11	9.8
Copper	5	mg/kg	41	5.9	10	88
Lead	5	mg/kg	9.6	15	26	1200
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	3.6
Nickel	5	mg/kg	< 5	< 5	< 5	10
Zinc	5	mg/kg	13	< 5	11	340
% Moisture	1	%	16	11	12	15

Client Sample ID			G01 W2SBH14(0.8-1.0M)	G01 W2SBH15(0.3-0.5M)	W2SBH15(0.5-0.7M)
Sample Matrix			Soil	Soil	Soil
Eurofins Sample No.			S22-JI0036977	S22-JI0036978	S22-JI0036979
Date Sampled			Jul 13, 2022	Jul 13, 2022	Jul 13, 2022
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 100	< 100	< 20
TRH C15-C28	50	mg/kg	< 250	< 250	< 50
TRH C29-C36	50	mg/kg	< 250	< 250	< 50
TRH C10-C36 (Total)	50	mg/kg	< 250	< 250	< 50
Naphthalene N02	0.5	mg/kg	< 0.5	13	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) N04	20	mg/kg	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 250	< 250	< 50
TRH >C10-C16 less Naphthalene (F2) N01	50	mg/kg	< 250	< 250	< 50
TRH >C16-C34	100	mg/kg	< 500	< 500	< 100
TRH >C34-C40	100	mg/kg	< 500	< 500	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 500	< 500	< 100
BTEX					
Benzene	0.1	mg/kg	0.9	< 0.1	< 0.1
Toluene	0.1	mg/kg	0.4	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	0.3	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	0.4	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	98	107	98
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	4.9	13	1.1
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	4.9	13	1.4
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	4.9	13	1.7
Acenaphthene	0.5	mg/kg	< 0.5	2.3	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	1.1	< 0.5
Anthracene	0.5	mg/kg	< 0.5	5.2	0.5
Benz(a)anthracene	0.5	mg/kg	1.6	8.8	0.9
Benzo(a)pyrene	0.5	mg/kg	3.3	8.6	0.9
Benzo(b&j)fluoranthene N07	0.5	mg/kg	2.4	5.7	0.6
Benzo(g.h.i)perylene	0.5	mg/kg	2.8	4.2	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	2.8	7.7	0.8
Chrysene	0.5	mg/kg	2.0	9.8	1.0
Dibenz(a.h)anthracene	0.5	mg/kg	0.7	1.5	< 0.5
Fluoranthene	0.5	mg/kg	1.9	23	2.2
Fluorene	0.5	mg/kg	< 0.5	5.2	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	2.2	3.8	< 0.5
Naphthalene	0.5	mg/kg	1.3	14	1.2
Phenanthrene	0.5	mg/kg	0.8	21	2.0
Pyrene	0.5	mg/kg	2.6	23	2.3
Total PAH*	0.5	mg/kg	24	140	12
2-Fluorobiphenyl (surr.)	1	%	86	94	83
p-Terphenyl-d14 (surr.)	1	%	89	101	85
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05

Client Sample ID			G01 W2SBH14(0.8-1.0M)	G01 W2SBH15(0.3-0.5M)	W2SBH15(0.5-0.7M)
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-JI0036977**	**S22-JI0036978**	**S22-JI0036979**
Date Sampled			**Jul 13, 2022**	**Jul 13, 2022**	**Jul 13, 2022**
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	108	122	122
Tetrachloro-m-xylene (surr.)	1	%	89	101	92
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	108	122	122
Tetrachloro-m-xylene (surr.)	1	%	89	101	92
Heavy Metals					
Arsenic	2	mg/kg	< 2	3.0	3.1
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	< 5	9.8	16
Copper	5	mg/kg	13	230	< 5
Lead	5	mg/kg	40	26	18
Mercury	0.1	mg/kg	0.1	< 0.1	< 0.1
Nickel	5	mg/kg	< 5	5.9	< 5
Zinc	5	mg/kg	31	28	< 5
% Moisture	1	%	28	12	15

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Jul 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Jul 20, 2022	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Jul 20, 2022	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Jul 20, 2022	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Jul 20, 2022	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Polychlorinated Biphenyls	Sydney	Jul 20, 2022	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Metals M8	Sydney	Jul 20, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jul 19, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			
Acid Sulfate Soils Field pH Test	Sydney	Jul 20, 2022	7 Days
- Method: LTM-GEN-7060 Determination of field pH (pHF) and field pH peroxide (pHFOX) tests			

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Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 906875
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jul 18, 2022 5:55 PM
Due: Jul 21, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	A2KBH11(0.0-0.2M)	Jul 11, 2022		Soil	S22-Jl0036905			X	X
2	A2KBH11(0.3-0.5M)	Jul 11, 2022		Soil	S22-Jl0036906			X	X
3	A2KBH11(0.5 M)	Jul 11, 2022		Soil	S22-Jl0036907		X		
4	A2KBH11(1.0 M)	Jul 11, 2022		Soil	S22-Jl0036908		X		
5	A2KBH11(1.5 M)	Jul 11, 2022		Soil	S22-Jl0036909		X		
6	A2KBH11(2.0 M)	Jul 11, 2022		Soil	S22-Jl0036910		X		
7	A2KBH11(2.5 M)	Jul 11, 2022		Soil	S22-Jl0036911		X		
8	A2KBH11(3.0 M)	Jul 11, 2022		Soil	S22-Jl0036912		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
9	A2KBH11(3.5 M)	Jul 11, 2022		Soil	S22-Jl0036913		X		
10	A2KBH11(4.0 M)	Jul 11, 2022		Soil	S22-Jl0036914		X		
11	A2KBH11(4.5 M)	Jul 11, 2022		Soil	S22-Jl0036915		X		
12	A2KBH11(5.0 M)	Jul 11, 2022		Soil	S22-Jl0036916		X		
13	A2KBH11(5.5 M)	Jul 11, 2022		Soil	S22-Jl0036917		X		
14	A2KBH11(6.0 M)	Jul 11, 2022		Soil	S22-Jl0036918		X		
15	A2KBH11(6.5 M)	Jul 11, 2022		Soil	S22-Jl0036919		X		
16	A2KBH11(7.0 M)	Jul 11, 2022		Soil	S22-Jl0036920		X		
17	A2KBH12(0.0-0.2M)	Jul 11, 2022		Soil	S22-Jl0036921			X	X
18	A2KBH12(0.5-	Jul 11, 2022		Soil	S22-Jl0036922			X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
18	A2KBH12(0.5-0.7M)	Jul 11, 2022		Soil	S22-Jl0036922				
19	A2KBH12(0.5 M)	Jul 11, 2022		Soil	S22-Jl0036923		X		
20	A2KBH12(1.0 M)	Jul 11, 2022		Soil	S22-Jl0036924		X		
21	A2KBH12(1.5 M)	Jul 11, 2022		Soil	S22-Jl0036925		X		
22	A2KBH12(2.0 M)	Jul 11, 2022		Soil	S22-Jl0036926		X		
23	A2KBH12(2.5 M)	Jul 11, 2022		Soil	S22-Jl0036927		X		
24	A2KBH12(3.0 M)	Jul 11, 2022		Soil	S22-Jl0036928		X		
25	A2KBH12(3.5 M)	Jul 11, 2022		Soil	S22-Jl0036929		X		
26	A2KBH12(4.0 M)	Jul 11, 2022		Soil	S22-Jl0036930		X		
27	A2KBH12(4.5	Jul 11, 2022		Soil	S22-Jl0036931		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
	M)								
28	A2KBH12(5.0 M)	Jul 11, 2022		Soil	S22-Jl0036932		X		
29	A2KBH12(5.5 M)	Jul 11, 2022		Soil	S22-Jl0036933		X		
30	A2KBH12(6.0 M)	Jul 11, 2022		Soil	S22-Jl0036934		X		
31	A2KBH12(6.5 M)	Jul 11, 2022		Soil	S22-Jl0036935		X		
32	A2KBH12(7.0 M)	Jul 11, 2022		Soil	S22-Jl0036936		X		
33	A2KBH12(7.5 M)	Jul 11, 2022		Soil	S22-Jl0036937		X		
34	A2KBH12(8.0 M)	Jul 11, 2022		Soil	S22-Jl0036938		X		
35	A2KBH12(8.5 M)	Jul 11, 2022		Soil	S22-Jl0036939		X		
36	A2KBH12(9.0 M)	Jul 11, 2022		Soil	S22-Jl0036940		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
37	A2KBH12(9.5 M)	Jul 11, 2022		Soil	S22-Jl0036941		X		
38	A2KBH12(10.0 M)	Jul 11, 2022		Soil	S22-Jl0036942		X		
39	A2KBH22(0.0-0.2M)	Jul 12, 2022		Soil	S22-Jl0036943			X	X
40	A2KBH22(0.5-0.7M)	Jul 12, 2022		Soil	S22-Jl0036944			X	X
41	A2KBH22(0.5 M)	Jul 12, 2022		Soil	S22-Jl0036945		X		
42	A2KBH22(1.0 M)	Jul 12, 2022		Soil	S22-Jl0036946		X		
43	A2KBH22(1.5 M)	Jul 12, 2022		Soil	S22-Jl0036947		X		
44	A2KBH22(2.0 M)	Jul 12, 2022		Soil	S22-Jl0036948		X		
45	A2KBH22(2.5 M)	Jul 12, 2022		Soil	S22-Jl0036949		X		
46	A2KBH22(3.0	Jul 12, 2022		Soil	S22-Jl0036950		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
	M)								
47	A2KBH22(3.5 M)	Jul 12, 2022		Soil	S22-Jl0036951		X		
48	A2KBH22(4.0 M)	Jul 12, 2022		Soil	S22-Jl0036952		X		
49	A2KBH22(4.5 M)	Jul 12, 2022		Soil	S22-Jl0036953		X		
50	A2KBH22(5.0 M)	Jul 12, 2022		Soil	S22-Jl0036954		X		
51	A2KBH22(5.5 M)	Jul 12, 2022		Soil	S22-Jl0036955		X		
52	A2KBH22(6.0 M)	Jul 12, 2022		Soil	S22-Jl0036956		X		
53	A2KBH22(6.5 M)	Jul 12, 2022		Soil	S22-Jl0036957		X		
54	A2KBH22(7.0 M)	Jul 12, 2022		Soil	S22-Jl0036958		X		
55	A2KBH22(7.5 M)	Jul 12, 2022		Soil	S22-Jl0036959		X		

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Order No.: 14777
Report #: 906875
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jul 18, 2022 5:55 PM
Due: Jul 21, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
56	A2KBH22(8.0 M)	Jul 12, 2022		Soil	S22-Jl0036960		X		
57	A2KBH22(8.5 M)	Jul 12, 2022		Soil	S22-Jl0036961		X		
58	A2KBH22(9.0 M)	Jul 12, 2022		Soil	S22-Jl0036962		X		
59	A2KBH22(9.5 M)	Jul 12, 2022		Soil	S22-Jl0036963		X		
60	NSBH3(0.2-0.4M)	Jul 07, 2022		Soil	S22-Jl0036964			X	X
61	NSBH3(0.8-1.0M)	Jul 07, 2022		Soil	S22-Jl0036965			X	X
62	NSBH4(0.3-0.4M)	Jul 07, 2022		Soil	S22-Jl0036966			X	X
63	NSBH4(0.6-0.8M)	Jul 07, 2022		Soil	S22-Jl0036967			X	X
64	NSBH1(0.4-0.6M)	Jul 12, 2022		Soil	S22-Jl0036968			X	X
65	NSBH1(1.0-	Jul 12, 2022		Soil	S22-Jl0036969			X	X

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Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

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Contact Name: Anurag Sobti

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
	1.2M)								
66	W2SBH8(0.4-0.6M)	Jul 11, 2022		Soil	S22-Jl0036970			X	X
67	W2SBH8(0.8-1.0M)	Jul 11, 2022		Soil	S22-Jl0036971			X	X
68	W2SBH9(0.5-0.7M)	Jul 13, 2022		Soil	S22-Jl0036972			X	X
69	W2SBH9(0.8-1.0M)	Jul 13, 2022		Soil	S22-Jl0036973			X	X
70	W2SBH13(0.8-1.0M)	Jul 13, 2022		Soil	S22-Jl0036974			X	X
71	W2SBH13(1.2-1.4M)	Jul 13, 2022		Soil	S22-Jl0036975			X	X
72	W2SBH14(0.2-0.4M)	Jul 13, 2022		Soil	S22-Jl0036976			X	X
73	W2SBH14(0.8-1.0M)	Jul 13, 2022		Soil	S22-Jl0036977			X	X
74	W2SBH15(0.3-0.5M)	Jul 13, 2022		Soil	S22-Jl0036978			X	X

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Project Name: AUSGRID CABLE PROJECT
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Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
75	W2SBH15(0.5-0.7M)	Jul 13, 2022		Soil	S22-Jl0036979			X	X
76	A2KBH11(1.2-1.5M)	Jul 11, 2022		Soil	S22-Jl0036980	X			
77	A2KBH12(0.9-1.2M)	Jul 11, 2022		Soil	S22-Jl0036981	X			
78	NSBH3(1.2-1.5M)	Jul 07, 2022		Soil	S22-Jl0036982	X			
79	NSBH4(1.0-1.3M)	Jul 07, 2022		Soil	S22-Jl0036983	X			
80	NSBH1(2.0-2.2M)	Jul 12, 2022		Soil	S22-Jl0036984	X			
81	W2SBH8(1.5-1.7M)	Jul 11, 2022		Soil	S22-Jl0036985	X			
82	W2SBH9(1.2-1.4M)	Jul 13, 2022		Soil	S22-Jl0036986	X			
83	W2SBH13(1.5-1.7M)	Jul 13, 2022		Soil	S22-Jl0036987	X			
84	W2SBH14(1.5-	Jul 13, 2022		Soil	S22-Jl0036988	X			

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jul 18, 2022 5:55 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	906875	**Due:**	Jul 21, 2022
		Phone:	1800 288 188	**Priority:**	3 Day
		Fax:	02 9675 1888	**Contact Name:**	Anurag Sobti
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X
1.7M)				
Test Counts	9	53	22	22

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Total PAH*	mg/kg	-			0.5	N/A	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	102			70-130	Pass	
TRH C10-C14	%	111			70-130	Pass	
Naphthalene	%	125			70-130	Pass	
TRH C6-C10	%	103			70-130	Pass	
TRH >C10-C16	%	106			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	111			70-130	Pass	
Toluene	%	112			70-130	Pass	
Ethylbenzene	%	114			70-130	Pass	
m&p-Xylenes	%	118			70-130	Pass	
o-Xylene	%	126			70-130	Pass	
Xylenes - Total*	%	120			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	91			70-130	Pass	
Acenaphthylene	%	89			70-130	Pass	
Anthracene	%	90			70-130	Pass	
Benz(a)anthracene	%	70			70-130	Pass	
Benzo(a)pyrene	%	123			70-130	Pass	
Benzo(b&j)fluoranthene	%	91			70-130	Pass	
Benzo(g.h.i)perylene	%	89			70-130	Pass	
Benzo(k)fluoranthene	%	95			70-130	Pass	

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene			%	88			70-130	Pass	
Dibenz(a.h)anthracene			%	89			70-130	Pass	
Fluoranthene			%	102			70-130	Pass	
Fluorene			%	86			70-130	Pass	
Indeno(1.2.3-cd)pyrene			%	76			70-130	Pass	
Naphthalene			%	94			70-130	Pass	
Phenanthrene			%	73			70-130	Pass	
Pyrene			%	100			70-130	Pass	
LCS - % Recovery									
Organochlorine Pesticides									
Chlordanes - Total			%	107			70-130	Pass	
4.4'-DDD			%	90			70-130	Pass	
4.4'-DDE			%	92			70-130	Pass	
4.4'-DDT			%	102			70-130	Pass	
a-HCH			%	105			70-130	Pass	
Aldrin			%	84			70-130	Pass	
b-HCH			%	90			70-130	Pass	
d-HCH			%	114			70-130	Pass	
Dieldrin			%	98			70-130	Pass	
Endosulfan I			%	129			70-130	Pass	
Endosulfan II			%	103			70-130	Pass	
Endosulfan sulphate			%	89			70-130	Pass	
Endrin			%	112			70-130	Pass	
Endrin aldehyde			%	75			70-130	Pass	
Endrin ketone			%	109			70-130	Pass	
g-HCH (Lindane)			%	100			70-130	Pass	
Heptachlor			%	104			70-130	Pass	
Heptachlor epoxide			%	100			70-130	Pass	
Hexachlorobenzene			%	94			70-130	Pass	
Methoxychlor			%	86			70-130	Pass	
LCS - % Recovery									
Polychlorinated Biphenyls									
Aroclor-1016			%	78			70-130	Pass	
Aroclor-1221			%	102			70-130	Pass	
Aroclor-1254			%	84			70-130	Pass	
Aroclor-1260			%	73			70-130	Pass	
LCS - % Recovery									
Heavy Metals									
Arsenic			%	105			80-120	Pass	
Cadmium			%	107			80-120	Pass	
Chromium			%	106			80-120	Pass	
Copper			%	104			80-120	Pass	
Lead			%	99			80-120	Pass	
Mercury			%	105			80-120	Pass	
Nickel			%	109			80-120	Pass	
Zinc			%	109			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S22-Jl0040078	NCP	%	74			70-130	Pass	
TRH C10-C14	S22-Jl0041257	NCP	%	103			70-130	Pass	
Naphthalene	S22-Jl0040078	NCP	%	83			70-130	Pass	
TRH C6-C10	S22-Jl0040078	NCP	%	74			70-130	Pass	
TRH >C10-C16	S22-Jl0041257	NCP	%	99			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
BTEX				Result 1					
Benzene	S22-Jl0040078	NCP	%	81			70-130	Pass	
Toluene	S22-Jl0040078	NCP	%	76			70-130	Pass	
Ethylbenzene	S22-Jl0040078	NCP	%	73			70-130	Pass	
m&p-Xylenes	S22-Jl0040078	NCP	%	78			70-130	Pass	
o-Xylene	S22-Jl0040078	NCP	%	85			70-130	Pass	
Xylenes - Total*	S22-Jl0040078	NCP	%	81			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Endrin ketone	S22-Jl0011280	NCP	%	82			70-130	Pass	
Hexachlorobenzene	S22-Jl0011280	NCP	%	74			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Jl0036906	CP	%	91			70-130	Pass	
Acenaphthylene	S22-Jl0036906	CP	%	94			70-130	Pass	
Anthracene	S22-Jl0036906	CP	%	106			70-130	Pass	
Benz(a)anthracene	S22-Jl0036906	CP	%	79			70-130	Pass	
Benzo(a)pyrene	S22-Jl0036906	CP	%	106			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Jl0036906	CP	%	93			70-130	Pass	
Benzo(k)fluoranthene	S22-Jl0036906	CP	%	116			70-130	Pass	
Chrysene	S22-Jl0036906	CP	%	94			70-130	Pass	
Fluoranthene	S22-Jl0036906	CP	%	112			70-130	Pass	
Fluorene	S22-Jl0036906	CP	%	88			70-130	Pass	
Naphthalene	S22-Jl0036906	CP	%	91			70-130	Pass	
Phenanthrene	S22-Jl0036906	CP	%	71			70-130	Pass	
Pyrene	S22-Jl0036906	CP	%	109			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	R22-Jl0027403	NCP	%	78			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Jl0036969	CP	%	105			70-130	Pass	
Acenaphthylene	S22-Jl0036969	CP	%	84			70-130	Pass	
Anthracene	S22-Jl0036969	CP	%	92			70-130	Pass	
Benz(a)anthracene	S22-Jl0036969	CP	%	88			70-130	Pass	
Benzo(a)pyrene	S22-Jl0036969	CP	%	88			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Jl0036969	CP	%	84			70-130	Pass	
Benzo(g.h.i)perylene	S22-Jl0036969	CP	%	95			70-130	Pass	
Benzo(k)fluoranthene	S22-Jl0036969	CP	%	90			70-130	Pass	
Chrysene	S22-Jl0036969	CP	%	92			70-130	Pass	
Dibenz(a.h)anthracene	S22-Jl0036969	CP	%	79			70-130	Pass	
Fluoranthene	S22-Jl0036969	CP	%	91			70-130	Pass	
Fluorene	S22-Jl0036969	CP	%	106			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jl0036969	CP	%	80			70-130	Pass	
Naphthalene	S22-Jl0036969	CP	%	89			70-130	Pass	
Phenanthrene	S22-Jl0036969	CP	%	105			70-130	Pass	
Pyrene	S22-Jl0036969	CP	%	92			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S22-Jl0036969	CP	%	91			70-130	Pass	
4.4'-DDE	S22-Jl0036969	CP	%	81			70-130	Pass	
4.4'-DDT	S22-Jl0036969	CP	%	81			70-130	Pass	
a-HCH	S22-Jl0036969	CP	%	93			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-HCH	S22-Jl0036969	CP	%	107			70-130	Pass	
d-HCH	S22-Jl0036969	CP	%	103			70-130	Pass	
Dieldrin	S22-Jl0036969	CP	%	84			70-130	Pass	
Endosulfan I	S22-Jl0036969	CP	%	104			70-130	Pass	
Endosulfan II	S22-Jl0036969	CP	%	88			70-130	Pass	
Endosulfan sulphate	S22-Jl0036969	CP	%	77			70-130	Pass	
Endrin	S22-Jl0036969	CP	%	109			70-130	Pass	
Endrin aldehyde	S22-Jl0036969	CP	%	76			70-130	Pass	
g-HCH (Lindane)	S22-Jl0036969	CP	%	103			70-130	Pass	
Heptachlor	S22-Jl0036969	CP	%	90			70-130	Pass	
Heptachlor epoxide	S22-Jl0036969	CP	%	70			70-130	Pass	
Methoxychlor	S22-Jl0036969	CP	%	93			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S22-Jl0036975	CP	%	85			75-125	Pass	
Cadmium	S22-Jl0036975	CP	%	84			75-125	Pass	
Chromium	S22-Jl0036975	CP	%	85			75-125	Pass	
Copper	S22-Jl0036975	CP	%	87			75-125	Pass	
Lead	S22-Jl0036975	CP	%	92			75-125	Pass	
Mercury	S22-Jl0036975	CP	%	90			75-125	Pass	
Nickel	S22-Jl0036975	CP	%	84			75-125	Pass	
Zinc	S22-Jl0036975	CP	%	93			75-125	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S22-Jl0036979	CP	%	118			70-130	Pass	
Acenaphthylene	S22-Jl0036979	CP	%	91			70-130	Pass	
Anthracene	S22-Jl0036979	CP	%	109			70-130	Pass	
Benz(a)anthracene	S22-Jl0036979	CP	%	107			70-130	Pass	
Benzo(a)pyrene	S22-Jl0036979	CP	%	103			70-130	Pass	
Benzo(b&j)fluoranthene	S22-Jl0036979	CP	%	106			70-130	Pass	
Benzo(g.h.i)perylene	S22-Jl0036979	CP	%	93			70-130	Pass	
Benzo(k)fluoranthene	S22-Jl0036979	CP	%	109			70-130	Pass	
Chrysene	S22-Jl0036979	CP	%	108			70-130	Pass	
Dibenz(a.h)anthracene	S22-Jl0036979	CP	%	87			70-130	Pass	
Fluoranthene	S22-Jl0036979	CP	%	130			70-130	Pass	
Fluorene	S22-Jl0036979	CP	%	108			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jl0036979	CP	%	87			70-130	Pass	
Naphthalene	S22-Jl0036979	CP	%	111			70-130	Pass	
Pyrene	S22-Jl0036979	CP	%	121			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	S22-Jl0036979	CP	%	87			70-130	Pass	
4.4'-DDE	S22-Jl0036979	CP	%	78			70-130	Pass	
4.4'-DDT	S22-Jl0036979	CP	%	86			70-130	Pass	
a-HCH	S22-Jl0036979	CP	%	91			70-130	Pass	
Aldrin	S22-Jl0036979	CP	%	77			70-130	Pass	
b-HCH	S22-Jl0036979	CP	%	104			70-130	Pass	
d-HCH	S22-Jl0036979	CP	%	101			70-130	Pass	
Dieldrin	S22-Jl0036979	CP	%	88			70-130	Pass	
Endosulfan I	S22-Jl0036979	CP	%	105			70-130	Pass	
Endosulfan II	S22-Jl0036979	CP	%	93			70-130	Pass	
Endosulfan sulphate	S22-Jl0036979	CP	%	75			70-130	Pass	
Endrin	S22-Jl0036979	CP	%	103			70-130	Pass	
g-HCH (Lindane)	S22-Jl0036979	CP	%	102			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Heptachlor	S22-Jl0036979	CP	%	83			70-130	Pass	
Methoxychlor	S22-Jl0036979	CP	%	99			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1221	S22-Jl0036979	CP	%	117			70-130	Pass	
Aroclor-1254	S22-Jl0036979	CP	%	85			70-130	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jl0036907	CP	pH Units	7.2	7.1	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jl0036907	CP	pH Units	5.5	5.3	pass	0%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jl0036917	CP	pH Units	6.9	6.9	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jl0036917	CP	pH Units	5.8	5.8	pass	0%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jl0036939	CP	pH Units	7.4	7.4	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jl0036939	CP	pH Units	5.9	6.0	pass	0%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jl0036951	CP	pH Units	5.7	5.6	7.0	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jl0036951	CP	pH Units	4.1	4.1	pass	0%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jl0036960	CP	pH Units	5.8	5.8	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jl0036960	CP	pH Units	4.6	4.6	pass	0%	Pass	
Duplicate									
Acid Sulfate Soils Field pH Test				Result 1	Result 2	RPD			
pH-F (Field pH test)*	S22-Jl0036961	CP	pH Units	5.8	5.7	pass	20%	Pass	
pH-FOX (Field pH Peroxide test)*	S22-Jl0036961	CP	pH Units	4.5	4.5	pass	0%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Jl0036964	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Naphthalene	S22-Jl0036964	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Jl0036964	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Jl0036964	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Jl0036964	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Jl0036964	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Jl0036964	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Jl0036964	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Jl0036964	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jl0036964	CP	mg/kg	10	9.9	3.0	30%	Pass	
Cadmium	S22-Jl0036964	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jl0036964	CP	mg/kg	32	35	9.0	30%	Pass	
Copper	S22-Jl0036964	CP	mg/kg	27	28	6.2	30%	Pass	
Lead	S22-Jl0036964	CP	mg/kg	34	31	9.3	30%	Pass	
Mercury	S22-Jl0036964	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jl0036964	CP	mg/kg	35	31	10	30%	Pass	
Zinc	S22-Jl0036964	CP	mg/kg	61	57	7.5	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jl0036964	CP	%	19	18	3.9	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S22-Jl0036968	CP	mg/kg	0.5	< 0.5	19	30%	Pass	
Benzo(b&j)fluoranthene	S22-Jl0036968	CP	mg/kg	0.5	< 0.5	24	30%	Pass	
Benzo(g.h.i)perylene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S22-Jl0036968	CP	mg/kg	0.5	< 0.5	31	30%	Fail	Q15
Dibenz(a.h)anthracene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S22-Jl0036968	CP	mg/kg	0.6	0.6	7.2	30%	Pass	
Fluorene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S22-Jl0036968	CP	mg/kg	0.7	0.6	15	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S22-Jl0036968	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	S22-Jl0036968	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1221	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1232	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1242	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1248	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1254	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Aroclor-1260	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Total PCB*	S22-Jl0036968	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S22-Jl0036974	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S22-Jl0036974	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S22-Jl0036974	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S22-Jl0036974	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Naphthalene	S22-Jl0036974	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S22-Jl0036974	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S22-Jl0036974	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S22-Jl0036974	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S22-Jl0036974	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S22-Jl0036974	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S22-Jl0036974	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S22-Jl0036974	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S22-Jl0036974	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S22-Jl0036974	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S22-Jl0036974	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S22-Jl0036974	CP	mg/kg	3.4	2.5	31	30%	Fail	Q15
Cadmium	S22-Jl0036974	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S22-Jl0036974	CP	mg/kg	11	11	<1	30%	Pass	
Copper	S22-Jl0036974	CP	mg/kg	5.9	5.5	7.8	30%	Pass	
Lead	S22-Jl0036974	CP	mg/kg	15	12	26	30%	Pass	
Mercury	S22-Jl0036974	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S22-Jl0036974	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S22-Jl0036974	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Jl0036974	CP	%	11	12	1.7	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
S05	Field Screen uses the following fizz rating to classify the rate the samples reacted to the peroxide: 1.0; No reaction to slight. 2.0; Moderate reaction. 3.0; Strong reaction with persistent froth. 4.0; Extreme reaction.

Authorised by:

Andrew Black	Analytical Services Manager
Chamath JHM Annakkage	Senior Analyst-Asbestos
Charl Du Preez	Senior Analyst-Organic
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic
Roopesh Rangarajan	Senior Analyst-Volatile

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Eurofins shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

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Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention:	Anurag Sobti
Report	906875-AID
Project Name	AUSGRID CABLE PROJECT
Project ID	14777
Received Date	Jul 18, 2022
Date Reported	Jul 22, 2022

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name AUSGRID CABLE PROJECT
Project ID 14777
Date Sampled Jul 07, 2022 to Jul 13, 2022
Report 906875-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
A2KBH11(0.0-0.2M)	22-Jl0036905	Jul 11, 2022	Approximate Sample 218g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH11(0.3-0.5M)	22-Jl0036906	Jul 11, 2022	Approximate Sample 286g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH12(0.0-0.2M)	22-Jl0036921	Jul 11, 2022	Approximate Sample 257g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH12(0.5-0.7M)	22-Jl0036922	Jul 11, 2022	Approximate Sample 281g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH22(0.0-0.2M)	22-Jl0036943	Jul 12, 2022	Approximate Sample 291g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
A2KBH22(0.5-0.7M)	22-Jl0036944	Jul 12, 2022	Approximate Sample 405g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
NSBH3(0.2-0.4M)	22-Jl0036964	Jul 07, 2022	Approximate Sample 431g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
NSBH3(0.8-1.0M)	22-Jl0036965	Jul 07, 2022	Approximate Sample 226g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
NSBH4(0.3-0.4M)	22-Jl0036966	Jul 07, 2022	Approximate Sample 441g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
NSBH4(0.6-0.8M)	22-Jl0036967	Jul 07, 2022	Approximate Sample 268g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
NSBH1(0.4-0.6M)	22-Jl0036968	Jul 12, 2022	Approximate Sample 431g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
NSBH1(1.0-1.2M)	22-Jl0036969	Jul 12, 2022	Approximate Sample 399g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH8(0.4-0.6M)	22-Jl0036970	Jul 11, 2022	Approximate Sample 252g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH8(0.8-1.0M)	22-Jl0036971	Jul 11, 2022	Approximate Sample 313g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH9(0.5-0.7M)	22-Jl0036972	Jul 13, 2022	Approximate Sample 185g Sample consisted of: Brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH9(0.8-1.0M)	22-Jl0036973	Jul 13, 2022	Approximate Sample 326g Sample consisted of: Brown fine-grained sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH13(0.8-1.0M)	22-Jl0036974	Jul 13, 2022	Approximate Sample 228g Sample consisted of: Brown coarse-grained sandy soil, sand stone and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH13(1.2-1.4M)	22-Jl0036975	Jul 13, 2022	Approximate Sample 286g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH14(0.2-0.4M)	22-Jl0036976	Jul 13, 2022	Approximate Sample 257g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH14(0.8-1.0M)	22-Jl0036977	Jul 13, 2022	Approximate Sample 218g Sample consisted of: Brown fine-grained clayey sandy soil, coal, bitumen like material and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.
W2SBH15(0.3-0.5M)	22-Jl0036978	Jul 13, 2022	Approximate Sample 367g Sample consisted of: Brown fine-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
W2SBH15(0.5-0.7M)	22-Jl0036979	Jul 13, 2022	Approximate Sample 486g Sample consisted of: Light brown coarse-grained clayey sandy soil and rocks	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Jul 19, 2022	Indefinite

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Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
Report #: 906875
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jul 18, 2022 5:55 PM
Due: Jul 21, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
External Laboratory									
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**				
1	A2KBH11(0.0-0.2M)	Jul 11, 2022		Soil	S22-Jl0036905			X	X
2	A2KBH11(0.3-0.5M)	Jul 11, 2022		Soil	S22-Jl0036906			X	X
3	A2KBH11(0.5 M)	Jul 11, 2022		Soil	S22-Jl0036907		X		
4	A2KBH11(1.0 M)	Jul 11, 2022		Soil	S22-Jl0036908		X		
5	A2KBH11(1.5 M)	Jul 11, 2022		Soil	S22-Jl0036909		X		
6	A2KBH11(2.0 M)	Jul 11, 2022		Soil	S22-Jl0036910		X		
7	A2KBH11(2.5 M)	Jul 11, 2022		Soil	S22-Jl0036911		X		
8	A2KBH11(3.0 M)	Jul 11, 2022		Soil	S22-Jl0036912		X		

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Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Order No.: 14777
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Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jul 18, 2022 5:55 PM
Due: Jul 21, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
9	A2KBH11(3.5 M)	Jul 11, 2022		Soil	S22-Jl0036913		X		
10	A2KBH11(4.0 M)	Jul 11, 2022		Soil	S22-Jl0036914		X		
11	A2KBH11(4.5 M)	Jul 11, 2022		Soil	S22-Jl0036915		X		
12	A2KBH11(5.0 M)	Jul 11, 2022		Soil	S22-Jl0036916		X		
13	A2KBH11(5.5 M)	Jul 11, 2022		Soil	S22-Jl0036917		X		
14	A2KBH11(6.0 M)	Jul 11, 2022		Soil	S22-Jl0036918		X		
15	A2KBH11(6.5 M)	Jul 11, 2022		Soil	S22-Jl0036919		X		
16	A2KBH11(7.0 M)	Jul 11, 2022		Soil	S22-Jl0036920		X		
17	A2KBH12(0.0-0.2M)	Jul 11, 2022		Soil	S22-Jl0036921			X	X
18	A2KBH12(0.5-	Jul 11, 2022		Soil	S22-Jl0036922			X	X

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Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
18	A2KBH12(0.5-0.7M)	Jul 11, 2022		Soil	S22-Jl0036922				
19	A2KBH12(0.5 M)	Jul 11, 2022		Soil	S22-Jl0036923		X		
20	A2KBH12(1.0 M)	Jul 11, 2022		Soil	S22-Jl0036924		X		
21	A2KBH12(1.5 M)	Jul 11, 2022		Soil	S22-Jl0036925		X		
22	A2KBH12(2.0 M)	Jul 11, 2022		Soil	S22-Jl0036926		X		
23	A2KBH12(2.5 M)	Jul 11, 2022		Soil	S22-Jl0036927		X		
24	A2KBH12(3.0 M)	Jul 11, 2022		Soil	S22-Jl0036928		X		
25	A2KBH12(3.5 M)	Jul 11, 2022		Soil	S22-Jl0036929		X		
26	A2KBH12(4.0 M)	Jul 11, 2022		Soil	S22-Jl0036930		X		
27	A2KBH12(4.5	Jul 11, 2022		Soil	S22-Jl0036931		X		

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Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
	M)								
28	A2KBH12(5.0 M)	Jul 11, 2022		Soil	S22-Jl0036932		X		
29	A2KBH12(5.5 M)	Jul 11, 2022		Soil	S22-Jl0036933		X		
30	A2KBH12(6.0 M)	Jul 11, 2022		Soil	S22-Jl0036934		X		
31	A2KBH12(6.5 M)	Jul 11, 2022		Soil	S22-Jl0036935		X		
32	A2KBH12(7.0 M)	Jul 11, 2022		Soil	S22-Jl0036936		X		
33	A2KBH12(7.5 M)	Jul 11, 2022		Soil	S22-Jl0036937		X		
34	A2KBH12(8.0 M)	Jul 11, 2022		Soil	S22-Jl0036938		X		
35	A2KBH12(8.5 M)	Jul 11, 2022		Soil	S22-Jl0036939		X		
36	A2KBH12(9.0 M)	Jul 11, 2022		Soil	S22-Jl0036940		X		

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Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Order No.: 14777
Report #: 906875
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jul 18, 2022 5:55 PM
Due: Jul 21, 2022
Priority: 3 Day
Contact Name: Anurag Sobti

Project Name: AUSGRID CABLE PROJECT
Project ID: 14777

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
37	A2KBH12(9.5 M)	Jul 11, 2022		Soil	S22-Jl0036941		X		
38	A2KBH12(10.0 M)	Jul 11, 2022		Soil	S22-Jl0036942		X		
39	A2KBH22(0.0-0.2M)	Jul 12, 2022		Soil	S22-Jl0036943			X	X
40	A2KBH22(0.5-0.7M)	Jul 12, 2022		Soil	S22-Jl0036944			X	X
41	A2KBH22(0.5 M)	Jul 12, 2022		Soil	S22-Jl0036945		X		
42	A2KBH22(1.0 M)	Jul 12, 2022		Soil	S22-Jl0036946		X		
43	A2KBH22(1.5 M)	Jul 12, 2022		Soil	S22-Jl0036947		X		
44	A2KBH22(2.0 M)	Jul 12, 2022		Soil	S22-Jl0036948		X		
45	A2KBH22(2.5 M)	Jul 12, 2022		Soil	S22-Jl0036949		X		
46	A2KBH22(3.0	Jul 12, 2022		Soil	S22-Jl0036950		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
	M)								
47	A2KBH22(3.5 M)	Jul 12, 2022		Soil	S22-Jl0036951		X		
48	A2KBH22(4.0 M)	Jul 12, 2022		Soil	S22-Jl0036952		X		
49	A2KBH22(4.5 M)	Jul 12, 2022		Soil	S22-Jl0036953		X		
50	A2KBH22(5.0 M)	Jul 12, 2022		Soil	S22-Jl0036954		X		
51	A2KBH22(5.5 M)	Jul 12, 2022		Soil	S22-Jl0036955		X		
52	A2KBH22(6.0 M)	Jul 12, 2022		Soil	S22-Jl0036956		X		
53	A2KBH22(6.5 M)	Jul 12, 2022		Soil	S22-Jl0036957		X		
54	A2KBH22(7.0 M)	Jul 12, 2022		Soil	S22-Jl0036958		X		
55	A2KBH22(7.5 M)	Jul 12, 2022		Soil	S22-Jl0036959		X		

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
56	A2KBH22(8.0 M)	Jul 12, 2022		Soil	S22-Jl0036960		X		
57	A2KBH22(8.5 M)	Jul 12, 2022		Soil	S22-Jl0036961		X		
58	A2KBH22(9.0 M)	Jul 12, 2022		Soil	S22-Jl0036962		X		
59	A2KBH22(9.5 M)	Jul 12, 2022		Soil	S22-Jl0036963		X		
60	NSBH3(0.2-0.4M)	Jul 07, 2022		Soil	S22-Jl0036964			X	X
61	NSBH3(0.8-1.0M)	Jul 07, 2022		Soil	S22-Jl0036965			X	X
62	NSBH4(0.3-0.4M)	Jul 07, 2022		Soil	S22-Jl0036966			X	X
63	NSBH4(0.6-0.8M)	Jul 07, 2022		Soil	S22-Jl0036967			X	X
64	NSBH1(0.4-0.6M)	Jul 12, 2022		Soil	S22-Jl0036968			X	X
65	NSBH1(1.0-	Jul 12, 2022		Soil	S22-Jl0036969			X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
	1.2M)								
66	W2SBH8(0.4-0.6M)	Jul 11, 2022		Soil	S22-Jl0036970			X	X
67	W2SBH8(0.8-1.0M)	Jul 11, 2022		Soil	S22-Jl0036971			X	X
68	W2SBH9(0.5-0.7M)	Jul 13, 2022		Soil	S22-Jl0036972			X	X
69	W2SBH9(0.8-1.0M)	Jul 13, 2022		Soil	S22-Jl0036973			X	X
70	W2SBH13(0.8-1.0M)	Jul 13, 2022		Soil	S22-Jl0036974			X	X
71	W2SBH13(1.2-1.4M)	Jul 13, 2022		Soil	S22-Jl0036975			X	X
72	W2SBH14(0.2-0.4M)	Jul 13, 2022		Soil	S22-Jl0036976			X	X
73	W2SBH14(0.8-1.0M)	Jul 13, 2022		Soil	S22-Jl0036977			X	X
74	W2SBH15(0.3-0.5M)	Jul 13, 2022		Soil	S22-Jl0036978			X	X

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Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X
75	W2SBH15(0.5-0.7M)	Jul 13, 2022		Soil	S22-Jl0036979			X	X
76	A2KBH11(1.2-1.5M)	Jul 11, 2022		Soil	S22-Jl0036980	X			
77	A2KBH12(0.9-1.2M)	Jul 11, 2022		Soil	S22-Jl0036981	X			
78	NSBH3(1.2-1.5M)	Jul 07, 2022		Soil	S22-Jl0036982	X			
79	NSBH4(1.0-1.3M)	Jul 07, 2022		Soil	S22-Jl0036983	X			
80	NSBH1(2.0-2.2M)	Jul 12, 2022		Soil	S22-Jl0036984	X			
81	W2SBH8(1.5-1.7M)	Jul 11, 2022		Soil	S22-Jl0036985	X			
82	W2SBH9(1.2-1.4M)	Jul 13, 2022		Soil	S22-Jl0036986	X			
83	W2SBH13(1.5-1.7M)	Jul 13, 2022		Soil	S22-Jl0036987	X			
84	W2SBH14(1.5-	Jul 13, 2022		Soil	S22-Jl0036988	X			

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		Fax:	02 9675 1888	**Contact Name:**	Anurag Sobti
Project Name:	AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail	HOLD	Acid Sulfate Soils Field pH Test	Moisture Set	Alliance WAC Suite 2:TRH/BTEXN/PAH/M8/OCP/PCB/Asb
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X
1.7M)				
Test Counts	9	53	22	22

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. Information identified on this report with the colour **orange** indicates sections of the report not covered by the laboratory's scope of NATA accreditation.
6. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to "non-bonded / friable".
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w**).
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory's remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Sayeed Abu	Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

Alliance Geotechnical
10 Welder Road
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NATA Accredited
Accreditation Number 1261
Site Number 20794

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Attention: **Thalia Park-Ross**

Report **911418-S**
Project name ADDITIONAL - AUSGRID CABLE PROJECT
Project ID 14777
Received Date Jul 28, 2022

Client Sample ID			**A2KBH22(1.0M)**	**A2KBH22(1.5M)**	**A2KBH22(2.0M)**
Sample Matrix			**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S22-Au0009226**	**S22-Au0009227**	**S22-Au0009228**
Date Sampled			**Not Provided**[I12]	**Not Provided**[I12]	**Not Provided**[I12]
Test/Reference	LOR	Unit			
Actual Acidity (NLM-3.2)					
pH-KCL (NLM-3.1)	0.1	pH Units	4.9	5.1	5.5
Titratable Actual Acidity (NLM-3.2)	2	mol H+/t	13	4.1	3.7
Titratable Actual Acidity (NLM-3.2)	0.003	% pyrite S	0.020	0.007	0.006
Potential Acidity - Chromium Reducible Sulfur					
Chromium Reducible Sulfur (s-SCr) (NLM-2.1)[S04]	0.005	% S	< 0.005	< 0.005	< 0.005
Chromium Reducible Sulfur (a-SCr) (NLM-2.1)	3	mol H+/t	< 3	< 3	< 3
Extractable Sulfur					
Sulfur - KCl Extractable	0.005	% S	N/A	N/A	N/A
HCl Extractable Sulfur	0.005	% S	N/A	N/A	N/A
Retained Acidity (S-NAS)					
Net Acid soluble sulfur (SNAS) NLM-4.1	0.02	% S	N/A	N/A	N/A
Net Acid soluble sulfur (s-SNAS) NLM-4.1[S02]	0.02	% S	N/A	N/A	N/A
Net Acid soluble sulfur (a-SNAS) NLM-4.1	10	mol H+/t	N/A	N/A	N/A
HCl Extractable Sulfur Correction Factor	1	factor	2.0	2.0	2.0
Acid Neutralising Capacity (ANCbt)					
Acid Neutralising Capacity - (ANCbt) (NLM-5.2)	0.01	% CaCO3	N/A	N/A	N/A
Acid Neutralising Capacity - (s-ANCbt) (NLM-5.2)[S03]	0.02	% S	N/A	N/A	N/A
Acid Neutralising Capacity - (a-ANCbt) (NLM-5.2)	2	mol H+/t	N/A	N/A	N/A
ANC Fineness Factor		factor	1.5	1.5	1.5
Net Acidity (Including ANC)					
CRS Suite - Net Acidity - NASSG (Including ANC)	0.02	% S	0.02	< 0.02	< 0.02
CRS Suite - Net Acidity - NASSG (Including ANC)	10	mol H+/t	13	< 10	< 10
CRS Suite - Liming Rate - NASSG (Including ANC)[S01]	1	kg CaCO3/t	< 1	< 1	< 1
Extraneous Material					
<2mm Fraction	0.005	g	49	36	43
>2mm Fraction	0.005	g	0.76	< 0.005	< 0.005
Analysed Material	0.1	%	98	100	100
Extraneous Material	0.1	%	1.5	< 0.1	< 0.1
% Moisture	1	%	7.3	5.5	5.5

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Chromium Reducible Sulfur Suite			
Chromium Suite	Brisbane	Aug 09, 2022	6 Week
- Method: LTM-GEN-7070 Chromium Reducible Sulfur Suite			
Extraneous Material	Brisbane	Aug 08, 2022	6 Week
- Method: LTM-GEN-7050/7070			
% Moisture	Sydney	Aug 08, 2022	14 Days
- Method: LTM-GEN-7080 Moisture			

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Company Name:	Alliance Geotechnical	**Order No.:**	14777	**Received:**	Jul 28, 2022 11:56 AM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	911418	**Due:**	Aug 5, 2022
		Phone:	1800 288 188	**Priority:**	1 Day
		Fax:	02 9675 1888	**Contact Name:**	Thalia Park-Ross
Project Name:	ADDITIONAL - AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure	Chromium Reducible Sulfur Suite	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	A2KBH22(1.0 M)	Not Provided		Soil	S22-Au0009226				X	X
2	A2KBH22(1.5 M)	Not Provided		Soil	S22-Au0009227				X	X
3	A2KBH22(2.0 M)	Not Provided		US Leachate	S22-Au0009228	X		X		
4	W2SBH8(0.4-0.6M)	Not Provided		US Leachate	S22-Au0009229	X		X		
5	W2SBH8(0.8-1.0M)	Not Provided		US Leachate	S22-Au0009230	X		X		
6	W2SBH9(0.5-0.7M)	Not Provided		US Leachate	S22-Au0009231	X		X		
7	W2SBH9(0.8-1.0M)	Not Provided		US Leachate	S22-Au0009232	X		X		

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		Fax:	02 9675 1888	**Contact Name:**	Thalia Park-Ross
Project Name:	ADDITIONAL - AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure	Chromium Reducible Sulfur Suite	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
8	W2SBH14(0.2-0.4M)	Not Provided		US Leachate	S22-Au0009233	X	X	X		
9	W2SBH14(0.8-1.0M)	Not Provided		US Leachate	S22-Au0009234	X		X		
10	W2SBH15(0.3-0.5M)	Not Provided		US Leachate	S22-Au0009235	X		X		
11	W2SBH15(0.5-0.7M)	Not Provided		US Leachate	S22-Au0009236	X		X		
Test Counts						9	1	9	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

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QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S22-Au0009388	NCP	%	20	20	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	N/A
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
I12	Where sampling date has not been provided, Eurofins | Environment Testing is not able to determine whether analysis has been performed within recommended holding times.

Authorised by:

Andrew Black — Analytical Services Manager

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Certificate of Analysis

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Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

Attention: **Thalia Park-Ross**

Report **911418-L**
Project name ADDITIONAL - AUSGRID CABLE PROJECT
Project ID 14777
Received Date Jul 28, 2022

Client Sample ID			**W2SBH8(0.4-0.6M)**	**W2SBH8(0.8-1.0M)**	**W2SBH9(0.5-0.7M)**	**W2SBH9(0.8-1.0M)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Au0009229**	**S22-Au0009230**	**S22-Au0009231**	**S22-Au0009232**
Date Sampled			**Not Provided** I12	**Not Provided** I12	**Not Provided** I12	**Not Provided** I12
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
USA Leaching Procedure						
Leachate Fluid C01		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	7.8	6.0	9.0	9.6
pH (off)	0.1	pH Units	5.2	5.1	5.5	5.4
pH (USA HCl addition)	0.1	pH Units	1.0	1.0	1.0	0.9

Client Sample ID			**W2SBH14(0.2-0.4M)**	**W2SBH14(0.8-1.0M)**	**W2SBH15(0.3-0.5M)**	**W2SBH15(0.5-0.7M)**
Sample Matrix			**US Leachate**	**US Leachate**	**US Leachate**	**US Leachate**
Eurofins Sample No.			**S22-Au0009233**	**S22-Au0009234**	**S22-Au0009235**	**S22-Au0009236**
Date Sampled			**Not Provided** I12	**Not Provided** I12	**Not Provided** I12	**Not Provided** I12
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene	0.001	mg/L	0.001	< 0.001	< 0.001	< 0.001
USA Leaching Procedure						
Leachate Fluid C01		comment	1.0	1.0	1.0	1.0
pH (initial)	0.1	pH Units	6.8	8.1	7.9	6.5
pH (off)	0.1	pH Units	5.2	5.3	5.2	5.1
pH (USA HCl addition)	0.1	pH Units	0.9	0.9	0.9	0.8
Heavy Metals						
Lead	0.01	mg/L	0.66	-	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Polycyclic Aromatic Hydrocarbons	Sydney	Aug 04, 2022	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
USA Leaching Procedure	Sydney	Aug 04, 2022	14 Days
- Method: LTM-GEN-7010 Leaching Procedure for Soils & Solid Wastes			
Heavy Metals	Sydney	Aug 04, 2022	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

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Project Name:	ADDITIONAL - AUSGRID CABLE PROJECT				
Project ID:	14777				

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure	Chromium Reducible Sulfur Suite	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
External Laboratory										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**					
1	A2KBH22(1.0 M)	Not Provided		Soil	S22-Au0009226				X	X
2	A2KBH22(1.5 M)	Not Provided		Soil	S22-Au0009227				X	X
3	A2KBH22(2.0 M)	Not Provided		US Leachate	S22-Au0009228	X		X		
4	W2SBH8(0.4-0.6M)	Not Provided		US Leachate	S22-Au0009229	X		X		
5	W2SBH8(0.8-1.0M)	Not Provided		US Leachate	S22-Au0009230	X		X		
6	W2SBH9(0.5-0.7M)	Not Provided		US Leachate	S22-Au0009231	X		X		
7	W2SBH9(0.8-1.0M)	Not Provided		US Leachate	S22-Au0009232	X		X		

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Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Benzo(a)pyrene	Lead	USA Leaching Procedure	Chromium Reducible Sulfur Suite	Moisture Set
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X		X
Brisbane Laboratory - NATA # 1261 Site # 20794									X	
8	W2SBH14(0.2-0.4M)	Not Provided		US Leachate	S22-Au0009233	X	X	X		
9	W2SBH14(0.8-1.0M)	Not Provided		US Leachate	S22-Au0009234	X		X		
10	W2SBH15(0.3-0.5M)	Not Provided		US Leachate	S22-Au0009235	X		X		
11	W2SBH15(0.5-0.7M)	Not Provided		US Leachate	S22-Au0009236	X		X		
Test Counts						9	1	9	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
9. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

.

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank									
Heavy Metals									
Lead			mg/L	< 0.01			0.01	Pass	
LCS - % Recovery									
Heavy Metals									
Lead			%	89			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Heavy Metals				Result 1					
Lead	S22-Au0009233	CP	%	87			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Lead	S22-Au0008422	NCP	mg/L	0.02	0.02	1.5	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Benzo(a)pyrene	S22-Au0009236	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	N/A
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
C01	Leachate Fluid Key: 1 - pH 5.0; 2 - pH 2.9; 3 - pH 9.2; 4 - Reagent (DI) water; 5 - Client sample, 6 - other
I12	Where sampling date has not been provided, Eurofins | Environment Testing is not able to determine whether analysis has been performed within recommended holding times.

Authorised by:

Andrew Black	Analytical Services Manager
Gabriele Cordero	Senior Analyst-Metal
Roopesh Rangarajan	Senior Analyst-Organic

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

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Appendix E – NSW EPA Online Public Register Search Records

Search results

Your search for: **General Search** with the following criteria

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Number	Name	Location	Type	Status	Issued date
1563834	ADMIRAL INTERNATIONAL PTY LTD	Unit 1 64 Burrows Road , ALEXANDRIA, NSW 2015	s.91 Clean Up Notice	Issued	17 Apr 2018
11121	ANGLO METALS PTY LTD	373-377 Belmont Street, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	28 Jul 2000
1032990	ANGLO METALS PTY LTD	373-377 Belmont Street, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	05 Dec 2003
6086	AUSTRALIAN METAL CO PTY LTD	15 BOURKE ROAD, ALEXANDRIA, NSW 2015	POEO licence	No longer in force	07 Feb 2000
1027455	AUSTRALIAN METAL CO PTY LTD	15 BOURKE ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	21 May 2003
1044731	AUSTRALIAN METAL CO PTY LTD	15 BOURKE ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	22 Feb 2005
1108	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	26 Jun 2000
1009694	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	22 Jan 2002
1017403	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	18 Sep 2002
1031764	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.91 Clean Up Notice	Issued	27 Oct 2003
1057160	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	23 May 2006
1076166	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	24 Dec 2007
1082002	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	16 Jan 2008
1091133	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	24 Oct 2008
1093500	AUSTRALIAN REFINED	202-212 EUSTON	s.58 Licence	Issued	06 Nov 2008

For

	ALLOYS PTY LTD	ROAD, ALEXANDRIA, NSW 2015	Variation		
1102937	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	14 Jul 2009
1501445	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	27 Apr 2012
1506965	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	25 Jun 2012
1506978	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	25 Jun 2012
1509670	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	21 Dec 2012

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Number	Name	Location	Type	Status	Issued date
1519041	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	23 Jan 2014
1525069	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	29 Sep 2014
1578366	AUSTRALIAN REFINED ALLOYS PTY LTD	202-212 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	14 May 2019
520	BIRD BROS PTY LTD	69-73 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	19 Apr 2000
1009434	BIRD BROS PTY LTD	69-73 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	20 Aug 2001
1081496	BIRD BROS PTY LTD	69-73 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	17 Jan 2008
4994	CARDINAL GROUP PTY LTD	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	POEO licence	Revoked	02 May 2000
1095869	CARDINAL GROUP PTY LTD	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	19 Dec 2008
1114040	CARDINAL GROUP PTY LTD	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	01 Oct 2010
1500777	CARDINAL GROUP PTY LTD	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	15 Sep 2011
1503487	CARDINAL GROUP PTY LTD	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	30 Jan 2012
1505091	CARDINAL GROUP PTY LTD	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.79 Revocation of a Licence	Issued	12 Apr 2012
3428	CONCRITE PTY LTD	25 MANDIBLE STREET,	POEO licence	No longer in force	14 Apr 2000

For

		ALEXANDRIA, NSW 2015			
1008505	CONCRITE PTY LTD	25 MANDIBLE STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	18 Dec 2001
838	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	20 Jun 2001
1011197	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	05 Nov 2001
1029679	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	09 Dec 2003
1043593	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	28 Apr 2005
1053869	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	14 Dec 2005
1055545	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	24 Jan 2006

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Number	Name	Location	Type	Status	Issued date
1061481	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	28 Aug 2006
1072650	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	20 Nov 2007
1088042	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	19 Aug 2008
1096994	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	19 May 2009
1111603	CSR VIRIDIAN LIMITED	8-40 EUSTON ROAD, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	09 Mar 2010
4679	DIAL A DUMP INDUSTRIES PTY. LTD.	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	POEO licence	Issued	16 Oct 2000
1532265	DIAL A DUMP INDUSTRIES PTY. LTD.	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	18 Nov 2015
1617459	DIAL A DUMP INDUSTRIES PTY. LTD.	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	01 Apr 2022
6522	DIAMOND PRESS AUSTRALIA PTY LIMITED	118-124 BOURKE ROAD, ALEXANDRIA, NSW 2015	POEO licence	Revoked	27 Mar 2000
1016460	DIAMOND PRESS AUSTRALIA PTY LIMITED	118-124 BOURKE ROAD, ALEXANDRIA, NSW 2015	s.79 Revocation of a Licence	Issued	15 Apr 2002
6941	FUJI XEROX AUSTRALIA PTY. LIMITED	546 GARDENERS ROAD, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	26 Jun 2000
1048402	FUJI XEROX AUSTRALIA PTY. LIMITED	546 GARDENERS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	06 Jun 2005
1057090	FUJI XEROX AUSTRALIA PTY. LIMITED	546 GARDENERS ROAD, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	07 Mar 2006
3140	FULTON HOGAN INDUSTRIES PTY LTD	40-42 BURROWS ROAD, ALEXANDRIA, NSW 2015	POEO licence	No longer in force	22 Sep 2000
1012144	FULTON HOGAN	40-42 BURROWS	s.58 Licence	Issued	12 Oct 2001

For

	INDUSTRIES PTY LTD	ROAD, ALEXANDRIA, NSW 2015	Variation		
1018049	FULTON HOGAN INDUSTRIES PTY LTD	40-42 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	12 Jun 2003
4532	GOOD RIVER PROPERTIES PTY LTD	34 BURROWS ROAD, ALEXANDRIA, NSW 1435	POEO licence	Surrendered	18 Apr 2000
1011945	GOOD RIVER PROPERTIES PTY LTD	34 BURROWS ROAD, ALEXANDRIA, NSW 1435	s.80 Surrender of a Licence	Issued	29 Oct 2001
5665	HANNANPRINT NSW PTY LIMITED	55 DOODY STREET, ALEXANDRIA, NSW 2015	POEO licence	No longer in force	26 Jun 2000
1035442	HANNANPRINT NSW PTY LIMITED	55 DOODY STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	22 Mar 2004

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Number	Name	Location	Type	Status	Issued date
1044775	HANNANPRINT NSW PTY LIMITED	55 DOODY STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	02 Apr 2005
1073097	HANNANPRINT NSW PTY LIMITED	55 DOODY STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	06 Jun 2007
979	HOLCIM (AUSTRALIA) PTY LTD	122-132 EUSTON ROAD, ALEXANDRIA, NSW 2015	POEO licence	No longer in force	14 Mar 2000
6801	LEGRAND AUSTRALIA PTY LTD	298 BOTANY ROAD, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	23 Mar 2000
1043740	LEGRAND AUSTRALIA PTY LTD	298 BOTANY ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	14 Jan 2005
1069980	LEGRAND AUSTRALIA PTY LTD	298 BOTANY ROAD, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	21 Feb 2007
1107	METROMIX PTY. LIMITED	131 WYNDHAM STREET, ALEXANDRIA, NSW 2015	POEO licence	No longer in force	27 Jun 2000
1005	METROMIX PTY. LIMITED	169 EUSTON ROAD, ALEXANDRIA, NSW 2015	POEO licence	No longer in force	06 Sep 2000
1030789	MJB WASTE MANAGEMENT PTY. LIMITED	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	10 Oct 2003
1033083	MJB WASTE MANAGEMENT PTY. LIMITED	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	18 Jan 2005
1078066	MJB WASTE MANAGEMENT PTY. LIMITED	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	04 Oct 2007
1081091	MJB WASTE MANAGEMENT PTY. LIMITED	3-7 O'RIORDAN ST, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	04 Jan 2008
155	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	POEO licence	Issued	29 Mar 2000
1022160	MONROE SPRINGS	52 O'RIORDAN	s.58 Licence	Issued	11 Nov 2002

For

	(AUSTRALIA) PTY LTD	STREET, ALEXANDRIA, NSW 2015	Variation		
1044346	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	07 Feb 2005
1097975	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	26 Feb 2009
1099371	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	14 May 2009
1106902	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	30 Sep 2009
3085767053	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	Penalty Notice	Issued	05 Dec 2012
1511644	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	16 Jul 2013

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1523271	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	04 Jul 2014
1526121	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	27 Nov 2014
1528281	MONROE SPRINGS (AUSTRALIA) PTY LTD	52 O'RIORDAN STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	24 Feb 2015
6787	MORGANITE AUSTRALIA PTY LTD	65 BOURKE ROAD, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	28 Aug 2000
1035675	MORGANITE AUSTRALIA PTY LTD	65 BOURKE ROAD, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	25 Mar 2004
6162	SCHERING PTY LTD	27-31 DOODY STREET, ALEXANDRIA, NSW 2015	POEO licence	Surrendered	17 Jan 2000
1044658	SCHERING PTY LTD	27-31 DOODY STREET, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	18 Feb 2005
1081690	SCHERING PTY LTD	27-31 DOODY STREET, ALEXANDRIA, NSW 2015	s.80 Surrender of a Licence	Issued	08 Jan 2008
1057066	VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	06 Mar 2006
1095905	VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	19 Dec 2008
1501840	VEOLIA ENVIRONMENTAL SERVICES (AUSTRALIA) PTY LTD	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	08 Dec 2011
1516688	VISY INDUSTRIES AUSTRALIA PTY LTD	76-82 BURROWS ROAD, ALEXANDRIA, NSW 2015	s.58 Licence Variation	Issued	05 Sep 2013

For

21359	VISY PAPER PTY. LTD.	112-120 EUSTON ROAD, ALEXANDRIA, NSW 2015	POEO licence	Issued	20 Oct 2020

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Search results

Your search for: **General Search** with the following criteria

Suburb - Daceyville

returned 0 result

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Search results

Your search for: **General Search** with the following criteria

Suburb - eastlakes

returned 3 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
4494	SYDNEY WATER CORPORATION	., EASTLAKES, NSW 2018	POEO licence	Surrendered	07 Sep 2000
1017137	SYDNEY WATER CORPORATION	., EASTLAKES, NSW 2018	s.58 Licence Variation	Issued	18 Jun 2002
1026794	SYDNEY WATER CORPORATION	., EASTLAKES, NSW 2018	s.80 Surrender of a Licence	Issued	22 Apr 2003

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Search results

Your search for: **General Search** with the following criteria

Suburb - Kingsford

returned 2 results

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Number	Name	Location	Type	Status	Issued date
10975	SOUTH EASTERN SYDNEY AND ILLAWARRA AREA HEALTH SERVICE	549 Anzac Parade, KINGSFORD, NSW 2032	POEO licence	Surrendered	30 Jun 2000
1014901	SOUTH EASTERN SYDNEY AND ILLAWARRA AREA HEALTH SERVICE	549 Anzac Parade, KINGSFORD, NSW 2032	s.80 Surrender of a Licence	Issued	08 Feb 2002

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Search results

Your search for: **General Search** with the following criteria

Suburb - Rosebery

returned 10 results

Export to excel 1 of 1 Pages Search Again

Number	Name	Location	Type	Status	Issued date
11207	ARISTOCRAT TECHNOLOGIES AUSTRALIA PTY LIMITED	85-113; 115-133; 135-151 Dunning Avenue & 55 Mentmore Avenue, ROSEBERY, NSW 2018	POEO licence	Surrendered	04 Jan 2002
1044588	ARISTOCRAT TECHNOLOGIES AUSTRALIA PTY LIMITED	85-113; 115-133; 135-151 Dunning Avenue & 55 Mentmore Avenue, ROSEBERY, NSW 2018	s.58 Licence Variation	Issued	19 Feb 2005
1084079	ARISTOCRAT TECHNOLOGIES AUSTRALIA PTY LIMITED	85-113; 115-133; 135-151 Dunning Avenue & 55 Mentmore Avenue, ROSEBERY, NSW 2018	s.80 Surrender of a Licence	Issued	01 Apr 2008
11951	DAVID GRAPHICS PTY LIMITED	54 ROSEBERY AVENUE, ROSEBERY, NSW 2018	POEO licence	Surrendered	19 Sep 2003
1044253	DAVID GRAPHICS PTY LIMITED	54 ROSEBERY AVENUE, ROSEBERY, NSW 2018	s.80 Surrender of a Licence	Issued	03 Feb 2005
6597	ESTEE LAUDER PTY. LIMITED	21 ROSEBERY AVE, ROSEBERY, NSW 2018	POEO licence	Surrendered	19 May 2000
1004077	ESTEE LAUDER PTY. LIMITED	21 ROSEBERY AVE, ROSEBERY, NSW 2018	s.58 Licence Variation	Issued	05 Mar 2001
1025077	ESTEE LAUDER PTY. LIMITED	21 ROSEBERY AVE, ROSEBERY, NSW 2018	s.80 Surrender of a Licence	Issued	11 Apr 2003
11309	IBM AUSTRALIA LTD	1-55 Rothschild Avenue, ROSEBERY, NSW 2018	POEO licence	Surrendered	26 Feb 2001
1017069	IBM AUSTRALIA LTD	1-55 Rothschild Avenue, ROSEBERY, NSW 2018	s.80 Surrender of a Licence	Issued	02 May 2002

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Search results

Your search for:Suburb: DACEYVILLE

Search Again
Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the planning process.

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... more search tips

More information about particular sites may be available from:

- The POEO public register
- The appropriate planning authority: for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act.

See What's in the record and What's not in the record.

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.
This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.POEO public register

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Search results

Your search for:Suburb: EASTLAKES

Matched 9 notices relating to 3 sites.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
EASTLAKES	102 Maloney STREET	Budget Petroleum Eastlakes	5 former
EASTLAKES	Evans AVENUE	Eastlakes Reserve	4 former
EASTLAKES	275-279 Gardeners ROAD	Former Shell Rosebery service station and adjacent land	2 former

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Search results

Your search for:Suburb: KINGSFORD

Search Again
Refine Search

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

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Search results

Your search for:Suburb: ROSEBERY

Matched 10 notices relating to 2 sites.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
ROSEBERY	321 Gardeners (Cnr Macquarie St) ROAD	Caltex Rosebery Service Station	4 former
ROSEBERY	395 Gardeners ROAD	Rosebery Service Station	6 former

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Search results

Your search for:Suburb: ALEXANDRIA

Matched 13 notices relating to 5 sites.

Search Again

Refine Search

Suburb	Address	Site Name	Notices related to this site
ALEXANDRIA	Off Huntley STREET	Alexandra Canal Sediments	2 current
ALEXANDRIA	10-24 Ralph STREET	Australia Post	2 former
ALEXANDRIA	49-59 O'Riordan STREET	Former Cadbury Schweppes	1 former
ALEXANDRIA	10-20 Botany ROAD	Formerly Gas N Go Alexandria (fully redeveloped into residential apartment as of September 2016)	3 former
ALEXANDRIA	Sydney Park ROAD	Sydney Park	5 current

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Section 55 Protection of the Environment Operations Act 1997

Environment Protection Licence

Licence - 3140

Department of **Environment & Climate Change** NSW

Licence Details	
Number:	3140
Anniversary Date:	26-June
Review Due Date:	30-Dec-2010

Licensee
PIONEER ROAD SERVICES PTY LTD
LOCKED BAG 13
WINDSOR NSW 2756

Licence Type
Premises

Premises
PIONEER ROAD SERVICES
40-42 BURROWS ROAD
ALEXANDRIA NSW 2015

Scheduled Activity
Bitumen Pre-mix or Hot-mix Industries

Fee Based Activity	**Scale**
Bitumen Pre-Mix or Hot-Mix Production (8)	> 30000 - 100000 T produced

Region
Metropolitan
Level 3, NSW Govt Offices, 84 Crown Street
WOLLONGONG NSW 2500
Phone: 02 4224 4100
Fax: 02 4224 4110
PO Box 513 WOLLONGONG EAST
NSW 2520

Environment Protection Licence

Department of Environment & Climate Change NSW

Licence - 3140

INFORMATION ABOUT THIS LICENCE **4**
Dictionary 4
Responsibilities of licensee 4
Variation of licence conditions 4
Duration of licence 4
Licence review 4
Fees and annual return to be sent to the EPA 4
Transfer of licence 5
Public register and access to monitoring data 5
1 ADMINISTRATIVE CONDITIONS **5**
A1 What the licence authorises and regulates 5
A2 Premises to which this licence applies 7
A3 Other activities 7
A4 Information supplied to the EPA 7
2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND **7**
P1 Location of monitoring/discharge points and areas 7
3 LIMIT CONDITIONS **8**
L1 Pollution of waters 8
L2 Load limits 8
L3 Concentration limits 8
L4 Volume and mass limits 8
L5 Waste 8
L6 Noise Limits 8
4 OPERATING CONDITIONS **9**
O1 Activities must be carried out in a competent manner 9
O2 Maintenance of plant and equipment 9
O3 Dust Control 9
5 MONITORING AND RECORDING CONDITIONS **9**
M1 Monitoring records 9
M2 Requirement to monitor concentration of pollutants discharged 10
M3 Testing methods - concentration limits 10
M4 Recording of pollution complaints 10
M5 Telephone complaints line 10
M6 Requirement to monitor volume or mass 11
6 REPORTING CONDITIONS **11**
R1 Annual return documents 11
R2 Notification of environmental harm 12
R3 Written report 12
GENERAL CONDITIONS **13**

G1 Copy of licence kept at the premises 13

POLLUTION STUDIES AND REDUCTION PROGRAMS 13

SPECIAL CONDITIONS 14

DICTIONARY 14

General Dictionary 14

Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act); and
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

PIONEER ROAD SERVICES PTY LTD
LOCKED BAG 13
WINDSOR NSW 2756

subject to the conditions which follow.

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Bitumen Pre-mix or Hot-mix Industries

Fee Based Activity	Scale
Bitumen Pre-Mix or Hot-Mix Production (8)	> 30000 - 100000 T produced

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
PIONEER ROAD SERVICES
40-42 BURROWS ROAD
ALEXANDRIA
NSW
2015
LOT 2 DP 503151

A3 Other activities

A3.1 Not applicable.

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 Not applicable.

P1.2 Not applicable.

P1.3 Not applicable.

3 Limit conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

L2.1 Not applicable.

L2.2 Not applicable.

L3 Concentration limits

L3.1 Not applicable.

L3.2 Not applicable.

L3.3 Not applicable.

L4 Volume and mass limits

L4.1 Not applicable.

L5 Waste

L5.1 Not applicable.

L6 Noise Limits

L6.1 Not applicable.

4 Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:
(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
(a) must be maintained in a proper and efficient condition; and
(b) must be operated in a proper and efficient manner.

O3 Dust Control

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

5 Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
(a) in a legible form, or in a form that can readily be reduced to a legible form;
(b) kept for at least 4 years after the monitoring or event to which they relate took place; and
(c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
(a) the date(s) on which the sample was taken;
(b) the time(s) at which the sample was collected;

(c) the point at which the sample was taken; and
(d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 Not applicable.

M3 Testing methods - concentration limits

M3.1 Not applicable.

M3.2 Not applicable.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
(a) the date and time of the complaint;
(b) the method by which the complaint was made;
(c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
(d) the nature of the complaint;
(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
(f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
(a) the date of the issue of this licence or
(b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 Not applicable.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
(a) a Statement of Compliance; and
(b) a Monitoring and Complaints Summary.
A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

R1.6 Not applicable.

Licensee must retain copy of Annual Return

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
(a) the licence holder; or
(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
(a) where this licence applies to premises, an event has occurred at the premises; or

(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

(a) the cause, time and duration of the event;
(b) the type, volume and concentration of every pollutant discharged as a result of the event;
(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
(g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

Pollution studies and reduction programs

U1.1 Not applicable.

Special conditions

E1.1 Not applicable.

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.

cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence

reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
reprocessing of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Ms Cathryn Ferguson

Environment Protection Authority

(By Delegation)

Date of this edition - 07-Jul-2003

End Notes

1	Licence varied by notice 1012144, issued on 12-Oct-2001, which came into effect on 06-Nov-2001.
2	Licence varied by Change of contact details, issued on 05-Mar-2002, which came into effect on 05-Mar-2002.
3	Licence varied by format and/or typographical corrections, issued on 04-Apr-2002, which came into effect on 04-Apr-2002.
4	Licence varied by notice 1018049, issued on 12-Jun-2003, which came into effect on 07-Jul-2003.

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ALBURY	Coles Express Albury	465 Guinea STREET	Service Station	Regulation under CLM Act not required	-36.07513665	146.9213077
ALBURY	Former Thales Australia site, Albury	161 Fallon STREET	Other Industry	Contamination formerly regulated under the CLM Act	-36.064966	146.9434831
ALBURY	Xpress Service Station	616-624 Young STREET	Service Station	Contamination formerly regulated under the CLM Act	-36.0755401	146.9255668
ALBURY	Albury Plaza	Cnr Smollett Street and Townsend STREET	Other Industry	Regulation under CLM Act not required	-36.08112933	146.9135719
ALBURY	Mobil Albury Aviation Fuel Depot	Hangar 8 (Albury Airport), Ogden PLACE	Other Petroleum	Regulation under CLM Act not required	-36.07178139	146.9530165
ALBURY	SRA Land	448 and 452 Young STREET	Unclassified	Regulation under CLM Act not required	-36.08438605	146.9235454
ALBURY	Caltex Service Station	Dean Street, Corner Creek STREET	Service Station	Regulation under CLM Act not required	-36.07978937	146.9110825
ALEXANDRIA	Former Mobil Service Station	20 O'Riordan STREET	Service Station	Regulation under CLM Act not required	-33.9075539	151.2014811
ALEXANDRIA	Caltex Alexandria Service Station	133 Wyndham St, cnr McEvoy STREET	Service Station	Regulation under CLM Act not required	-33.90220927	151.2000425
ALEXANDRIA	Former Cadbury Schweppes	49-59 O'Riordan STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.91406619	151.195067
ALEXANDRIA	Formerly Gas N Go Alexandria (fully redeveloped into residential apartment as of September 2016)	10-20 Botany ROAD	Service Station	Regulation under CLM Act not required	-33.89536227	151.1987818
ALEXANDRIA	Mascot Developments	494-504 Gardeners ROAD	Other Industry	Regulation under CLM Act not required	-33.9198218	151.191282
ALEXANDRIA	Alexandria GoGas	562 Botany ROAD	Service Station	Regulation under CLM Act not required	-33.91577222	151.2000753
ALEXANDRIA	Australian Refined Alloys	202-212 Euston ROAD	Metal Industry	Regulation under CLM Act not required	-33.91505136	151.185872
ALEXANDRIA	Alexandra Canal Sediments	Off Huntley STREET	Other Industry	Contamination currently regulated under CLM Act	-33.92204213	151.1770009

Appendix F - Logs

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BH No: A2K-BH01
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 53 Burrows Rd, St Peter
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 23/06/2022
Finished: 23/06/2022
Borehole Size: 250 mm

Rig Type: TDLR690
Hole Coordinates 332340E, 6245731N
Driller: CC
Logged: AH
RL Surface: 2.59m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT			2.5			-	Asphaltic CONCRETE, 120mm.			-	-	PAVEMENT
ADT						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded, appears well compacted.	25		D	-	FILL
						-	FILL: Gravelly SAND, medium grained, brown, fine to medium sub-rounded sandstone gravel, well graded, with boulders, trace clay and silt (crushed sandstone)		ES	M	-	
			2.0	0.5		-	FILL: SAND, medium grained, dark brown, with silt.		ES	M	-	
	GW @ 0.9m			1.0		CL-CI	Clayey SAND, fine to medium grained, dark grey, low to medium plasticity.		ES	W	VL	COASTAL DEPOSITS
			1.5						TR			
										M		
			1.0	1.5					SPT 0, 1, 0 N=1			
			0.5	2.0					PSD			
			0.0	2.5								
									TR			
			-0.5	3.0					SPT 0, 1, 0 N=1			
				3.5								
			-1.0				Target Depth Borehole A2K-BH01 terminated at 3.5m					
				4.0								
			-1.5									
				4.5								
			-2.0									
				5.0								

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BH No: A2K-BH02
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 81A Campbell Rd Bridge, Alexandria
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 25/05/2022
Finished: 25/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 332422E, 6245429N
Driller: CC
Logged: AH
RL Surface: 4.95m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT, ADT			4.5	0.5		-	FILL: Silty SAND, fine to medium grained, grey, trace sub-angular gravel, with organics (grass) and foreign material (porcelain), appears moderately compacted.	3, 4, 25	ES; PSD	M	-	FILL
			4.0	1.0		-	FILL: Clayey SAND, fine to coarse grained, pale brown, medium plasticity clay, with fine to medium rounded gravel, appears moderately compacted.		ES; TR; ES	M - W; W		
			3.5	1.5								
	GW @ 1.8m		3.0	2.0		SP	Silty SAND, fine grained, grey-brown, poorly graded.		SPT 0, 0, 1 N=1		VL	COASTAL DEPOSITS
			2.5	2.5			Target Depth Borehole A2K-BH02 terminated at 2m					
			2.0	3.0								
			1.5	3.5								
			1.0	4.0								
			0.5	4.5								
			0.0	5.0								

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BH No: A2K-BH05
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 30 Birmingham St, Alexadria
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 25/05/2022
Finished: 25/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 333222E, 6245183N
Driller: CC
Logged: AH
RL Surface: 11.27m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT						-	Asphaltic CONCRETE, 100mm.			-	-	PAVEMENT
ADT	Not Encountered		11.0			-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium sand, poorly graded (ballast), appears well compacted.					FILL
						-	FILL: Gravelly SAND, fine grained, pale brown, with clay, fine to medium sub-angular sandstone gravel, appears well compacted.					
				0.5		SP	SAND, fine to medium grained, brown-grey, with silt, poorly graded, trace fine sub-angular gravel.	10 25	ES	M	MD	COASTAL DEPOSITS
			10.5						ES, PSD			
				1.0					TR			
			10.0						ES	-		
						SP	SAND, fine grained, brown, trace silt, poorly graded.					
				1.5							MD	
			9.5				1.84m: with medium plasticity clay.		SPT 4, 7, 7 N=14			
				2.0								
			9.0				Target Depth Borehole A2K-BH05 terminated at 2m					
				2.5								
			8.5									
				3.0								
			8.0									
				3.5								
			7.5									
				4.0								
			7.0									
				4.5								
			6.5									
				5.0								

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BH No: A2K-BH06
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 646 Gillespie Ave, Alexandria
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 25/05/2022
Finished: 25/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 333388E, 6245302N
Driller: CC
Logged: AH
RL Surface: 12.05m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADDT	Not Encountered		12.0			-	Asphaltic CONCRETE, 50mm.			-	-	PAVEMENT
						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium sand, poorly graded, appears moderately compacted.			M		FILL
						-	FILL: Gravelly SAND, fine to coarse grained, grey, fine to medium angular igneous gravel, appears well compacted.	10	ES			
				0.5		-	FILL: Gravelly SAND, fine grained, orange-brown, well graded, sandstone gravel, with clay, appears well compacted.	25	ES			
			11.5			SP	SAND, fine to coarse grained, pale grey, white.			D	(D)	COASTAL DEPOSITS
							0.6m: becoming brown.		PSD			
				1.0					TR			
			11.0						ES			
				1.5								
			10.5				1.5m: becoming orange brown and pale brown.		SPT 4, 8, 10 N=18		MD	
							1.8m: becoming dark brown.					
				2.0								
			10.0				Target Depth Borehole A2K-BH06 terminated at 2m					
				2.5								
			9.5									
				3.0								
			9.0									
				3.5								
			8.5									
				4.0								
			8.0									
				4.5								
			7.5									
				5.0								

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BH No: A2K-BH07
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 20 Harcourt Parade, Rosebery
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 25/05/2022
Finished: 25/05/2022
Borehole Size: 220 mm

Rig Type: TDLR690
Hole Coordinates 333746E, 6245253N
Driller: CC
Logged: AH
RL Surface: 11.59m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT			11.5			-	Asphaltic CONCRETE, 100mm.			-	-	FILL
ADT						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium sand, poorly graded (ballast).			M		
						-	FILL: Gravelly SAND, fine grained, pale brown, fine to medium sub-angular sandstone gravel, appears moderately to well compacted.	17	ES			
				0.5		SP	SAND, fine grained, brown, with silt.	17			D	COASTAL DEPOSITS
			11.0					10	ES			
									PSD/PI			
	GW @ 0.9m			1.0					TR			
			10.5									
				1.5		CL-CH	Sandy CLAY, medium plasticity, dark grey, fine to coarse grained sand, trace fine to medium sub-angular gravel.		ES	MC > PL	St	
			10.0						SPT 2, 4, 5 N=9			
				2.0		SM	Silty SAND, fine grained, grey-brown, trace clay.			W	L	
			9.5				Target Depth Borehole A2K-BH07 terminated at 2m					
				2.5								
			9.0									
				3.0								
			8.5									
				3.5								
			8.0									
				4.0								
			7.5									
				4.5								
			7.0									
				5.0								

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BH No: A2K-BH08
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 71 Harcourt Parade, Rosebery
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 26/05/2022
Finished: 26/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 334053E, 6245196N
Driller: CC
Logged: AH
RL Surface: 15.63m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT	Not Encountered		15.5			-	Asphaltic CONCRETE, 120mm.			-	-	PAVEMENT
ADT						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded (ballast), appears well compacted.			M		FILL
						-	FILL: Gravelly SAND, fine grained, pale grey and white, fine to medium sub-angular crushed sandstone gravel, appears well compacted.	20 25	ES			
				0.5		SP	SAND, fine to medium grained, pale brown, trace silt.				D	COASTAL DEPOSITS
			15.0									
									PSD			
				1.0					TR			
			14.5									
									ES			
				1.5							MD	
			14.0						SPT 3, 4, 6 N=10			
				2.0								
			13.5				Target Depth Borehole A2K-BH08 terminated at 2m					
				2.5								
			13.0									
				3.0								
			12.5									
				3.5								
			12.0									
				4.0								
			11.5									
				4.5								
			11.0									
				5.0								

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BH No: A2K-BH09
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 101 Harcourt Parade, Rosebery
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 26/05/2022
Finished: 26/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 334381E, 6245150N
Driller: CC
Logged: AH
RL Surface: 18.12m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT	Not Encountered		18.0			-	Asphaltic CONCRETE, 115mm.			-	-	PAVEMENT
ADT						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium sand, poorly graded (ballast), appears well compacted.			D		FILL
						-	FILL: Gravelly SAND, fine grained, pale grey and white, fine to medium sub-angular crushed sandstone gravel, appears well compacted.		ES			
				0.5		SM	SAND, fine to coarse grained, brown-grey, poorly graded.	9			L	COASTAL DEPOSITS
			17.5					6	ES			
								9				
				1.0					TR			
			17.0				1.2m: brown.		ES			
				1.5					PSD			
			16.5						SPT 2, 1, 2 N=3		L	
						SP	SAND, fine grained, pale brown grey, trace silt.					
				2.0								
			16.0				Target Depth Borehole A2K-BH09 terminated at 2m					
				2.5								
			15.5									
				3.0								
			15.0									
				3.5								
			14.5									
				4.0								
			14.0									
				4.5								
			13.5									
				5.0								

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BH No: A2K-BH10
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 137 Harcourt Parade, Rosebery
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 23/06/2022
Finished: 23/06/2022
Borehole Size: 250 mm

Rig Type: TDLR690
Hole Coordinates 334635E, 6245074N
Driller: CC
Logged: AH
RL Surface: 18.43m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT	Not Encountered					-	FILL: SAND, fine to medium grained, pale brown, with silt and organics (rootlets).	6, 9	ES	-	-	FILL
ADT			18.0	0.5		-	FILL: Silty SAND, fine to medium grained, dark grey to grey.	17, 25	PSD ES	M	-	
						SP	SAND, fine to medium grained, yellow to pale brown, trace silt.		ES	M	MD	COASTAL DEPOSITS
			17.5	1.0					TR			
			17.0	1.5			1.7m: brown-red.		SPT 2, 5, 7 N=12			
			16.5	2.0			1.9m: dark grey.					
							Target Depth Borehole A2K-BH10 terminated at 2m					
			16.0	2.5								
			15.5	3.0								
			15.0	3.5								
			14.5	4.0								
			14.0	4.5								
			13.5	5.0								

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BH No: A2K-BH11
Sheet: 1 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 218 Gardeners Rd, Roseberry
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 11/07/2022
Finished: 11/07/2022
Borehole Size: 110 mm

Rig Type: CE180
Hole Coordinates 334784E, 6244886N
Driller: DR
Logged: AH
RL Surface: 20.35m
Contractor: BG Drilling
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT						-	FILL: Silty SAND, fine to medium grained, grey-brown, with organics, appears poorly compacted.	1 0 2 2 1	ES	M	-	FILL
			20						ES			
							0.7m: orange and red brown		SPT 1, 1, 1 N=2			
				1					TR			
			19				1.2m: with foreign material (metal fragments)		ES			
									SPT 1, 1, 1 N=2			
						SP	SAND, fine to medium grained, orange-brown, trace silt.			M	VL	COASTAL DEPOSITS
				2								
			18									
	GW @ 2.8m			3			3.0m: orange and red brown		TR	W		
			17									
									SPT 0, 1, 2 N=3			
				4			3.9m: pale brown and yellow		PSD			
			16									
							4.5m: with fine to medioum sub-angular ironstone gravel.		SPT 2, 6, 12 N=18		MD	
				5					TR			
			15									
				6								NO SPTs below 4.5m, due to hole collapse
			14									
				7								
			13									
				8								

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BH No: A2K-BH11
Sheet: 2 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 218 Gardeners Rd, Roseberry
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 11/07/2022
Finished: 11/07/2022
Borehole Size: 110 mm

Rig Type: CE180
Hole Coordinates 334784E, 6244886N
Driller: DR
Logged: AH
RL Surface: 20.35m
Contractor: BG Drilling
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT			12	9		SP	SAND, fine to medium grained, orange-brown, trace silt. *(continued)*			W	MD	
			11	10			Beyond Target Depth Borehole A2K-BH11 terminated at 9m					
			10	11								
			9	12								
			8	13								
			7	14								
			6	15								
			5	16								

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BH No: A2K-BH12
Sheet: 1 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 216 Gardeners Rd, Roseberry
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 11/07/2022
Finished: 11/07/2022
Borehole Size: 110 mm

Rig Type: CE180
Hole Coordinates 334837E, 6244837N
Driller: DR
Logged: AH
RL Surface: 22.98m
Contractor: BG Drilling
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT						-	FILL: Silty SAND, fine to medium grained, brown, with organics.	2	ES	-	-	FILL
						-	FILL: SAND, fine to medium grained, pale brown-orange, trace silt and fine to medium sub-angular sandstone gravel, appears poorly compacted.	2 1 3		M	-	
						SP	SAND, fine grained, pale brown-orange, trace silt.	3	ES SPT 3, 2, 1 N=3	M	VL	COASTAL DEPOSITS
			22	1					ES			
									SPT 0, 0, 0 N=0			
			21	2								
						SP	SAND, fine grained, pale brown, trace silt.			M	L	
			20	3					SPT 3, 4, 5 N=9			
			19	4					TR			
						SP	SAND, fine grained, orange-brown, trace silt and low plasticity clay.		PSD	M	L	
									SPT 3, 3, 5 N=8			
			18	5								
						SP	SAND, medium grained, pale brown, trace silt.			M - W	L	
			17	6					SPT 2, 3, 4 N=7			No SPTs below 6.0m due to hole collapse
	GW @ 6.2m						From 6.5m: grey-brown.					
			16	7								
			15	8								

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BH No: A2K-BH12
Sheet: 2 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 216 Gardeners Rd, Roseberry
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 11/07/2022
Finished: 11/07/2022
Borehole Size: 110 mm

Rig Type: CE180
Hole Coordinates 334837E, 6244837N
Driller: DR
Logged: AH
RL Surface: 22.98m
Contractor: BG Drilling
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT						SP	SAND, medium grained, pale brown, trace silt. *(continued)*			M - W	L	
			14	9								
			13	10								
							Target Depth Borehole A2K-BH12 terminated at 10m					
			12	11								
			11	12								
			10	13								
			9	14								
			8	15								
			7	16								

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BH No: A2K-BH13
Sheet: 1 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 146 Turnstall Ave, Kensington
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 10/06/2002
Finished: 10/06/2002
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 335044E, 6244806N
Driller: Nick
Logged: AH
RL Surface: 26.57m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT	Not Encountered		26.5			-	Asphaltic CONCRETE, 150mm.			-	-	FILL
ADT						-	FILL: Sandy GRAVEL, fine to medium sub-angular igneous gravel, brown, fine to medium grained sand.		ES	-	-	
				0.5		-	FILL: SAND, fine grained, pale brown, trace silt, with fine to medium angular igneous gravel.	6 12 15	ES	-	-	
			26.0						SPT 4, 9, 8 N=17			
				1.0		SP	SAND, fine grained, pale brown, trace silt.			D	L - MD	COASTAL DEPOSITS
			25.5						PSD-TR			
							1.2m: brown-orange.					
				1.5								
			25.0						SPT 3, 5, 5 N=10 ES			
				2.0								
			24.5									
				2.5		SP	SAND, fine to medium grained, pale brown/yellow, poorly graded.			D - M	L - MD	
			24.0						PSD-TR			
				3.0								
			23.5						SPT 2, 4, 5 N=9			
				3.5								
			23.0									
				4.0								
			22.5									
				4.5								
			22.0						SPT 5, 7, 10 N=17 PSD-TR			
				5.0								
			21.5									
				5.5								

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BH No: A2K-BH13
Sheet: 2 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 146 Turnstall Ave, Kensington
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 10/06/2002
Finished: 10/06/2002
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 335044E, 6244806N
Driller: Nick
Logged: AH
RL Surface: 26.57m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT			21.0			SP	SAND, fine to medium grained, pale brown/yellow, poorly graded. *(continued)*			D - M	L - MD	
			20.5	6.0					SPT 7, 9, 10 N=19		MD	
			20.0	6.5								
			19.5	7.0					PSD-TR			
			19.0	7.5					SPT 6, 7, 10 N=17			
			18.5	8.0		SP	SAND, fine to medium grained, orange-brown, poorly graded, with clay.			M		
			18.0	8.5								
			17.5	9.0			9.1m: pale brown/yellow.		PSD-TR			
									SPT 5, 9, 15 N=24			
			17.0	9.5								
				10.0								
			16.5				Target Depth Borehole A2K-BH13 terminated at 10m					
			16.0	10.5								
				11.0								

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BH No: A2K-BH14
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 2 Tresidder Ave, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 26/05/2022
Finished: 26/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 335186E, 6245092N
Driller: CC
Logged: AH
RL Surface: 24.28m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADDT	Not Encountered					-	Asphaltic CONCRETE, 50mm.			-	-	PAVEMENT
						-	FILL: Sandy GRAVEL, fine to medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded (ballast), appears well compacted.			M		FILL
			24.0			-	FILL: Gravelly SAND, fine grained, orange-brown, fine to medium sub-angular crushed sandstone, appears well compacted.	8	ES	D	D	COASTAL DEPOSITS
				0.5		SP	SAND, fine grained, grey-brown, with silt.	19				
								15	ES			
			23.5					11	PSD			
				1.0					TR			
			23.0						ES			
				1.5							L	
			22.5						SPT 3, 3, 4 N=7			
				2.0								
							Target Depth Borehole A2K-BH14 terminated at 2m					
			22.0									
				2.5								
			21.5									
				3.0								
			21.0									
				3.5								
			20.5									
				4.0								
			20.0									
				4.5								
			19.5									
				5.0								

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BH No: A2K-BH15
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 142 Cottenham Ave, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 26/05/2022
Finished: 26/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 335474E, 6244982N
Driller: CC
Logged: AH
RL Surface: 20.26m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADTDT	Not Encountered					-	Asphaltic CONCRETE, 70mm.			-	-	PAVEMENT
						-	FILL: Sandy GRAVEL, fine to medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded (ballast), appears well compacted.			M		FILL
			20.0			-	FILL: Gravelly SAND, fine grained, orange-brown, fine to medium sub-angular crushed sandstone, appears well compacted.	8	ES			
				0.5		SM	Silty SAND, fine grained, grey-brown, poorly graded.	25 25		D	D	COASTAL DEPOSITS
			19.5						ES			
				1.0					TR			
			19.0						ES			
				1.5								
			18.5			SP	SAND, medium grained, pale grey, white, trace silt, poorly graded.		SPT 2, 3, 3 N=6 PSD	M	L	
				2.0								
							Target depth. Borehole A2K-BH15 terminated at 2m					
			18.0									
				2.5								
			17.5									
				3.0								
			17.0									
				3.5								
			16.5									
				4.0								
			16.0									
				4.5								
			15.5									
				5.0								

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BH No: A2K-BH16
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 253 Borrodale Rd, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 26/05/2022
Finished: 26/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 335690E, 6244908N
Driller: CC
Logged: AH
RL Surface: 20.18m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT	Not Encountered					-	Asphaltic CONCRETE, 70mm.			-	-	PAVEMENT
			20.0			-	FILL: Gravelly SAND, fine to medium grained, grey, well graded, fine to medium sub-angular igneous appears well compacted.			D		FILL
						-	FILL: SAND, fine to medium grained, grey, well graded, with fine to medium sub-angular igneous gravel, appears well compacted.		ES			
				0.5		SP	SAND, fine to medium grained, pale brown, poorly graded.				D	COASTAL DEPOSITS
			19.5			SP	SAND, fine to medium grained, brown, with clay and silt, poorly graded.	11 11 11	ES, PSD	M		
				1.0		SM	Silty SAND, fine grained, brown, poorly graded.		TR	D - M		
			19.0						ES, PSD			
				1.5								
			18.5			SP	SAND, fine to medium grained, pale brown, yellow, trace silt.		SPT 3, 3, 4 N=7	M	L	
				2.0			Borehole A2K-BH16 terminated at 2m					
			18.0									
				2.5								
			17.5									
				3.0								
			17.0									
				3.5								
			16.5									
				4.0								
			16.0									
				4.5								
			15.5									
				5.0								

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BH No: A2K-BH17
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 23 Bruce St, Kensington
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 9/06/2022
Finished: 9/06/2022
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 335962E, 6244745N
Driller: Nick
Logged: AH
RL Surface: 23.64m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADDT	Not Encountered					-	Asphaltic CONCRETE, 50mm.			-	-	PAVEMENT
			23.5			-	FILL: Sandy GRAVEL, fine to medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded (ballast), appears well compacted.			-	-	FILL
				0.5		-	FILL: SAND, fine grained, grey-brown, poorly graded, trace silt.	8	ES	D	MD	
			23.0					10, 11,	SPT 5, 10, 17 N=27 ES			
				1.0					TR			
			22.5			SP	SAND, fine grained, brown-orange, trace clay and silt, poorly graded.		PSD/ES	-	L	COASTAL DEPOSITS
				1.5								
			22.0						SPT 2, 4, 4 N=8			
				2.0								
			21.5				Target Depth Borehole A2K-BH17 terminated at 2m					
				2.5								
			21.0									
				3.0								
			20.5									
				3.5								
			20.0									
				4.0								
			19.5									
				4.5								
			19.0									
				5.0								

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BH No: A2K-BH18
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 25 Solander Rd, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 26/05/2022
Finished: 26/05/2022
Borehole Size: 110 mm

Rig Type: TDLR690
Hole Coordinates 335995E, 6244684N
Driller: CC
Logged: AH
RL Surface: 23.33m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT	Not Encountered					-	Asphaltic CONCRETE, 70mm.			-	-	PAVEMENT
ADT						-	FILL: Gravelly SAND, fine grained, orange-brown, fine to medium sub-angular crushed sandstone gravel, appears well compacted.			M		FILL
			23.0						ES			
				0.5		SM	Silty SAND, fine grained, grey-brown, poorly graded.	3		W	L	COASTAL DEPOSITS
						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded (ballast), appears well compacted.	3 3	ES/PSD			
			22.5									
				1.0					TR			
			22.0									
				1.5		SP	SAND, fine grained, pale grey/white, poorly graded.		ES	D	L	
			21.5						SPT 1, 2, 2 N=4 PSD			
				2.0			Borehole A2K-BH18 terminated at 2m					
			21.0									
				2.5								
			20.5									
				3.0								
			20.0									
				3.5								
			19.5									
				4.0								
			19.0									
				4.5								
			18.5									
				5.0								

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BH No: A2K-BH19
Sheet: 1 of 1
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 3 Colenso Crescent, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 27/05/2022
Finished: 27/05/2022
Borehole Size: 220 mm

Rig Type: TDLR690
Hole Coordinates 336072E, 6244495N
Driller: CC
Logged: AH
RL Surface: 21.92m
Contractor: Alliance Geotechnical
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT	Not Encountered					-	Asphaltic CONCRETE, 60mm.			-	-	PAVEMENT
						-	FILL: Gravelly SAND, fine grained, orange-brown, fine to medium sub-angular crushed sandstone gravel, appears well compacted.			M		FILL
									ES			
			21.5	0.5		SP	SAND, fine grained, pale grey-brown, poorly graded.	18			VD	COASTAL DEPOSITS
								8	ES		MD	
								7	PSD			
			21.0	1.0		SC	Clayey SAND, fine grained, brown-orange, low plasticity clay.		ES			
									TR			
			20.5	1.5		SP	SAND, fine to medium grained, pale brown-yellow, poorly graded.				L - VL	
			20.0	2.0					SPT 1, 2, 2 N=4			
							Borehole A2K-BH19 terminated at 2m					
			19.5	2.5								
			19.0	3.0								
			18.5	3.5								
			18.0	4.0								
			17.5	4.5								
			17.0	5.0								

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BH No: A2K-BH20
Sheet: 1 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 14 Colonel Braund Cres, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 9/06/2022
Finished: 9/06/2022
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 336256E, 6244469N
Driller: Nick
Logged: AH
RL Surface: 23.82m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT						-	Asphaltic CONCRETE, 80mm.			-	-	PAVEMENT
ADT						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium grained sand, poorly graded (ballast), well cemented, appears well compacted.			-	-	
						-	FILL: Gravelly SAND, fine to medium grained, grey-brown, rounded igneous gravel, appears moderately compacted.			D	-	FILL
			23.5			SP	SAND, fine grained, grey, poorly graded.	8	ES	D	MD	COASTAL DEPOSITS
				0.5				8	ES			
								10	SPT 5, 5, 8 N=13 PSD			
			23.0				0.8m: pale brown, fine grained quartz sand.					
				1.0					TR			
			22.5									
				1.5					ES			
									SPT 2, 2, 4 N=6 PSD			
			22.0			SM	Silty SAND, fine grained, brown-orange, trace clay.			D - M	L	
				2.0								
			21.5									
				2.5								
			21.0				2.7m: with clay.					
									TR			
				3.0					SPT 2, 8, 10 N=18 Overfilled SPT due to hole collapse			
			20.5									
				3.5		SP	SAND, fine grained, yellow, trace silt, poorly graded.			D	MD	
			20.0									
				4.0					TR/PSD			
			19.5									
				4.5		SM	Silty SAND, fine grained, brown, poorly graded.			M	MD	No SPT at 4.5m due to hole collapse
			19.0									
	▼			5.0								

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BH No: A2K-BH20
Sheet: 2 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 14 Colonel Braund Cres, Kingsford
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 9/06/2022
Finished: 9/06/2022
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 336256E, 6244469N
Driller: Nick
Logged: AH
RL Surface: 23.82m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT	GW @ ~5.0m		18.5	5.5		SM	Silty SAND, fine grained, brown, poorly graded. *(continued)*			M	MD	
			18.0	6.0		SP	SAND, fine grained, pale brown, poorly graded.		TR		D - VD	
			17.5						SPT 6, 25, 24 N=49			
				6.5			Target Depth Borehole A2K-BH20 terminated at 6.45m					
			17.0	7.0								
			16.5	7.5								
			16.0	8.0								
			15.5	8.5								
			15.0	9.0								
			14.5	9.5								
			14.0	10.0								

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BH No: A2K-BH21
Sheet: 1 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 65 Anderson St, Daceyville
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 9/06/2022
Finished: 9/06/2022
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 336320E, 6244478N
Driller: Nick
Logged: AH
RL Surface: 23.59m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
DT			23.5			-	Asphaltic CONCRETE, 80mm.			-	-	PAVEMENT
ADT						-	FILL: Sandy GRAVEL, medium sub-angular igneous gravel, grey, fine to medium sand, poorly graded (ballast), appears well compacted.			-	-	FILL
						-	FILL: Gravelly SAND, fine grained, orange-brown, fine to medium sub-angular crushed sandstone gravel, appears moderately compacted.		ES	- D	- MD	
			23.0	0.5			FILL: SAND, fine grained, brown, poorly graded. 0.7m: pale brown.	8 7 9	SPT 4, 6, 6 N=12 PSD/ES: 0.4-0.6			
			22.5	1.0			SAND, fine grained, pale grey/white, poorly graded.					COASTAL DEPOSITS
			22.0	1.5			1.7m: brown-orange, trace clay.		SPT 1, 3, 4 N=7 PSD/ES		L	
			21.5	2.0								
			21.0	2.5		SP	SAND, fine to medium grained, pale brown and orange, poorly graded			D - M		
			20.5	3.0					TR	D		
			20.0	3.5					SPT 2, 4, 4 N=8			
			19.5	4.0								
	GW encountered at 4.7m		19.0	4.5								SPT at 4.5m aborted due to hole collapse.
				5.0		SP			TR/PSD	M	D	

A. AUGERED BOREHOLE + LOCATION CHANGE 14777.GPJ GINT STD AUSTRALIA.GDT 19/8/22

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BH No: A2K-BH21
Sheet: 2 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: 65 Anderson St, Daceyville
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 9/06/2022
Finished: 9/06/2022
Borehole Size: 250 mm

Rig Type: Ute Rig
Hole Coordinates 336320E, 6244478N
Driller: Nick
Logged: AH
RL Surface: 23.59m
Contractor: Stratacore
Bearing: ---
Checked: AS

Method	Water	Well Details	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT			18.5			SP	SAND, fine to medium grained, orange-brown, with clay, poorly graded. *(continued)*			M	D	
				5.5								
			18.0				5.5m: pale brown/orange.					
				6.0								
			17.5						SPT 4, 12, 21 N=33			
				6.5			Target Depth Borehole A2K-BH21 terminated at 6.45m					
			17.0									
				7.0								
			16.5									
				7.5								
			16.0									
				8.0								
			15.5									
				8.5								
			15.0									
				9.0								
			14.5									
				9.5								
			14.0									
				10.0								

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BH No: A2K-BH22
Sheet: 1 of 2
Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: Australian Golf Course
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 7/12/2022
Finished: 7/12/2022
Borehole Size: 100 mm

Rig Type: CE180
Hole Coordinates 334939E, 6244841N
Driller: DR
Logged: AS/AH
RL Surface: 22.62m
Contractor: BG Drilling
Bearing: ---
Checked: JA

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT					-	TOPSOIL: Silty SAND, fine to medium grained, grey-brown, with rootlets, fine gravel.		ES	D	-	TOPSOIL
					-	FILL: Silty SAND, medium to coarse grained, brown, appears moderately to well compacted.					FILL
		22	1					SPT 1, 1, 2 N=3			
		21	2		SP	SAND, fine to medium grained, pale grey, poorly graded.		SPT 1, 2, 2 N=4	M	VL	COASTAL DEPOSIT
								TR			
		20				From 2.3m: becoming grey-brown.					
			3					TR			
					SP	SAND, medium to coarse grained, brown, poorly graded.		SPT 3, 3, 4 N=7		L	
		19	4					PI			
		18						SPT 2, 3, 4 N=7			
	GW @ 5.0m		5			From 5.0m: becoming pale grey.		TR	W		
		17	6					SPT 3, 10, 15 N=25		MD	No SPT below 6.0m due to hole collapse
		16	7					TR			
		15	8								

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BH No: A2K-BH22
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Job No: 14777

Borehole Log

Client: Ausgrid
Project: Ausgrid Cable Project
Location: Australian Golf Course
Hole Location: Refer to drawing 14777-GR-1-1-A
Started: 7/12/2022
Finished: 7/12/2022
Borehole Size: 100 mm

Rig Type: CE180
Hole Coordinates 334939E, 6244841N
Driller: DR
Logged: AS/AH
RL Surface: 22.62m
Contractor: BG Drilling
Bearing: ---
Checked: JA

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	DCP per 150mm (2 4 9 18)	Samples Tests Remarks	Moisture Condition	Consistency/ Density Index	Additional Observations
ADT		14	9		SP	SAND, medium to coarse grained, brown, poorly graded. *(continued)*		TR	W	MD	
		13	10								
		12	11			Target Depth Borehole A2K-BH22 terminated at 10m					
		11	12								
		10	13								
		9	14								
		8	15								
		7	16								