Remedial Action Plan, Proposed Tallawong High School

NSW Department of Education

Report

JBS&G 67774 | 162922 (Rev 3)

21 January 2025

We acknowledge the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

We pay respect to Elders past and present and in the spirit of reconciliation, we commit to working together for our shared future.

Caring for Country The Journey of JBS&G
Artist: Patrick Caruso, Eastern Arrernte

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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AHD	Australian Height Datum
ANZG	Australian and New Zealand Governments
ASRIS	Australian Soil Resource System
ASS	Acid Sulfate Soil
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
CEC	Cation Exchange Capacity
CLM Act	Contaminated Land Management Act 1997
CMA	Catchment Management Authority (Hawkesbury Nepean)
COC	Chain of Custody
COPC	Contaminant of Potential Concern
CSM	Conceptual Site Model
DGA	Data Gap Assessment
DGV	Default Guideline Value
DQI	Data Quality Indicator
DQO	Data Quality Objectives
DSI	Detailed Site Investigation
EILs	Ecological Investigation Levels
ESL	Ecological Screening Levels
EPA	Environment Protection Authority (New South Wales)
GIL	Groundwater Investigation Level
ha	Hectare
HIL	Health-based Investigation Level
HSL	Health Screening Level
JBS&G	JBS&G Australia Pty Ltd
LEP	Local Environmental Plan
LNAPL	Light Non-Aqueous Phase Liquid
LOR	Limit of Reporting
LPI	Land and Property Information (NSW)
NEPM	National Environmental Protection Measure
OCP	Organochlorine Pesticide
OPP	Organophosphorus Pesticides
OEH	NSW Office of Environment and Heritage
OW	Office of Water (NSW)
PAH	Polycyclic Aromatic Hydrocarbons
PARCCS	Precision, Accuracy, Representativeness, Comparability, Completeness and sensitivity

PCBs	Polychlorinated Biphenyls
POEO Act	Protection of the Environment Operations Act 1997
PFAS	Per- and Poly- Fluoroalkyl Substances
PID	Photo-ionisation Detector
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RPD	Relative Percent Difference
SAQP	Sampling and Analysis Quality Plan
SCS NSW	Soil Conservation Service of NSW
TCLP	Toxicity Characteristic Leaching Procedure
TOC	Total Organic Carbon
TRH	Total Recoverable Hydrocarbons
UCL	Upper Confidence Limit
VOC	Volatile Organic Compound

Executive Summary

JBS&G Australia Pty Ltd (JBS&G) was engaged by NSW Department of Education (DoE, the client) to prepare a Remedial Action Plan (RAP) to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the construction and operation of the new Schofields - Tallawong High School (the activity) at 201 Guntawong Road, Tallawong, NSW (the site). The site is legally identified as part Lot 1 in Deposited Plan (DP) 1283186 with a total land area of approximately 4 hectares (ha). The site is situated within the Blacktown Local Government Area, and is located in the North West Growth Area of Sydney. The site location and layout are shown in **Figure 1** and **Figure 2**.

The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37A of the T&I SEPP.

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure (DPHI). The purpose of this report is to identify remediation and management requirements for identified contamination to render the site suitable for the proposed high school use.

The proposed activity is for the construction and operation of a new high school known as Schofields - Tallawong High School. A copy of the proposed site plan is provided in **Appendix C**. The new high school will accommodate up to 1,000 students. The school will provide 49 permanent teaching spaces (PTS), and 3 support teaching spaces (STS) across three buildings.

A detailed Investigation, including data gap assessment has been completed at the site (JBS&G 2025[1]). The previous investigations identified contamination issues associated with asbestos in-situ materials, and buried waste materials. Aesthetic issues were also identified in four soil stockpiles, with five additional fly tipped stockpiles of unknown origin identified on site.

The investigation report (JBS&G 2025) concluded that the site can be made suitable for the proposed land uses subject to development and implementation of a Remedial Action Plan (RAP) during future redevelopment works. The RAP, documented herein, meets the requirements of Chapter 4 Remediation of Land of State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP).

This document presents a RAP that outlines the principles of remedial/validation works required for the site, that when completed, will make and demonstrate that the site has been made suitable for the intended land uses.

Based on the findings of previous site investigations, the extent of remediation works comprises the remediation/management of waste materials and asbestos impacts to make the site suitable for the proposed future site use. In addition, aesthetic issues associated with in-situ and stockpiled fill material have been identified during site assessment. Aesthetic impacts may require management during remediation of the site, should the fill material be exposed following completion of site activity works and significant odours are encountered in soils.

Subject to the successful implementation of the measures described in this RAP, it is concluded that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment, such that the site can be made suitable for the proposed use.

[1] Detailed Site Investigation Report, Proposed Tallawong High School, JBS&G Australia Pty Ltd, 67774-162496, Revision 3, 21 January 2025 (JBS&G 2025)

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) was engaged by NSW Department of Education (DoE, the client) to prepare a Remedial Action Plan (RAP) to support a Review of Environmental Factors (REF) for the Department of Education (DoE) for the construction and operation of the new Schofields - Tallawong High School (the activity) at 201 Guntawong Road, Tallawong, NSW (the site). The site is legally identified as part Lot 1 in Deposited Plan (DP) 1283186 with a total land area of approximately 4 hectares (ha). The site is situated within the Blacktown Local Government Area, and is located in the North West Growth Area of Sydney. The site location and layout are shown in **Figure 1** and **Figure 2**.

The purpose of the REF is to assess the potential environmental impacts of the activity prescribed by *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP) as "development permitted without consent" on land carried out by or on behalf of a public authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The activity is to be undertaken pursuant to Chapter 3, Part 3.4, Section 3.37A of the T&I SEPP.

This document has been prepared in accordance with the Guidelines for Division 5.1 assessments (the Guidelines) by the Department of Planning, Housing and Infrastructure (DPHI). The purpose of this report is to identify remediation and management requirements for identified contamination to render the site suitable for the proposed high school use.

The proposed activity is for the construction and operation of a new high school known as Schofields - Tallawong High School. A copy of the proposed site plan is provided in **Appendix C**. The new high school will accommodate up to 1,000 students. The school will provide 49 permanent teaching spaces (PTS), and 3 support teaching spaces (STS) across three buildings.

The buildings will be three-storey in height and will include teaching spaces, specialist learning hubs, a library, administrative areas and a staff hub. Additional core facilities are also proposed including a standalone school hall, a carpark, a pick up and drop off zone along Nirmal Street, two sports courts and a sports field.

Specifically, the proposal involves the following:

- Three learning hubs (three-storeys in height) accommodating 49 general teaching spaces and 3 support learning units (SLUs).
- Other core facilities including amenities, library, staff hub and administrative areas.
- Standalone school hall.
- Separate carpark with 72 spaces.
- Kiss and drop zone along Nirmal Street.
- Open play space including sports courts and sports field.
- Public domain works.

The proposed site access arrangements are as follows:

- Main pedestrian entrance to be located off Nirmal Street.
- Kiss and drop zone proposed along Nirmal Street.
- Onsite parking access via Nirmal Street.

A detailed Investigation, including data gap assessment has been completed at the site (JBS&G 2025[2]). The previous investigations identified contamination issues associated with asbestos in-situ materials, and buried waste materials. Aesthetic issues were also identified in four soil stockpiles, with five additional fly tipped stockpiles of unknown origin identified on site.

The site investigation (JBS&G 2025) concluded that the site can be made suitable for the proposed land uses subject to preparation and implementation of a Remedial Action Plan (RAP) during future redevelopment works. The RAP, documented herein, meets the requirements of Chapter 4 Remediation of Land of State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP).

This document presents a RAP that outlines the principles of remedial/validation works required for the site, that when completed, will make and demonstrate that the site has been made suitable for the intended land uses.

This RAP has been prepared with reference to relevant guidelines made or endorsed by the NSW Environment Protection Authority (EPA) inclusive of NEPC (2013[3]), EPA (2020a[4]) and EPA (2017[5]), and Chapter 4 *Remediation of Land in State Environmental Planning Policy* (Resilience and Hazards) 2021 (R&H SEPP[6]).

1.2 Objectives

The objective of this RAP is to document the procedures and standards to be followed in order to address identified contamination at the site, ensuring the protection of human health and the surrounding environment, such that the impact is remediated/managed in a manner as to make the site suitable for the proposed land use.

[2] Detailed Site Investigation Report, Proposed Tallawong High School, JBS&G Australia Pty Ltd, 67774-162496, Revision 3, 21 January 2025 (JBS&G 2025)
[3] *National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended 2013*. National Environment Protection Council (NEPC 2013)
[4] *Consultants Reporting on Contaminated Land – Contaminated Land Guidelines*. NSW EPA 2020 (EPA 2020a)
[5] *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd Edition)*. NSW Environment Protection Authority 2017
[6] State Environmental Planning Policy (Resilience and Hazards) 2021 (R&H SEPP)

2. Site Condition & Surrounding Environment

2.1 Site Identification

The site location is shown on **Figure 1** and the current layout is shown on **Figure 2**. The site details are summarised in **Table 2.1** and described in detail in the following sections.

Table 2.1: Site Details

Lot / DP Number	Part Lot 1 in DP 1283186
Street Address	201 Guntawong Road, Tallawong NSW 2762
Local Government Authority	Blacktown City Council
Site Zoning	R2 (Low Density Residential) and R3 (Medium Density Residential) for the relevant portion of Lot 1
Previous Use	Rural residential and agriculture
Current Use	Vacant
Proposed Use	Secondary school
Site Area	Approximately 4 ha

2.2 Site Description

Site inspections were carried out by Milad Noujaim, a JBS&G trained and experienced environmental consultant, on 26 August 2022 and 19 September 2024. Pertinent features of the general site layout are provided in **Figure 2**.

The site was accessed via a secured gate off Guntawong Road, however, there was limited sections of fencing adjacent the eastern side gate allowing access to site on foot. The eastern boundary of the site was not fenced with vehicle access possible from Nirmal Street. Five stockpiles of what appeared to be fly tipped materials were observed in the eastern portion of the site during the inspection on 19 September 2024. Fly tipped stockpiles included discarded asbestos containing asbestos containing material (ACM) sheeting and fragments of ACM sheeting, discarded tyres, a stockpile of silty topsoil (~5 m^3), a stockpile of gravel/pebbles (~2 m^3) and a stockpile of soil with building and demolition waste inclusions (~5 m^3). The sheeting/fragments of ACM sheeting had been delineated with asbestos hazard warning tape. Stockpile locations are shown on **Figure 2**.

The site was dissected by First Ponds Creek and two ephemeral tributaries/drainage lines (the eastern and western tributaries (**Figure 2**). Tributaries/ephemeral drainage lines discharging to First Ponds Creek were located in the southern and northwestern portions of the site. Two surface water dams were present along the drainage line in the southern portion of the site.

Local alterations to the ground surfaces were observed in the alignment of former structures. Evidence of cutting and filling comprised observation of anthropogenic building materials within surficial soils at numerous locations (**Figure 3**). Several stockpiles were observed at the site, south of the former structures. Asbestos containing material (ACM) was not observed within the stockpiles, although a detailed inspection of their contents was not undertaken as part of this inspection.

The site was well vegetated and there were few areas of bare soil observed.

2.2.1 Eastern Site Portion

The eastern portion of the site comprised most of the area for which operative use had historically occurred. This included a former residence, site dams and areas of former market garden usage.

<u>Former Residence Area and Market Garden</u>

A former residence existed within the northeastern portion of the site (former Lot F) (**Figure 2**). During the inspection, the former building footprints and comprising concrete slabs, were observed to remain *in-situ*. The area was occupied by a shed and paddock, which did not contain any liquid chemicals, hazardous building materials or otherwise environmentally hazardous contents.

Surrounding the former building footprint and paddock, a significant amount of building and demolition wastes (plywood, corrugated metal sheeting and timber) were observed, in addition to tyres and corroded drums which were scattered on the surface. A single vegetated soil stockpile and debris were observed within the area, with no bulk liquids, and no hazardous building materials or other environmentally hazardous materials observed within the scattered debris.

The area adjacent to the former residence area comprised of vacant vegetated land, which was a former market garden.

Equine Livestock Storage Area

The majority of the northeastern portion (former Lot D) was utilised as horse paddocks. Fill soils had been placed in the central portion of the area, and spread over an area of approximately 200 m^2. Three stockpiles were noted in the area.

What appeared to be a microbiological sheen was observed in runoff surface water north of the former building footprint in the northeastern portion of the site.

Three timber power poles were observed to be present on site located in the northeastern extent of the site.

2.3 Regional Environmental Setting

Review of information provided in JBS&G (2023a) has identified the site's environmental setting as summarised in **Table 2.2** following.

Table 2.2: Summary Site Details

Facet	Details
Topography	Review of topographic information obtained from the Spatial Information Exchange Viewer, LPI (2022[7]) regional topographic map and the Photomaps tool, Nearmap (2022[8]), indicated that the site generally sloped downward to the west-southwest. The highest point of the site was the northeast corner (47 m AHD). A drainage line that discharged to First Ponds Creek to the west, passes from east to west in the southern end of the site.
Geology and Soil Landscape	Review of the 1:100,000 Geological Series Penrith Geological Survey of NSW Sheet 9030 (DMR 1991[9]), indicates that majority of the site is underlain by Bringelly Shale of the Wianamatta Group originating from the Middle Triassic epoch. This unit comprises shale, carbonaceous claystone, claystone, laminite, fine to medium-grained lithic sandstone, rare coal and tuff. Bringelly Shale is underlain by Ashfield Shale and, at depth, Hawkesbury Sandstone. Reference to the online ESPADE 2.2 tool hosted by the NSW Department of Planning, Industry and Environment (DPIE 2024[10]) indicates that the site is underlain by residual Blacktown soils. Blacktown soils are found on gently undulating rises atop Wianamatta Group shales. Local relief generally to 30 m, slopes usually greater than 5 %. The landscape is characterised by broad, rounded crests and ridges with gently inclined slopes amongst cleared Eucalypt woodland and tall open-forests. The soils profile comprises shallow to moderately deep hard-setting mottled texture

7 Spatial Information Exchange Viewer', NSW Land and Property Information, Accessed 23 August 2022, https://maps.six.nsw.gov.au/;

8 'Photomaps', Nearmap, Accessed 23 August 2022, Nearmap https://www.nearmap.com.au/

9 *Penrith Geological Series Sheet 9030 (1st Edition),* Departments of Minerals and Energy, 1991 (DME 1991)

10 *ESPADE 2.2,* NSW Department of Planning, Industry and Environment (DPIE), accessed 16 September 2024 (DPIE 2024)

Facet	Details
	contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and within drainage lines. Localised seasonal waterlogging, water erosion hazard, moderately reactive and highly plastic subsoil as well as localised surface movement potential are associated limitations of the landscape.
Hydrogeology	Review of registered groundwater bore information obtained from WaterNSW (2022[11]) online resource identified nine registered groundwater bores within a 2 km radius of the site. These bores were reported to be monitoring, stock and test wells installed to between 4 m and 240 m below ground levels and situated either approximately 1.5 km to the south or 1.9 km to the northeast of the site. A review of the available groundwater borehole logs has indicated that multiple water bearing zones are present within the region. The reported depths to groundwater indicate that, close to hydrological features, there is an unconfined shallow groundwater table. As distance from the surface water bodies increases, the depth to the groundwater table is expected to increase. The shallow groundwater table is expected to be confined by underlying impermeable shale layers, although some infiltration into fractures, joints, shear lines, etc. may occur. During the groundwater investigation completed as part of the DSI (JBS&G 2024a), standing water level was reported 40.232 m AHD (approximately 4.9 m below top of casing).
Hydrology	The site slopes downwards to west-southwest, with an ephemeral drainage line located in the southern end of the site that discharges, during periods of flow, into First Ponds Creek. Two surface water dams were located in the drainage line. First Ponds Creek joins with Killarney Chain of Ponds approximately 3.3 km northwest of the site, which eventually joins South Creek and subsequently the Hawkesbury River. First Ponds Creek, Killarney Chain of Ponds and the Hawkesbury River are all freshwater environments at the relevant locations. The site's ground surfaces are primarily unsealed. Upon hillsides and rises, given the expected soil characteristics, infiltration into the local, shallow groundwater table is expected to be limited. It is considered likely that onsite vegetation would contain rainfall and retard its overland flow. During periods of heavy rainfall, excess surface waters are expected to flow overland into the onsite surface water bodies and towards First Ponds Creek.
Salinity	Review of the Salinity Potential in Western Sydney Map (DIPNR 2003[12]) indicates that the site exists within an area of 'moderate salinity potential' outside of drainage line areas. Areas with this classification exhibit scattered scalding and indicator vegetation, but soil concentrations have not been mapped. Saline areas are identified as potentially existing within these areas. Within soils surrounding drainage lines of First Ponds Creek, a 'high salinity potential' is noted. These areas are typically on lower slopes of drainage systems where water accumulation occurs.
Acid Sulfate Soils	Review of Guidelines for the Use of Acid Sulfate Soil Risk Maps, Department of Land and Water Conservation (DLWC) (1998[13]), indicated that acid sulfate soils (ASS) are likely to be located in coastal lowlands up to about 10 m AHD. No risk map for the area encompassing the site was provided as part of the acid sulfate soil risk map series, DLWC (1998). Review of the geographical and topographical location of the site has indicated that it is a significant distance away from tidal creeks or estuaries, and it is considered unlikely that ASS would exist at the site.

[11] All Groundwater Map. WaterNSW, https://realtimedata.waternsw.com.au/, accessed 23 August 2022.
[12] Salinity Potential in Western Sydney. Department of Infrastructure, Planning and Natural Resources, March 2003, DIPNR (2003)
[13] *Guidelines for the use of Acid Sulfate Soil Risk Maps, Edition 2'*, 1998, Ref: ISBN 0 7347 5134 6, NSW Department of Land and Water Conservation (1998)

Facet	Details
Meteorology	A review of average climatic data for the nearest Bureau of Meteorology (BOM) monitoring location at Seven Hills, BOM (2022 [14]) indicates the Site is located within the following meteorological setting: • Average minimum temperatures vary from 4.5 ^{o}C in July to 17.0 ^{o}C in February; • Average maximum temperatures vary from 17.4 ^{o}C in July to 28.4 ^{o}C in December; • The average annual rainfall is approximately 913.1 mm with rainfall greater than 1 mm occurring on an average of 84.2 days per year; and • Monthly rainfall varies from 43.2 mm in July to 117.9 mm in February with the wettest periods occurring on average in January to June.

[14] *'Climate Statistics for Australian Locations – Seven Hills, Collins Street'*, Commonwealth of Australia, Bureau of Meteorology 2013,Prepared on 11 August 2022, Accessed 15 August 2022, http://www.bom.gov.au/climate/averages/tables/cw_067026.shtml

3. Previous Assessments

3.1 Summary Site History

As detailed in JBS&G (2025), the site has previously been used primarily as a rural residence until sometime after 1956, with minor agricultural operations utilising market gardens and a dam visible from 1961. In 1963, ownership of the site was transferred to a private company, Hoffmann Bros. Pty Limited. Market gardening appeared to have ceased in the southern half of the site before 1975, however the shed may have been associated with other agricultural activities on a larger parcel of land owned by Hoffman Bros. Hoffmann Bros. owned the site until 1984 when its ownership was transferred to the Minister Administering the Environmental Planning and Assessment Act 1979. Between transfer of ownership to the Minister and the current investigation, the site appeared to have been leased, however no records of this were reported in the historical land title records.

3.2 Summary of Previous Investigations

3.2.1 Detailed Site Investigation (JBS&G 2025)

JBS&G was engaged by SINSW to conduct a DSI at the site relating to the proposed site use as a high school. The scope of works comprised: a review of available site history, previous investigation reports and publicly available information to identify potential AECs and associated COPC; completion of an intrusive investigation program; laboratory analysis of selected samples for a range of COPCs; comparison of collected data against NSW EPA published and/or relevant endorsed criteria to facilitate an assessment of land use suitability; and preparation of a DSI report in accordance with relevant EPA guidelines.

The site investigation works comprised: a detailed site inspection and advancement of 61 test pits and collection of representative soil samples; collection of 18 samples from five stockpiles present on site; installation of one groundwater monitoring well and completion of a groundwater monitoring event (GME); collection of three surface water samples from surface water features at the site including dams and surface water channels; laboratory analysis of samples for COPCs; and comparison of laboratory data against adopted site assessment criteria. Summary tables of site data are provided in **Appendix B**.

Based on the scope of work completed for this investigation, the following conclusions were drawn with regard to the site:

- Soil investigation via completion of 61 test pits for characterisation of in situ soil and collection of 18 samples for characterisation of five stockpiles present on site has identified:
    - Bonded ACM impacts identified in the fill profile at TP183_0-0.1 represented a potentially unacceptable risk to future site users. The identified asbestos impacts required remediation/management prior to site activity.
- Aesthetic impacts associated with anthropogenic material in limited in-situ fill at test pit TP183, including waste materials at this location, and in stockpiles SP01-SP04 may require management during redevelopment of the site, should the fill material be exposed following completion of activity works.
- Groundwater assessment identified:
    - Copper in a concentration exceeding adopted criteria protective of 95% of species in freshwater were detected in groundwater, however, the concentration was considered to most likely reflect background conditions within the hydrogeological setting of the site;
- Comparison of surface water analytical results with the adopted health screening and recreational criteria adopted indicated surface water impacts did not present a significant risk to future site users. It was considered that the heavy metal concentrations within the surface water did not pose a health risk and the water can likely be irrigated or used for dust suppression on the site.

- It was considered that the site can be made suitable for the proposed mixed land uses subject to preparation and successful implementation of an appropriate remedial action plan (RAP) to guide further delineation works and address the identified areas of concern.

4. Conceptual Site Model

4.1 Contamination Status

Based on environmental data from previous assessments undertaken at the site, as summarised above in **Section 3**, contamination issues that require remediation/management for the site to be considered suitable for the proposed land uses include the following:

- In-situ fill material impacted with bonded asbestos; and
- Aesthetic issues in both in-situ and stockpiled fill and relating to anthropogenic inclusions comprising plastic, tile, glass, metal, PVC, rubber, brick, metal, ceramic, timber, automotive parts and asbestos.

4.2 Affected Media

The available environmental data indicates that in-situ fill in one location (TP183) contained bonded asbestos in a concentration exceeding site assessment criterion as shown on **Figures 5A**. Asbestos was also identified in delineation sampling location TP183B, TP183C and TP183D, although the extent of asbestos impacted soil/fill has not been fully delineated. The area of affected soils requiring remediation/management is summarised in **Table 4.1** below.

Further, minor anthropogenic inclusions observed in limited in-situ fill and in stockpiles SP01-SP04 may require management during activity at the site, should the fill material be exposed following completion of civil works.

Based on findings of previous investigations as summarised in **Section 3**, other media (i.e. surface or ground water or gas/vapour) are considered to be not impacted.

Table 4.1 Soil Media Impacts

Sample ID	Matrix	Contaminant of concern	Concentration (mg/kg)	Criteria Exceeded	Remediation/Management Required?
TP183_0-0.3	Fill	Asbestos	0.05 %w/w	HIL-C	Yes
TP183C, TP183D	Fill	Asbestos	-	-	Yes
TP183B_0-1.5	Fill	Asbestos and waste	-	-	Yes
SP02-03	Fill (stockpile)	Zinc	780	EIL	No It was concluded that the ecological exceedances did not represent an unacceptable risk requiring remediation or management. Notwithstanding, material within stockpile SP02 requires management with respect to identified aesthetic impacts.
SP01 to SP04	Fill (stockpiles)	-	-	-	Aesthetic impacts associated with anthropogenic material in stockpiles SP01-SP04 may require management during redevelopment of the site, should the fill material be exposed following completion of civil works.

4.3 Potential for Migration from Site

Contaminants generally migrate from site via a combination of windblown dusts, rainwater infiltration, groundwater migration and surface water runoff. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid/liquid and mobility characteristics);
- The extent of the contaminants (isolated or widespread);
- The location of the contaminants (surface soils or at depth); and
- Topography, geology, hydrology and hydrogeology.

The COPCs identified as part of the site history review and site inspection are generally in solid (e.g. asbestos and metals), liquid (e.g. TRH, BTEX) or gaseous (e.g. VOC, volatile TRH) form.

The ground surfaces overlying AECs are primarily covered by grass and vegetation. Excess rainfall is considered likely to migrate from the site via overland flow into onsite hydrological features, as described in **Section 2.2**. Soil may also migrate via overland water flow and accumulate in sediment in on-site dams. The potential for migration of in-situ impacted soil via windblown dust is considered to be low provided the vegetative cover is maintained across the site surfaces.

Upon hillsides and rises, given the expected soil characteristics, infiltration into the local, shallow groundwater table is expected to be limited. It is considered likely that onsite vegetation would contain rainfall and retard its overland flow. During periods of heavy rainfall, excess surface waters are expected to flow overland into the onsite surface water bodies.

The potential solubility of chemical contaminants in soil, in addition to rate of surface water intrusion, perched water seepage and groundwater movement across the site will influence the potential for migration of soil and groundwater-based contamination within and from the site. Notwithstanding, if impacted groundwater and/or surface water are migrating to the site from the eastern tributaries to First Ponds Creek, then potential for offsite migration may require consideration.

4.4 Human / Ecological Receptors and Exposure Pathways

Potential human receptors of environmental impact include future site users, visitors and construction/maintenance contractors engaged to work at the site who may potentially be exposed to COPCs through inhalation or direct contact with impacted soils or groundwater present within the site. Additionally, migration of contaminants via overland flow into surface water bodies, infiltration into groundwater, windblown dusts and vapour also pose a potential risk to potential receptors.

During site redevelopment, complete source-receptor pathways may include:

- Potential dermal contact with and ingestion of impacted soils present at shallow depths and/or accessible by future excavations by site workers, visitor and/or occupants; and/or
- Potential inhalation of asbestos fibres, if present, within fill materials and/or surface impacts.

Possible off-site ecological receptors are limited to potential receptors of groundwater and surface runoff water migrating from the site towards First Ponds Creek.

4.5 Preferential Pathways

For the purpose of this assessment, preferential pathways have been identified as natural and/or man-made pathways that result in the preferential migration of COPC as either liquids or gasses.

Man-made preferential pathways have been identified to be present throughout the site, generally associated with areas of previously disturbed fill material and service easements such the sewerage main in the southern portion of the site.

Natural preferential pathways are likely limited to onsite hydrological features such as the surface water ephemeral drainage lines that discharge to First Ponds Creek.

Based on the conceptual site model (CSM) established for the site including nature of identified contaminants (heavy metals and asbestos) being in solid form, migration of contamination through preferential pathways is considered not to be a significant migration pathway at the site.

5. Remedial Options

5.1 Remediation Objectives

The remediation objectives are outlined as follows:

- Remove or manage potentially unacceptable human health and aesthetic issues for the proposed land use;
- Ensure unexpected contamination finds are assessed, managed and validated appropriately for the proposed land use;
- Validate the remedial works in accordance with relevant NSW EPA guidelines and with reference to the site-specific validation assessment criteria; and
- Document the validation process.

The RAP has been prepared with reference to the following:

- *Chapter 4 Remediation of Land of State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP)
- *Contaminated Land Guidelines, Sampling design part 1 – application*, NSW EPA, 2022 (EPA 2022a)
- *Contaminated Land Guidelines, Sampling design part 2 – interpretation*, NSW EPA, 2022 (EPA 2022b)
- *Contaminated Land Management: Consultants Reporting on Contaminated Land*, NSW EPA, May 2020 (EPA 2020)
- *Contaminated Land Management: Guidelines for NSW Site Auditor Scheme (3rd Edition)*, October 2017 NSW EPA (EPA 2017)
- *National Environment Protection (Assessment of Site Contamination Measure) Measure 1999, as amended 2013*, National Environment Protection council (NEPC 2013)
- *Waste Classification Guidelines. Part 1: Classifying Waste*, NSW EPA, November 2014 (EPA 2014)
- *Work Health and Safety Act 2011* (WHS Act 2011)
- *Work Health and Safety Regulation 2017* (WHS Regulation)
- *Code of Practice: How to Manage and Control Asbestos in the Workplace*, Safe Work Australia, 2020 (SWA 2020a)
- *Code of Practice: How to Safely Remove Asbestos*, Safe Work Australia, 2020 (SWA 2020b)
- *Management of Asbestos in the Non-Occupational Environment*, enHealth Council, 2005 (enHealth 2005)
- *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, WA Department of Health, 2009 (WA DoH 2009)

5.2 Extent of Remediation

Based on the findings of the previous investigations (**Section 3**) and subject to the limitations of these investigations, the anticipated extent of the proposed remedial works for currently identified impacts is presented in **Table 5.1** and shown in **Figures 4**. Remediation is required to address the contamination risks to ensure the suitability of the site for the proposed use.

Table 5.1 Estimated Extent of Remediation

Remediation Area	Contaminants of Concern	Potential Sources	Area [1]	Average Depth of Fill [2]	Maximum Depth of Fill [3]	Approximate Volume of impacted fill [4,5]
TP183, TP183B, TP183C, TP183D	Asbestos	Hazardous building materials associated with the demolition of former site structures. Waste materials in potential waste burial pit also identified in TP183B.	1,450 m^2	0.5 m	1.5 m	725 m^3
Stockpiles SP01, SP02, SP03, SP04	Aesthetics	Stockpiled fill material of unknown origin	SP01 - 470 m^2 SP02 – 160 m^2 SP03 – 520 m^2 SP04 – 80 m^2	N/A	N/A	1,000 m^3

Notes:
(1) Volume estimate is based on remedial areas extending to the halfway between the nearest clean sample location, with the exception of TP183A. As a conservative measure it has been assumed that asbestos impacted soil may extend beyond TP183A as per the areas shown on Figure 4.
(2) The average depth of fill was calculated from depth of fill in test pits TP183, TP183A, TP183B, TP183C, TP183D.
(3) The maximum depth of fill was from test pit located within the impacted area.
(4) The approximate volume was calculated with consideration of the average depth of fill.
(5) The approximate volumes provided are based on in-situ/in-place volumes only and do not account for bulking factor during excavation.

5.3 Remedial Options Assessment

5.3.1 EPA and NEPC (2013)

The approach adopted in this RAP is consistent with the preferred hierarchy of options for site clean- up and/or management provided in NEPC (2013) and referred to by EPA (2017), which are listed as follows:

- on-site treatment of the contamination so that it is destroyed, or the associated risk is reduced to an acceptable level; and
- off-site treatment of excavated soil, so that the contamination is destroyed, or the associated risk is reduced to an acceptable level, after which soil is returned to the site; or,
- if the above are not practicable,
- consolidation and isolation of the soil on site by containment with a properly designed barrier; and
- removal of contaminated material to an approved site or facility, followed, where necessary, by replacement with appropriate material;

or,

- where the assessment indicates remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

In addition, it is also a requirement that remediation should not proceed in the event that it is likely to cause a greater adverse effect than leaving the site undisturbed. In addition, where there are large quantities of soil with low levels of contamination, alternative strategies are required to be considered or developed (EPA 2017). Further, sustainability should be considered by the consultant when deciding which remediation option to choose, in terms of achieving an appropriate balance between the benefits and effects of undertaking the option. For example, where there are large quantities of soil with low levels of contamination, alternative strategies are required to be considered or developed (EPA 2017).

Consideration of each of the available options is presented in **Table 5.1**, taking into account the proposed activity at the site.

5.3.2 WA DoH 2009 Asbestos Guidance

WA DoH (2009) provides specific guidance in the remediation and management of asbestos, and is referenced in the EPA endorsed NEPC (2013).

WA DoH (2009) note the following considerations as important when assessing the acceptability of any remediation:

- Minimisation of public risk;
- Minimisation of contaminated soil disturbance; and
- Minimisation of contaminated material/soil moved to landfill.

Consideration of the WA DoH (2009) guidance is incorporated in **Table 5.1**, taking into account the proposed activity at the site. NSW EPA's current position on a revised 2021 version of these guidelines is outlined below.

5.3.3 NSW EPA Draft Position Statement

It is noted that the EPA currently has a revised draft position statement[15] on the revised 2021 version of the WA DoH (2009) guidance and related to management of asbestos in soil in NSW. The revised draft position statement permits emu-picking for the removal of bonded (non-friable) ACM fragments from soil and the ground surface.

[15]Draft position statement: management of asbestos-contaminated sites, https://www.epa.nsw.gov.au/your-environment/contaminated-land/other-contamination-issues/managing-asbestos-in-and-on-land/position-statement-wa-managment-of-asbestos-sites/draft-position-statement, accessed 1 February 2024

Table 5.2 Remediation Options Assessment Matrix

Option of Treatment	Applicability	Assessment
Option 1: Onsite treatment of the soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level.	Bonded ACM impacts There is no available technology that provides for the destruction of asbestos in soil impacts. Reducing/removing the ACM content in soil impacts/on the ground surface can be undertaken under certain conditions, comprising the physical separation of ACM from soil (ie. emu picking), thereby allowing for the discrete disposal of collected ACM fragments and retention of remediated soil.	This is the preferred option for the management of bonded ACM impacted surface and sub surface soil where they are not co-located with waste materials.
Option 2: Offsite treatment of excavated soil/infrastructure so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable.	Bonded ACM impacts Offsite treatment and re-use of asbestos contaminated soils is not permitted in NSW. There are no offsite licensed facilities for such treatment and offsite treatment and re-use of asbestos contaminated soils is not permitted in NSW.	Not a suitable option.
Option 3: On-site in situ management of the soil by physical separation, and ongoing management.	Bonded ACM impacts Onsite containment is a cost-effective method for remediating bonded ACM impacted soils. On-site containment would require implementation of an ongoing environmental/asbestos management plan (EMP/AMP).	A potential option for bonded ACM impacted surface and sub surface soil where they are not co-located with waste materials. In-situ management will provide physical separation between users of the site and retained fill materials. This option is of highest ranking with respect to the ESD principles as a result of the lower waste volumes and energy use.
Option 4: Removal of contaminated soil/infrastructure to an approved site or facility, followed where necessary by replacement with clean fill.	Bonded ACM impacts There are currently suitably licensed waste facilities in the region capable of accepting bonded ACM impacted soils.	This is the preferred option for the management of bonded ACM impacted soil where they are co-located with waste materials.

5.4 Proposed Remedial Approach

Potential remedial options have been outlined in **Table 5.1**. Based on assessment of those options, giving consideration to the proposed high school use, the preferred remedial strategy for the site is:

- Excavation and off-site disposal where ACM are co-located with waste materials;
- On-site treatment of bonded ACM impacted surface soil (<100mm) via emu-picking where ACM is not co-located with waste materials; and
- On-site treatment of bonded ACM impacted fill at depth (>100mm) via excavation and emu-picking, where ACM is not co-located with waste materials.

As a contingency, if additional unexpected asbestos or other impacts are identified, or the preferred remedial options or validation fails, alternate approaches may be adopted. A contingency option for consolidation and isolation of bonded ACM impacted soils via on site containment under proposed buildings or open area within a properly designed barrier and other contingencies including unexpected finds are provided in **Section 8**.

Material with aesthetic impacts will not be suitable for use at the site surface. These materials will need to be treated and reused onsite or alternatively placed below pavements or be covered with at least 0.1 m of suitable material as part of the proposed activity, subject to geotechnical approval on placement location.

5.5 Mitigation Measures

Mitigation measures for site contamination summarised in **Section 5.2** are summarised in **Table 5.3**.

Table 5-3: Mitigation Measures

Mitigation Name	Aspect/Section	Mitigation Measure	Reason for Mitigation Measure
Preparation of a Remedial Action Plan (RAP).	As part of initial civil works.	This RAP has been prepared to identify remediation/management and validation requirements to be implemented as part of initial civil works.	To ensure the site is made suitable for the proposed school use.

5.6 Evaluation of Environmental Impacts

Based on the RAP, the following evaluation of environmental impacts, relating to remediation of identified site contamination, has been made:

- The extent and nature of potential impacts are low and remediation and validation works set out in the RAP will not have significant impact on the locality, community and/or the environment.
- Subject to implementation of this RAP, potential impacts can be appropriately mitigated or managed to ensure that there is minimal impact on the locality, community and/or the environment.
- Adequately mitigated through recommended measures.
- Is not considered to be a significant impact.

6. Remedial Plan

6.1 Approvals, Licences and Notices

6.1.1 State Environment Planning Policy (Resilience and Hazards) 2021 (R&H SEPP)

From review of the site location and proposed activities, the remediation works are considered Category 2 Remediation Works (**Section 11.1**) as per the meaning provided in the R&H SEPP. It is anticipated that the works will be undertaken ancillary to the proposed new high school and as such approval will be sought under part 5 of the EP&A Act.

Notification of completion of remediation must be given to the council within 30 days of completion to meet SEPP-RH requirements.

6.1.2 Asbestos Works

Asbestos impacted fill-based soils have been reported on previous assessment works conducted. The asbestos has been identified in bonded form (ACM).

A Class B asbestos removal contractor must be engaged to supervise or perform the works and also provide SafeWork NSW with notification at least 5 days in advance that works disturbing in-situ asbestos are proposed.

Remediation works shall not commence until all required approvals, licences and notifications have been granted and/or received.

6.1.3 Site Establishment

All safety and environmental controls are to be implemented as the first stage of remediation works. These controls will include, but not be limited to:

- Locate and isolate all required utilities in the proximity of the works;
- Assess need for traffic and pedestrian controls;
- Work area security fencing;
- Site signage and contact numbers;
- Sediment fencing (attached to security fencing); and
- Stormwater runoff sediment controls.

Environmental controls are outlined in **Section 9**.

6.2 Remedial Works

Areas requiring remediation are discussed in **Section 5.2**. The remedial works are required to be undertaken by a Remediation Contractor with appropriate qualifications, licences, and experience, under the supervision of an Environmental Consultant who will complete monitoring and validation requirements.

Once complete the scope of remedial works will broadly comprise:

- Removal of ACM sheeting in a fly-tipped stockpile at the site.
- On-site treatment of bonded ACM impacted surface soil (<100mm) via emu-picking, where ACM is not co-located with waste materials.
- Onsite treatment of bonded ACM impacted fill at depth (>100mm) via excavation and emu-picking, where ACM is not co-located with waste materials.
- Management of materials of aesthetic concern in SP01 to SP04.

Each of the remedial work stages are described in more detail in the following sections.

6.2.1 Site Wide Pre-Remediation Inspection

Prior to earthworks activities and following vegetation removal (i.e. slashing) as required, an inspection of the exposed ground surface shall be undertaken by the Environmental Consultant identify any unexpected finds including aesthetic impacts/surface debris, which will be treated under the unexpected finds protocol (**Section 8.1**).

It is noted that any vegetation slashing prior to inspection should avoid disturbance of surface soil due to the identified and potential presence of surface ACM. Slashing is recommended to be completed to no lower than 5 cm above ground level.

6.2.2 Data Gap Close Out

Dam Sediments and Embankments

Two dams have been identified to be present on site (**Figure 2**). If the dam sediments and embankment fill is proposed to be remain or be reused on site, these require assessment prior to commencement of bulk excavations. Representative samples shall be collected and analysed for heavy metals, TRH/BTEX, PAH, OCP and asbestos.

Areas of surface debris

Following removal of unexpected finds including aesthetic impacts/surface debris identified during the pre-remediation site wide inspection, a clearance inspection shall be conducted by a suitably qualified Environmental Consultant to confirm the full extent of aesthetic materials has been removed. This shall include photographic records for inclusion in the validation report.

The data gap assessment report and an addendum RAP or Remedial Works Plan (RWP) (if required) will be prepared for review and endorsement by the Site Auditor prior to commencement of remediation and earthworks. It is expected that a RAP or RWP will only be required if identified impacts cannot be managed under an unexpected finds protocol.

6.2.3 Waste materials and Asbestos Impacted Soils

ACM impacted fill materials co-located with waste, in the vicinity of TP183B, the materials shall be excavated and classified for off-site disposal, as follows:

- The material will be excavated under the supervision of the Environmental Consultant with the material stockpiled on hardstand/durable plastic, placed in a skip bin or alternatively directly loaded onto a haulage vehicle for off-site disposal. The material will be removed from site under a waste classification as per EPA (2014a) for disposal to a facility lawfully able to accept the material;
- Where impacted material is temporarily stockpiled outside of identified impacted areas and is placed on plastic or geofabric, a visual inspection only of the stockpile footprint will be required following loading into trucks for offsite disposal. Where impacted material is temporarily placed on unsealed ground, the area is to be validated by the Environmental Consultant as per **Section 7**. Should validation fail, the failed portion will be excavated a further 0.2 m in the direction of the failure and the validation process repeated until validation is successfully achieved; and
- Once validation is achieved, the consultant will advise the contractor that the excavation area can be reinstated with validated site won or imported soil (**Section 7.3**), or if reinstatement is not required to meet design levels, the area can be made safe, with asbestos controls no longer required.

Any unexpected finds will be managed as per **Section 8**.

6.2.4 Bonded ACM Identified in Surface Soil

Where asbestos is identified as bonded ACM and limited to surface soil, hand-picking of asbestos fragments is a suitable option until the soil meets the validation criteria i.e. no visible asbestos in surface soils (**Section 7.3**). It is also considered that removing all bonded ACM from the surface can reduce the likelihood of further impacts/unexpected finds during works. Large pieces of building and demolition materials should also be removed during this process if identified. Bonded ACM within surface soils at the site may be removed via the following methodology:

- Collection of ACM fragments by raking and hand picking of the surface soils by the Remediation Contractor;
- Offsite disposal of the collected ACM fragments to an appropriately licensed waste facility;
- Each area of picked material will be inspected by the Environmental Consultant by walking a minimum of two sets of 1 m spaced transects set at right angles, to observe the presence of remaining ACM fragments; and
- If bonded ACM is identified, surface soils are required to be walked and picked, and re-inspected, until such time as visual validation is obtained.
- Careful removal and inspection of grass cover will be required where present to enable raking and picking of surface soils.
- Additionally, the Environmental Consultant will complete a 10 L field asbestos quantification and 500 mL asbestos soil validation sample at a rate of 1 sample per 100 m^2.
- Provided there is no visible asbestos remaining in surface soil and asbestos soil sample(s) are below the site adopted criteria, the area will be deemed as validated. Surface soil identified to contain bonded ACM is required to be stripped as part of bulk earthworks as further discussed below. The treated surface soil is considered suitable for reuse subject to retention at the site a depth greater than 0.1 m bgs or below pavements. Sufficient data in the form of observations, material tracking records and survey data are required to be collected to verify placement of material.
- All ACM fragments collected during 'picking' will be required to be bagged in accordance with NSW Safe Work's code of practice and then disposed offsite in accordance with NSW EPA Waste Classification Guidelines. Disposal dockets will be required to be provided to the Environmental Consultant to confirm the appropriate disposal.

Following the remediation/validation process as described above, surface soil stripping required in these areas as part of bulk earthworks shall be undertaken under the supervision of the Environmental Consultant. The following remediation shall be undertaken on bonded ACM impacted surface soils if significant amounts of bonded ACM are identified during the pre-remediation inspection (and subsurface soils above criteria):

- Excavation of impacted soils to the lateral and vertical extent by the contractor, until the environmental consultant confirms soil meets the validation criteria (**Section 7.3**);
- Excavation shall be undertaken under the direction and supervision of the Environmental Consultant to assist in determination of the excavation extent and depth required;
- Excavated soils shall be stockpiled on a hardstand/plastic liner or similar, pending on site containment under proposed roadways within a properly designed barrier and ongoing management as per the containment cell contingency strategy subject to endorsement by relevant stakeholders as outlined in **Section 8.2.9**; and
- Any unexpected finds will be managed as per **Section 8**.

6.2.5 Bonded ACM Identified in Subsurface Soils

ACM impacted subsurface soils at TP083, TP183B where not co-located with waste materials, TP183C, TP183D may be remediated via the following method.

- Excavation and removal of the estimated extent of ACM impact as per **Section 5.2** by the contractor;
- Spreading the ACM impacted soils into 0.1 m thick pads, preferably in 10 by 10 m areas;
    - Pads to be placed on designated areas, preferably on hardstand to prevent cross contamination to underlying soils;
    - Following completion of pad picking the pad footprint will be required to be visually cleared and sampled (if not on hardstand) by a competent person or LAA. Sampling shall be completed on a 1/100 m^2 ratio across the pad footprint;
    - Subject to confirmation and clearance by the competent person or LAA confirming that no visible ACM is present and no asbestos is detected in soil samples at concentrations above the site adopted criteria, pad footprints can be cleared for non-asbestos associated works to commence.
- Hand picking of the spread soils by appropriately trained and licensed asbestos removalists using a rake to enable inspected and picking of all soils;
- Pickers to walk and rake the pad in 1 m transects and place any ACM into an asbestos bag for appropriate offsite disposal;
- Following picking a validation inspection will be completed by an environmental consultant/ competent person who shall walk the pad a minimum of two sets of 1 m spaced transects set at right angles;
- If bonded ACM is identified, surface soils are required to be walked and picked, and re-inspected, until such time as visual validation is obtained;
- Additionally, the Environmental Consultant will collect a 500 mL asbestos soil validation sample from each pad at a ratio of 1 sample per 10 m^3;
- Provided there is no visible asbestos remaining and asbestos soil sample(s) are below the site adopted criteria, the pad will be deemed validated and suitable for reuse subject to retention at the site a depths greater than 0.1 m bgs or below pavements. Sufficient data in the form of observations, material tracking records and survey data are required to be collected to verify placement of material.
- All ACM fragments collected during 'picking' will be required to be bagged in accordance with NSW SW code of practice and then disposed offsite in accordance with NSW EPA Waste Classification Guidelines. Disposal dockets will be required to be provided to the Environmental Consultant to confirm the appropriate disposal.

6.2.6 Management of Materials of Aesthetic Concern in SP01 to SP04

Aesthetic issues have been identified in stockpiled fill and relating to anthropogenic inclusions. The following general work methodology shall be followed to resolve the aesthetic concerns:

- Excavation of the in-situ soil marked by Environmental Consultant for temporary stockpiling in accordance with **Section 9.5**;
- Upon removal of the impacted material, the Environmental Consultant shall observe exposed soils including stockpile footprints for potential impact indicators. Where aesthetic impacted soils are identified the excavation shall continue across the area of impacted soils, with all excavated soils progressively stockpiled;
- The resulting excavation will require validation in accordance with **Section 7**, and **Table 7.3**;

- The contractor will then sieve the excavated material (with maximum sieve size of approximately 75 mm) and remove all aesthetics impacts following which the treated soils are to be inspected and validated by the Environmental Consultant as per **Section 7**;
- Following successful management, the treated soils will be evaluated by the contractor for engineering suitability for reuse; and
- The separated materials of aesthetic concern will be disposed offsite to a suitably licensed facility.

Where the material is unable to be retained for other reasons (i.e. surplus to site requirements or geotechnical concerns) consideration will be given to offsite disposal of material to a licensed waste facility.

6.2.7 Offsite Disposal of Material

Any contaminated soils or other waste generated during remediation to be disposed off-site shall be classified in accordance with EPA (2014) Waste Classification Guidelines.

Should natural soils/bedrock require off-site disposal then these shall also be classified in accordance with EPA (2014) Waste Classification Guidelines or an appropriate exemption as created under the Protection of the Environment Operations (Waste) Regulation 2014.

Waste certificates will be prepared for each stockpile and/or material type that is to be disposed. Disposal of waste to licensed waste facilities in accordance with relevant waste regulations will be undertaken by the Remediation Contractor and the waste facility must be lawfully licensed to receive the material sent to it for disposal.

All waste tracking documentation including disposal dockets must be maintained by the Remediation Contractor and must be provided to the client's representative and Environmental Consultant for inclusion in the validation report.

Any asbestos waste exceeding 100 kilograms or more than 10 m^2 of bonded ACM in one load disposed off-site must also be tracked using the NSW EPA online system Integrated Waste Tracking Solution (IWTS).

6.2.8 Asbestos Management

Based on the available characterisation information as discussed in **Section 3**, fill materials in portions of the site are impacted with asbestos. Asbestos contaminated soil necessitating management for potential asbestos exposure is defined in SWNSW (2022b[16]) as:

- Soil that contains visible asbestos as determined by a competent person; or
- Soil that contains asbestos fibres at quantities exceeding trace levels (considered to be the analytical detection limit in lieu of alternate guidance) as reported by analysis undertaken in accordance with AS4964:2004 Method for the qualitative identification of asbestos in bulk samples.

Environmental, health and safety management requirements for the handling of these materials has been documented in an Asbestos Management Plan (AMP) prepared as documented in JBS&G (2023c) based on the requirements provided for asbestos-related works in SWNSW (2022b), inclusive of an asbestos register and associated asbestos removal control/management plan.

Where sampling and analysis of specific fill materials is completed in conjunction with inspection by a competent person, and the results indicate the material does not fall within the "asbestos contaminated soil" definition, the requirements for management of "asbestos contaminated soils" will not be required to be implemented.

[16] *Code of Practice, How to safely remove asbestos*, SafeWork NSW, December 2022 (SWNSW 2022b)

For the purposes of remediation works within site, a competent person shall be considered to be a person who holds a tertiary degree in a science of engineering discipline, has experience in contaminated site assessment, has completed a WorkSafe approved Asbestos Removal Supervisor course.

6.2.9 Material Importation

Based on the scope of remedial works described herein, and the bulk excavations plan available for the project (Indesco 2024[17]) it is anticipated that materials will be required to be imported to site as a result of construction requirements or otherwise to ensure appropriate growing media are established within the landscaped areas as proposed on the site.

Prior to importation of all material, appropriate assessment of such materials must be completed to demonstrate the material is both fit for purpose and suitable from a contamination view point (**Table 7.3**). All materials proposed to be imported to site must be accompanied by appropriate supporting documentation which demonstrates the materials conformance to all regulatory requirements. The Environmental Consultant shall review the supporting documentation as made available by the Remediation Contractor and advise whether the material and documentation satisfy all regulatory requirements and is suitable for importation and use at the site. In accordance with EPA requirements, the extent of assessment will be determined by the type of material proposed to be imported.

Where material proposed to be imported is Virgin Excavated Natural Material (VENM), an assessment must demonstrate that the material is compliant with the definition of VENM as presented in the POEO Act 1997, adopting in the minimum requirements for characterisation of fill material as presented in EPA (2022a).

Where material proposed to be imported has been characterised under the Resource Recovery Framework (Order/Exemption), the material must firstly be demonstrated by the supplier as suitable for use in accordance with the requirements of the Order via provision of a statement of compliance. Suitable materials are anticipated to comprise but will not necessarily be limited to: excavated natural material – ENM, recycled aggregate, basalt fines, compost, mixed organic waste, pasteurised garden organics and recovered fines, with reference to the list of current orders and exemptions on the NSW EPA website.

In addition to the testing completed by the supplier, given the low frequency of compliance testing required under these Exemptions, the specific material proposed to be imported will require an additional compliance assessment prior to approval to import. The additional assessment is required to ensure that the incoming material does not pose an unacceptable risk to human health and/or environment at the placement site and is therefore suitable for use. It is anticipated that such assessment activities will include visual inspections, representative sampling and laboratory analysis (including asbestos as per NEPM/DOH) of material to demonstrate the material meets the requirements of this RAP. As for VENM assessments, it is considered suitable to define such requirements on a specific site basis given the potential variability of project site requirements.

Material approved for importation shall be routinely inspected by the Environmental Consultant following importation to site to verify consistency with that originally investigated and approved for importation.

In the event materials do not meet the requirements detailed above, materials will not be approved for importation to the site and an alternative Source Site will need to be provided by the Supplier and be investigated to confirm conformance. Material tracking records in addition to the import assessment report are required to be included in the final validation report for the site.

6.2.10 Surveying

A qualified surveyor will be required to conduct surveying of excavations, stockpiles and remedial extent as required by the Client's representative such that the remedial/validation objectives can be achieved.

[17] Bulk Earthworks Plan, Sheet 1 to 5, Rev A, Indesco Pty Ltd 16/02/2024

6.3 Validation

Validation of the remedial works will be conducted by the Environmental Consultant to demonstrate the remediation/management objectives have been achieved and to document the final condition of the site at the completion of works such that conclusions may be drawn on the end use suitability of the site for the proposed high school. Details of the validation program are provided in **Section 7**.

6.4 Site Dis-establishment

On completion of the remediation works, all plant/equipment and safety/environmental controls should be removed from the site. Equipment used during asbestos remediation works will need to be appropriately decontaminated or disposed of as asbestos waste by the Remediation Contractor, in accordance with SWNSW (2022a[18]), EPA (2014) and relevant waste regulations.

[18] *Code of Practice, How to manage and control asbestos in the workplace*, SafeWork NSW, December 2022 (SWNSW 2022a)

7. Validation Plan

7.1 Overview

Validation data is required to be collected to verify the effectiveness of the remedial works and document the final site conditions as being suitable for the proposed future use.

The following sections establish the DQOs to be adopted during validation of the site remediation works.

7.1.1 State the Problem

Previous investigations have identified asbestos impacted soils at the site which require remediation to make the site suitable for the proposed high school. In addition, fly tipped material stockpiles of unknown origin have been observed in the site.

To appropriately demonstrate that the remedial/management works have been completed in accordance with this RAP, sufficient data in the form of observations, sample analytical data, material tracking records, survey data, disposal docket, etc. are required to be collected and assessed in a defensible manner.

7.1.2 Identify the Decision

The decisions which are required to be made for validation of the site are as follows:

- Are there any unacceptable risks to future human site receptors, associated with heavy metal and asbestos impacts in site media, following the remediation of soils?
- Are there any aesthetic issues following remediation works?
- Has all material imported to site to achieve development objectives been demonstrated as suitable for use?
- Was waste or excess excavated soil classified and disposed of offsite to a facility licensed to accept the classified waste?
- Have the works been completed in accordance with the RAP, or where variations to the works were required, have these met the objectives of the RAP?
- Is the site suitable for the proposed land uses without any requirement for ongoing management of contamination, or alternatively where material has been contained onsite is the site suitable subject to an ongoing EMP?

7.1.3 Identify Inputs to the Decision

The inputs to the decision are:

- Previous investigation results as discussed in **Section 3**;
- The proposed activity and final proposed land form and site features;
- Field observations in relation to inspection of all excavation bases, walls, stockpiles and final site surfaces for signs of impacts, aesthetic impact, or other indicators of potential contamination;
- Environmental data as collected from the validation of remedial excavations (if required as part of an unexpected find) and stockpiles of material the subject of onsite treatment;
- Material characterisation data obtained during assessment of contaminated material for off-site disposal and/or surplus material prior to off-site beneficial re-use or disposal;
- Disposal dockets and relevant documents in relation to appropriate disposal of material (if required) to be removed from site as part of the remediation works (landfill dockets, EPA Waste Locate, beneficial reuse / recycling dockets, trade waste disposal, etc.);

- Material characterisation data (including field observations, sampling and analytical data) obtained during assessment of material proposed to be imported to the site;
- Relevant guideline criteria for validation and waste classification;
- Management measures documented within an Asbestos Register/Management Plan (if required) to ensure compliance with WHS legislation; and
- Data quality indicators (DQIs) as assessed by quality assurance / quality control (QA/QC).

7.1.4 Define the Study Boundaries

The site boundaries are defined in **Section 2.1** and presented on **Figures 1** and **2**. The vertical extent of the works will be the maximum depth of remedial excavations (refer to **Section 5.2**).

Validation works will be completed over the course of remedial works and any earthworks or civil works completed up to the time of validation.

7.1.5 Develop the Decision Rules

The decision rules adopted to answer the decisions identified in **Section 7.1.2** are discussed below in **Table 7.1** following.

Table 7.1 Decision Rules

Decision Required to be Made	Decision Rule
1. Are there any unacceptable risks to onsite or offsite receptors following the remediation of impacted soil?	Soil validation data shall be collected of the walls and base of excavations and treated material/soil proposed for reuse onsite with comparison of the subsequent laboratory data (see also **Section 7.3.4**) with adopted site validation criteria relevant for the proposed land use. If the soil validation results for each data set meet the adopted validation criteria, then the answer to the question is **No**. If the soil validation results fail the adopted validation criteria for one or more datasets, then the answer to the question is **Yes**. Further remedial works may be undertaken in this instance, with a subsequent repeat of the validation process.
2. Are there any aesthetic issues remaining following remediation works?	If the final site surface and near surface soils are free of aesthetic impacts, asbestos impacts and absent of significant odours or otherwise visual indicators of staining, the answer to the decision will be **No**. Otherwise, the answer to the decision will be **Yes**, and aesthetic issues will be subject to implementation of further remedial actions or implementation of the Management of Aesthetics procedures included in **Section 6.2.7**.
3. Has all material imported to site to achieve development objectives been demonstrated as suitable for use?	Analytical data sets and inspection data will be reviewed for each proposed material type/source against established definitions for acceptable material (i.e. VENM, resource recovery exemptions, etc) and EPA endorsed criteria as established in the RAP as validation criteria. If the complete data set for the applicable material meet the requirements relevant to the material type, the answer to the decision is **Yes** and material may be imported to site. If the data set exceeds the adopted criterion, the answer to the decision is **No** and the material cannot be imported to site for use in site activities.
4. Was waste or excess excavated soil classified and disposed of offsite to a facility licensed to accept the classified waste?	All material disposed from the site is required to be accompanied by adequate characterisation data (as appropriate) and waste classification (for soils).

Decision Required to be Made	Decision Rule
	Documentation from the operation receiving the material including the dates, tonnage/volume and classification of the accepted material will be required to facilitate the decision. If the criteria stated above are satisfied, the decision is Yes, and if receipts are provided recording the disposal of material to an off-site licensed facility, the decision is **Yes**. If the material exceeds the criteria, and no disposal receipts are provided, the answer is **No**.
5. Have the works been completed in accordance with the RAP, or where variations to the works were required, have these met the objectives of the RAP?	Evaluation of the RAP requirements and completed scope of works will be completed on a qualitative basis. If the works are inconsistent with the stated objectives, the answer is **No**. Otherwise, the answer to the decision is **Yes**.
6. Is the site suitable for the proposed land uses without any requirement for ongoing management of contamination?	If the answer to questions 1 and 2 of the above is No, and the answer to questions 3 to 6 of the above is Yes, then the answer to the decision is also **Yes**. Otherwise, the answer to the decision is **No**. In this instance further remediation/ management actions will require to be implemented and appropriately documented such that a future review of the above decisions may result in a different decision outcome.

7.1.6 Specify Limits of Decision Error

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project must be appropriate to allow decisions to be made with confidence.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA, NEPC (2013), appropriate data quality indicators (DQIs used to assess quality assurance / quality control) and standard JBS&G procedures for field sampling and handling.

To assess the usability of the data prior to making decisions, the data will be assessed against pre-determined DQI) established for the project as discussed below in relation to precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters). The acceptable limit on decision error is 95% compliance with DQIs.

The DQIs and data assessment criteria are summarised as presented in **Table 7.2**.

- **Precision** – measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- **Accuracy** – measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- **Representativeness** – expresses the degree which sample data accurately and precisely represent a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- **Comparability** – expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.

- **Completeness** – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- **Sensitivity** – expresses the appropriateness of the chosen field and laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

If any of the DQIs are not met, further assessment of the data set will be required in order to determine whether the non-conformance has significant effects on the usefulness of the data. Corrective action to correct an adverse impact on the reliability of the dataset may include, but is not limited to, the request of further information from samplers and/or analytical laboratories, downgrading of the quality of the data or alternatively, re-collection of the data.

Table 7.2 Summary of QA/QC Control Program

Data Quality Indicator	Frequency	Data Quality Acceptance Criteria
Precision		
Blind duplicates (intra laboratory)	1 / 20 samples	<30% RPD or agreement between asbestos presence/absence
Blind duplicates (inter laboratory)	1 / 20 samples	<30% RPD or agreement between asbestos presence/absence
Accuracy		
Surrogate spikes	All organic samples	70-130%
Matrix spikes	NA for asbestos analysis. Otherwise 1 per lab batch.	70-130%
Laboratory control samples	1 per lab batch	70-130%
Representativeness		
Sampling appropriate for media and analytes	All samples	All samples
Samples extracted and analysed within holding times.	-	NA for asbestos, organics (14 days), inorganics (6 months)
Laboratory Blanks	1 per lab batch	<LOR
Trip spike	1 per sampling event targeting volatiles	70-130% recovery
Trip blank	1 per sampling event targeting volatiles	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, sampling staff and laboratory analysis	All samples	All samples
Limits of reporting appropriate and consistent	All samples	All samples
Completeness		
Soil description and COCs completed and appropriate	All samples	All samples
Appropriate documentation	All samples	All samples
Satisfactory frequency and result for QC samples	-	95% compliance
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Field and analytical methods and limits of recovery appropriate for media and adopted site assessment criteria	All samples	At least 10L per field AQ sample. LOR < Site assessment criteria (where possible)

Note: If the RPD between duplicates is greater that the pre-determined DQI, a judgement will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field. For asbestos agreement, the highest concentration of the primary, duplicate or triplicate samples will be recorded as the result for that sample location, thus eliminating any non-conformance between primary, duplicate and triplicate samples.

7.1.7 Optimise the Design for Obtaining Data

The purpose of this step is to identify a resource-effective field investigation sampling design that generates data that are expected to satisfy the performance criteria, as specified in the preceding steps of the DQO Process.

For these works, following excavation and associated impacted soil, the resultant excavation walls and base will be inspected/sampled by the Environmental Consultant in accordance with **Table 7.3** with the results assessed against the adopted validation criteria as discussed in **Section 7.3**. The resulting excavated material will be reviewed against site validation criteria (**Section 7.3**), to assess suitability for on-site retention or characterised based on the waste classification criteria set out in EPA (2014a) to enable off-site disposal.

Imported materials (where/if required) will also require validation to ensure their appropriateness (from a contamination perspective) for use on the site. General sampling densities are outlined in **Table 7.3**, to be confirmed based on the specific material types to be imported at the time of the remediation works.

Table 7.3 Validation Sampling and Analytical Plan

Item	Sampling Frequency			Analytes
	Excavation Base	Excavation Walls	Materials	
Pre-Remediation Investigations				
Site wide pre-remediation inspection	N/A	N/A	N/A	Visual inspection of surfaces by Competent Person or LAA following vegetation removal
Assessment of dam sediments and embankment fill	N/A	N/A	Minimum one sediment and embankment fill sample/ dam	Heavy metals TRH/BTEX PAH OCP Asbestos (500 mL)
Assessment of existing building/slab footprints	1/100m^2	N/A	N/A	Lead OCP Asbestos
Earthen/gravel accessways (shown on **Figure 4**)	N/A	N/A	N/A	Visual inspection of surfaces by Competent Person or LAA following vegetation removal
Surface debris	N/A	N/A	N/A	Visual inspection of surfaces by Competent Person or LAA following vegetation removal
Validation/Characterisation				
Validation of asbestos and waste impacted soil excavation in the vicinity of TP183B	1 sample / 100 m^2	1 sample / 10 linear metres	N/A	Heavy metals TRH/BTEX 10 L field AQ and Asbestos (500 mL)
Validation of asbestos impacted soil	1 sample / 100 m^2	1 sample / 10 linear metres	N/A	10 L field AQ and Asbestos (500 mL)
Validation of picking pad footprints (if not on hardstand)	1 sample /100 m^2	N/A	N/A	Visual inspection by Competent Person or LAA as per **Section 6.2.5**. 10 L field AQ and Asbestos (500 mL)

Validation of Bonded Asbestos impacted excavations	1 sample / 100 m^2	1 sample / 10 linear metres	N/A	Visual inspection of surfaces by Competent Person or LAA as per **Section 6.2.5** – Asbestos (500 mL NEPM) if confirmed to be natural strata by the Environmental Consultant 10 L field AQ and Asbestos (500 mL NEPM) (if fill)
Validation of Aesthetic impacts (in situ and within stockpiles SP01, SP02, SP03, SP04)	N/A	N/A	N/A	Visual for aesthetic impacts
Footprint of asbestos impacted stockpiles (if not placed on hardstand)	1/25 m^2, minimum one per stockpile	N/A	N/A	Visual inspection of surfaces by LAA or competent person, Asbestos (500 mL NEPM) To include heavy metals and TRH/BTEX if waste is co-located with asbestos in stockpiles
Soil/Fill Requiring Off-Site Disposal				
Characterisation of excavated materials requiring off-site disposal	N/A	N/A	Minimum of 3 samples and otherwise meet requirements of EPA (2022)	Heavy Metals TRH/BTEX PAHs OCPs/PCBs Asbestos (ID) TCLP Heavy Metals TCLP PAHs
Material Importation				
Imported VENM (other than sourced from a licensed quarry)	N/A	N/A	Minimum of 5 samples per material types/source site Inspection following importation to site.	Heavy Metals TRH/BTEX PAHs OCPs/PCBs Asbestos (500 mL)
Imported material the subject of a resource recovery exemption	N/A	N/A	As per exemption requirements, plus minimum of 5 samples per material type/source site Inspection following importation to site.	Heavy Metals TRH/BTEX PAHs Asbestos (500 mL) In addition to suite as required by exemption
Growing Media	N/A	N/A	Minimum 1/70 m^3 with a minimum of three samples per source Inspection following importation to site.	Heavy Metals TRH/VOC PAHs OCP/PCB Asbestos (500 mL) pH, cation exchange capacity (CEC) and percentage clay
Unexpected Finds				
Assessment of unexpected find and/or validation of	1/25 m^2 (5 m grid), minimum one per	1 sample per wall per	1/25 m^3 to 200 m^3, then as per	Appropriate COPC (may include but not

excavations formed by unexpected finds	excavation	media, with minimum spacing of one per 5 linear metres	Table 4 *Sampling design part 1 - application* (EPA, 2022a)	limited to Heavy Metals TRH/BTEX, PAHs OCPs/PCBs Asbestos (500 mL) + 10L AQ

7.2 Soil Sampling Methodology

7.2.1 Validation of Excavation(s)

Samples will need to be collected by an appropriately trained and experienced environmental scientist/engineer using hand tools or from the bucket of mechanical excavation equipment, at the required densities to meet the project DQOs.

Prior to collection of each sample, hand tools will need to be thoroughly decontaminated using phosphate free detergent and distilled water as per **Section 7.2.7**.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indicators of contamination will need to be noted on the field documentation.

7.2.2 Material Tracking

The movement of all materials to or from the site or for reuse or containment within the site, is required to be conducted in accordance with a Material Tracking and Management Plan (MTMP). The MTMP should be reviewed by the Site Auditor. The MTMP shall be administered by the Environmental Consultant with the provision of all required information by the Remediation Contractor and will generally contain the following elements:

- Date (yyyy/mm/dd);
- Site figure showing source (cut) and placement (fill);
- Estimated volume (cubic metres);
- Type of material (e.g. VENM etc);
- Depth of source (RL);
- Depth of placement (RL);
- Source (from) information in terms of MGA56 co-ordinates as established by site GPS and/or survey;
- Placement (to) information in terms of MGA56 co-ordinates as established by site GPS and/or survey;
- Source (from) information in terms of site feature (e.g. Building X);
- Placement (to) information in terms of site feature (e.g. under future basement);
- Reference document (where necessary, i.e. virgin excavated natural material / excavated natural material classification);
- Purpose of placement (i.e. containment, surplus to site requirements etc); and
- Comments (when required).

7.2.3 Stockpile Sampling

For stockpile sampling, material will be obtained from a minimum depth of 0.5 m below the surface of the stockpile at the time of sampling, and ensuring three dimensional sample distribution, consistent with EPA (2022) and NEPC (2013) requirements. Appropriate decontamination activities shall be followed following the collection of each sample.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indications of contamination will be noted on the field documentation.

7.2.4 Sampling for Asbestos Assessment

Where assessment of the quantity of ACM in soil is required for comparison with validation criteria, consistent with NEPC (2013) guidance, bulk soil samples (minimum 10 L) will be collected at each sampling location. Collected bulk sample will be sieved in the field (≤7 mm passing) and separated fragments retained and weighed in the field, or spread out on contrasting plastic. The asbestos concentration as ACM in soil will be calculated in accordance with NEPC (2013) and based on the weight of collected fragment/s (assuming 15% asbestos content) divided by the weight of the collected 10 L soil sample, providing a w/w%.

A separate 500 mL soil sample will be collected from the same location as a bulk sample, labelled and sent to the laboratory for asbestos analysis according to NEPC (2013) protocol.

Validation criteria will be adopted in accordance with NEPC (2013) for the proposed land use, noting that all visually asbestos impacted fill will be excavated for off-site disposal to manage WHS considerations during development and the absence of ongoing asbestos management requirements upon completion of remediation works.

7.2.5 Duplicate and Triplicate Sample Preparations and QA/QC Requirements

Field duplicate and triplicate samples for the characterisation/validation assessment will be obtained during sampling using the procedures outlined at a frequency outlined in **Table 7.2**. The primary sample will be divided laterally into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in three clean glass jars and / or plastic bags. All jars will be filled completely with no headspace to reduce the potential for loss of volatiles and separately labelled as the primary, duplicate and triplicate samples before being placed in the same chilled esky for laboratory transport.

Trip spike, storage blank and rinsate samples will be collected where analysis for volatile compounds is required.

7.2.6 Sample Handling

Collected samples will be immediately transferred to sample containers of appropriate composition (glass jars for chemical analysis, plastic bags for asbestos). Sample labels recorded: job number; sample identification number; and date of sampling.

Sample containers will be transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form will be completed and forwarded with the samples to the testing laboratory.

7.2.7 Sampling Equipment Decontamination

The following procedure will be used to clean non-disposable equipment, including the trowel, pick etc., prior to the collection of each sample:

- Scrubbing with a wire brush to remove gross contamination;
- Washing with Decon 90 detergent and potable water mix; an
- Rinsing with potable water.

Rinsate samples will be obtained during the field decontamination procedures at regular intervals during characterisation/validation sampling activities (which include reusable equipment). Each rinsate sample will be obtained by rinsing the trowel with laboratory grade demineralised water following the decontamination procedure. The water sample will be appropriately preserved and stored with the site samples prior to transport to the laboratory for chemical analysis.

7.2.8 Validation of Removal of Aesthetic Materials including ACM

A clearance inspection shall be conducted by a suitably qualified Environmental Consultant following excavation/removal of aesthetic materials to confirm the full extent of aesthetic materials has been removed. This shall include photographic records for inclusion in the validation report.

The inspection shall be completed by walking a minimum of two sets of 1 m spaced transects set at right angles.

7.2.9 Validation of Unexpected Finds

The procedure described below shall be required if unexpected, impacted soils requiring remediation and validation are identified during the works, consistent with the unexpected find protocol presented in **Section 8.1** and **Figure 8.1**.

Samples will be collected and analysed in accordance with the analytical schedule (**Table 7.3**) by NATA accredited laboratories.

A suitably qualified Environmental Consultant will be required to assess unexpected finds and undertake the validation inspections and sampling to verify such finds have been addressed and the areas meet the validation criteria in this RAP.

7.3 Validation Criteria

7.3.1 Soil Validation Criteria

As discussed, it is anticipated that the site will be developed for use as a high school, which is equivalent to recreational / open space land use, with COPC for potential vapour intrusion assessed for residential land use. In accordance with the decision process for assessment of urban redevelopment sites (EPA 2017), validation criteria sourced from the publications have been adopted:

- Health Investigation Levels (HILs) for recreational (HIL C) land use;
- Soil Health Screening Levels (HSLs) for Vapour Intrusion, Low-High density residential (HSL A & B) land use;
- HSLs for asbestos levels in soil for recreational (HSL C) land use;
- Site specific ecological investigation levels (EILs) derived through the added contaminant limits for urban residential and public open space land use scenarios;
- Ecological Screening Levels (ESLs) for urban residential and public open space land use scenarios;
- Management limits for petroleum hydrocarbons for residential, parkland and public open space land use. Following the NEPM guidance, Management limits are considered only after HIL/HSLs and EIL/ESLs; and
- Aesthetic considerations.

The results of asbestos analysis are assessed in general accordance with NEPC (2013) including DOH (2009) guidance with regard to asbestos in soil.

In addition to the numerical criteria for chemical and asbestos contaminants, consideration shall be given to the aesthetic characteristics of material the subject of validation, including the presence of soils that are odorous or discoloured because of contamination, or otherwise contain significant quantities of non-soil inclusions (i.e. construction and demolition waste and similar).

7.3.2 Offsite Disposal Criteria

Where contaminated fill/soil is not suitable for onsite management or is surplus to construction requirements, materials are proposed to be remediated by off-site disposal. Materials shall be classified in accordance with EPA (2014) Waste Classification Guidelines or an appropriate exemption as created under the Protection of the Environment Operations (Waste) Regulation 2014.

7.3.3 Imported Soil Criteria

In accordance with current EPA policy, only material that does not represent an environmental or health risk at the receiving site may be considered for resource recovery. Imported materials required for the remediation works will only be accepted on the site if they meet this restriction and meet the definition of:

- VENM as defined in the Protection of the Environment Operations Act (1997) Schedule 1;
- ENM as defined in EPA (2014); or
- Resource recovery materials as per an EPA exemption.

All material imported onto the site is required to be accompanied by appropriate documentation that has been verified by the appointed Environmental Consultant. All materials will be required to be inspected upon import to the site by the appointed Environmental Consultant to confirm consistency with provided documents and/or consistency with observations made at the source site.

Sampling of materials as per an EPA exemption (e.g. ENM) is required to be undertaken by the facility in accordance with the relevant exemption. In addition, where materials are proposed for beneficial reuse under a NSW EPA exemption (i.e. imported to the site), fill material will need to be further assessed by an Environmental Consultant for land use suitability prior to placement on site.

Any material imported as growing media will need to meet ecological assessment criteria.

7.3.4 Statistical Criteria

Statistical analysis of the data will be completed, where necessary, in accordance with relevant EPA made/endorsed guidance, to facilitate data assessment. The statistical criteria below are noted:

Either:

- the reported concentrations are all below the site criteria;

Or:

- no single analyte concentration exceeds 250 % of the adopted site criterion; and
- the standard deviation of the results is less than 50 % of the site criterion; and
- the 95 % UCL of the average concentration for each relevant analyte is below the adopted site criterion.

Statistical assessment will not be undertaken for asbestos in soil.

7.4 Validation Reporting

At the completion of the remedial works a Validation Report will be prepared in general accordance with the NSW EPA Guidelines for Consultants Reporting on Contaminated Land (EPA 2020), documenting the works as completed. This report will contain information including:

- Results of previous investigations conducted at the site;
- Details of the remediation works conducted;

- Information demonstrating that the objectives of the RAP have been achieved, in particular the validation sample results and assessment of the data against both the pre-defined DQO and the remediation acceptance (validation) criteria;
- All material tracking data;
- Any variations to the strategy undertaken during the implementation of the remedial works; and
- Results of all environmental monitoring undertaken during the course of the remedial works;
- Details of any environmental incidents occurring during the remedial works and the actions undertaken in response to these incidents;
- Verification of regulatory compliance;
- Details on waste classification, tracking and off-site disposal including landfill dockets;
- The extent of impacted materials as retained on the site and subject to the long-term management provisions (as required); and
- Clear statement of the suitability of the site with respect to permissible land uses.

The report will serve to document the remediation and validation works for future reference.

Where remediation strategy identifies the requirement for a containment cell, a long-term environmental management plan (EMP) will be required to be generated for the site. Details for this long term EMP are included in **Section 8.2.13**.

8. Contingency Plan

A review of remediation works has been undertaken to identify potential risks to meeting the specified site validation criteria. A number of potential risks have been identified. These are listed in **Section 8.1** with contingencies that will be implemented to ensure that validation criteria are met.

Additionally, the associated remedial works health and environmental risks/hazards and their minimisation/mitigation are further discussed in **Sections 9** and **10**.

8.1 Unexpected Finds Protocol

It is acknowledged that previous works have been undertaken to identify contaminants of potential concern. However, ground conditions between sampling points may vary, and further hazards may arise from unexpected sources and/or in unexpected locations during remediation. The nature of any residual hazards which may be present at the site are generally detectable through visual or olfactory means, for example:

- friable asbestos and other contamination encountered outside the extent of known impacts, such as from hazardous building materials including asbestos and lead-based paints in building footprints following demolition;
- construction / demolition waste (visible) outside the known extent;
- other previously unidentified contaminated soils / fill materials (visible);
- bottles / containers of chemicals (visible); and
- odorous or discoloured soils.

As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned materials be identified (or any other unexpected potentially hazardous substance), the procedure summarised in **Figure 8.1** and detailed in the following sections is to be followed.

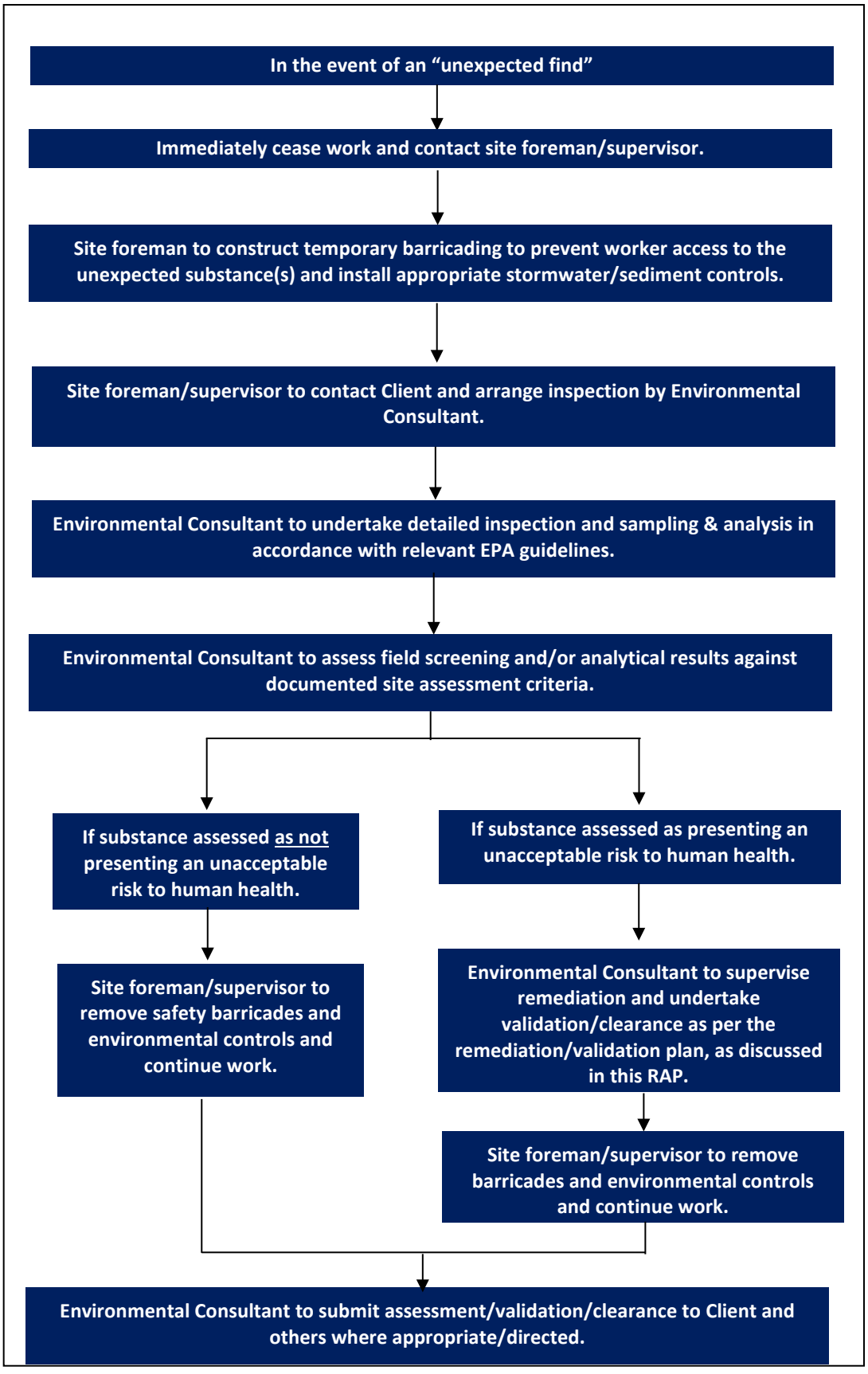
An enlarged version of the unexpected finds protocol, suitable for use on site, should be posted on site by the Client or Remediation Contractor.

The sampling strategy for each “unexpected find” shall be designed by a suitably qualified Environmental Consultant and should aim to determine the nature of the substance and whether it is at concentrations which pose an unacceptable risk to human health or the environment.

The sampling frequency of the identified substance/materials shall meet the minimum requirements outlined in EPA (2022a).

Where the preferred or contingent remedial strategies presented in this RAP may not be feasible based on assessment of an unexpected find, an alternate remedial strategy will require documentation, including any additional/alternate site management controls and validation requirements.

Figure 8.1 – Unexpected Finds Protocol



8.2 Contingency Scenarios

8.2.1 Friable Asbestos Impact

Should friable asbestos be observed or detected in soil, including fibrous asbestos or asbestos fines (FA/AF), the following procedure will apply.

Prior to commencing the asbestos removal works, the asbestos removal contractor who must hold a Class A licence will be responsible for setting up the worksite and implementing appropriate asbestos controls consistent with SafeWork NSW guidelines and procedures outlined in this RAP. This includes the necessary SafeWork NSW notification for friable asbestos removal works.

The friable and/or bonded asbestos impacted soils will be delineated under the direction and supervision of an Environmental Consultant (or LAA). The procedure for undertaking this excavation activity will be as follows:

- Observation of excavations and identification of impacted soils;
- Set up of airborne asbestos air monitoring by LAA, in accordance with **Section 9.8.1**;
- Excavation of impacted soils to lateral and vertical extent of physically identifiable impact, for validation sampling of excavation walls and base by the Environmental Consultant in accordance with **Table 7.3**, with additional removal of soils where impact extends laterally and vertically; and
- Impacted soils transferred to a temporary soil stockpiling area on the site or directly loaded into a truck for offsite disposal.

The excavation will be inspected by a LAA prior to sampling of the walls and base of each of the excavations for asbestos (500 mL per NEPC (2013)) and any other relevant COPCs where applicable. Where impacted material is temporarily stockpiled outside of identified impacted areas and is placed on plastic or geofabric, a visual inspection only of the stockpile footprint will be required following loading into trucks for disposal.

Friable asbestos impacted stockpiles shall be kept damp and covered if remaining onsite for more than 24 hours.

8.2.2 Non-asbestos Impacts

Soils identified as requiring remediation (non-asbestos impacts) as an unexpected find will be remediated as follows:

- The area will be designated by the Environmental Consultant, and the contractor will commence excavating soils;
- Excavation of impacted soils will occur to lateral and vertical extent designated by the consultant, at which point the consultant will take validation samples as per **Table 7.3**;
- Should validation samples fail, the excavation will be extended approximately 0.5 m laterally and 0.1 m vertically around the failed sample location(s) and additional validation samples taken consistent with **Table 7.3**; and
- Impacted soils transferred to a temporary soil stockpiling area on the site, pending off-site disposal or on-site containment under proposed roadways within a properly designed barrier and ongoing management, subject to the material being suitable for on-site containment.

Once validation is achieved, the consultant will advise the contractor that the excavation area can be reinstated with validated site-won or imported soil (**Section 6.3**), or reinstatement is not required for development levels the area can be made safe.

8.2.3 Remedial Strategy Failure

In the event that the proposed remediation works do not meet the validation criteria, or if the selected remedial strategy is not able to proceed, the following actions will be considered to ensure firstly the safety and health of people and the environment and secondly that the overall project objectives are achieved.

1. Reassessment of remedial and validation options for the proposed site area.
2. Continued surface picking for on-site remediation or controlled excavation for off-site disposal until validation is achieved.

8.2.4 Stockpile characterisation for on-site reuse or offsite disposal

Should any further fly tipped stockpiles be identified, characterisation sampling is required to demonstrate the suitability of the material for beneficial reuse on site, or alternatively to provide a waste classification for off-site disposal of material from the site.

The following general work methodology shall be followed:

- Collection of representative samples from the stockpiles and analysis as per **Section 7**;
- Assessment of the characterisation data against validation criteria for site soils and documentation of outcomes in advice to the client and remedial contractor on suitability of the material for reuse at the site (subject to geotechnical requirements); and
- Preparation of waste classification letters should the material require offsite disposal.

Should any indicators of potential impact be identified during the characterisation works, these will be managed via implementation of the unexpected finds protocol as per **Section 8**.

8.2.5 Change in Proposed Activity Plans

In the event that the proposed plans for the site are changed from those available at the time of preparation of this RAP, consideration of the suitability of the proposed remedial strategy will be required. Where a change in the remedial strategy is required, an addendum to the RAP will be required including rationale for selecting an alternative remedial approach, the remedial method/works, additional site controls, and specific validation requirements.

8.2.6 Material Storage Breach

In the event any stockpiled or capped materials escape (or have the potential to escape), then the management controls shall be rectified, and investigations undertaken to assess potential impacts, review the adequacy of the controls and document any improvements implemented.

8.2.7 Complaints

Due to the nature of the activities and type of contaminants identified at the site there is a potential for complaints to be received from members of the public relating to environmental emissions including:

- Dust during soil excavation, material handling and transport; and
- Noise and vibration from excavation.

Monitoring of all environmental emissions shall be undertaken as detailed in **Section 9** and appropriate actions taken to further control emissions following receipt of a complaint. Such additional controls may include the following actions:

- Disturbance of soils during meteorologically favourable periods only; and/or
- Increasing environmental controls including covering and/or wetting down soils which are generating dust and odours.

8.2.8 Severe Weather

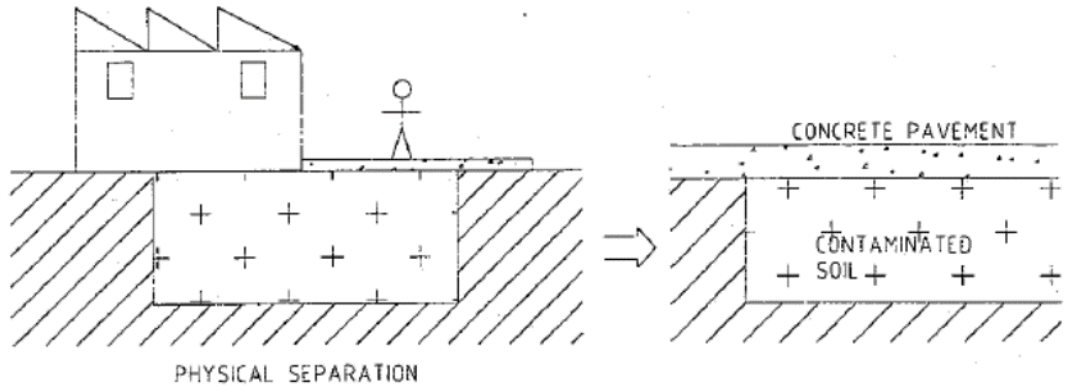
Weather will be monitored on a daily basis via checking an internet-based weather service provider. Should severe weather be forecast, especially strong winds, works will stop until safe to re- commence. All site management controls will be implemented to the extent practicable as outlined in **Section 9** prior to any severe weather events.

8.2.9 Containment Cell

Should larger than anticipated volumes of asbestos impacted soil be encountered through unexpected finds or if preferred remedial option of on-site treatment of bonded ACM impacted soil fails, asbestos impacted soils are preferred to be managed via containment and the implementation of permanent physical separation or within a "Containment Cell", which eliminates future exposures, is in some instances a potential opportunity, subject to agreement of the Client and relevant stakeholders.

Based on consideration to ANZECC (1999[19]), the minimum requirements for the physical separation to be adopted for onsite containment should include permanent concrete floor/ground/wall slabs or asphaltic concrete surfaced pavements and underlain by a visual "marker layer", i.e., underlying buildings, roads, pathways.

A conceptual sketch, sourced from ANZECC 1999, is shown following:



The marker layer shall consist of a bright coloured (orange or similar) non-woven polyester continuous filament or PET (such as nonwoven geotextiles) or similar with a minimum density of approximately 150 grams per square metre (or equivalent). The marker layer must:

- Be easily recognisable within soils (i.e., bright orange in colour);
- Be durable as a long term marker layer (i.e., > 140 grams per square metre); and
- Maintain integrity during remedial/civil works such as capping layer insulation and road/building construction.

Additionally, the marker layer must meet geotechnical and civil specifications where required.

The specific details of the marker layer are required to be included in the site validation report and EMP documents in addition to surveyed plans showing the extent of capped area within the site.

Material above the marker layer extending to the final finished ground level will be required to be environmentally suitable material for human and/or ecological exposure (as appropriate). This may include

[19] *Guidelines for the Assessment of On-site Containment of Contaminated Soil,* Australian and New Zealand Environment and Conservation Council, September 1999. (ANZECC 1999).

virgin excavated natural material (VENM) sourced from on-site, imported VENM, excavated natural material (ENM) or similar material certified in accordance with an exemption issued by the NSW EPA that also meets site suitability criteria.

Where a containment cell approach is to be adopted, prior to the commencement of works, a remedial works plan (RWP) including a capping specification document presenting the proposed location details, extent and specific capping requirements in relation to the proposed final ground surface treatment(s) will be prepared for review and endorsement by the Site Auditor. This document will provide sufficient information, including indicative construction drawings (plan and cross section) to ensure correct interpretation by the Remediation Contractor.

Validation of capping arrangements will be required as outlined in **Section 8.2.10**, including inspections by the Environmental Consultant, a survey plan prepared by a registered surveyor showing the level and lateral extent of the marker layer and permanent capping in relation to the site boundaries.

8.2.10 Validation of Retention of Impacted Soils Onsite

If larger than anticipated volumes of bonded ACM impacted soils are encountered as unexpected finds, a remedial method for the impacted soil is identified to be beneficial reuse / long term retention on the site subject to management conditions. This shall be undertaken as per a long-term containment strategy, subject to the agreement of relevant stakeholders.

A further objective of the site works will be minimisation of wastes as generated by the project. There is a likelihood as a consequence of the proposed site works, e.g. excavations as required to facilitate sub-surface service installation, that surplus soils will be generated during the site remediation and associated earthworks. Consideration may be given to assessment of surplus soils for beneficial reuse where the subject soils are free from asbestos.

The relocation of impacted soils / fill materials is proposed to be restricted to unsaturated horizons within the site only. The validation of the appropriate re-use of impacted materials within the site and the long-term management of the soils to control potential health, ecological and aesthetic risks will be dependent on material tracking (discussed further below) to inform the site validation. Additionally, consideration of placement and required management of asbestos and aesthetic impacts is as follows:

- Asbestos impacted soils to be relocated into a containment cell, such that they do not represent a health, ecological or aesthetic issue, and managed via an EMP.

8.2.11 Marker Layer Inspection

Visual inspection will be undertaken by the Environmental Consultant to verify the installation of the marker layer across the required area of the site. Photographic records and a survey of the marker layer installation, including vertical and lateral extents by the Remediation Contractor, will be retained for inclusion in the validation report.

8.2.12 Capping Layer Validation

Material to be used as a capping layer must be validated by the Environmental Consultant as environmentally suitable, consisting of VENM, ENM, suitable on-site materials (i.e. treated material or VENM from the site) or material considered suitable for beneficial reuse via a resource recovery exemption issued by NSW EPA. Additionally, contaminant concentrations in any capping layer material must not exceed the adopted site validation criteria for soils. The capping layer must be placed at the required thickness as noted in **Section 8.2.9**.

Photographic records and a survey of the capping layer installation, which details the final thicknesses of the capping layer, including the vertical and lateral extents must prepared for/by the Contractor and provided to the Client and Environmental Consultant for inclusion in the validation report.

Photographic records and a survey of the capping layer installation, which details the final thicknesses of the capping layer, including the vertical and lateral extents by the Remediation Contractor will be retained for inclusion in the validation report. As a minimum, the survey information to be included with validation report shall include:

- Final site (i.e. capping layer) levels;
- Survey of capping layer confirming it meets the requirements of the cell specification to be confirmed with client, council and auditor;
- Containment cell boundary relative to the site boundary; and
- The site boundary.

A visual inspection of the final surfaces will be undertaken by the Environmental Consultant and a photographic record will be obtained for inclusion in the validation report.

8.2.13 Long Term Environmental Management Plan (EMP)

In addition to the requirements of the validation plan, should the remediation strategy implementation result in onsite containment of material such that a long term environmental management plan (EMP) is required, this document will be required to address the following in accordance with EPA (2022c[20]). .

The precise nature and extent of the management requirements will not be known until remediation/management works are conducted and the validation data obtained. The EMP will be prepared for the relevant portions of the site following the completion of the validation report(s) such that the requirements may be reviewed by the appointed Site Auditor in preparation of the Part A Site Audit Statement (SAS).

The long term EMP(s) are required to document the following elements:

- A statement of the objectives of the EMP – i.e., to ensure continued suitability of the Site portion following remediation.
- Identification of residual environmental contamination issues at the Site that require ongoing management/monitoring to meet the EMP objectives, including the type of contamination and location within the Site (including a survey plan prepared by a registered surveyor).
- Documentation of environmental management measures which have been implemented to address the identified environmental issues at the Site.
- Description of management controls to limit the exposure of site users to known areas of contamination to acceptable levels.
- Description of responsibilities for implementing various elements of the provisions contained in the EMP.
- Timeframes for implementing the various control/monitoring, etc. elements outlined in the EMP.
- Environmental monitoring and reporting requirements (if required) for the future management of environmental impact underlying the Site including:
    - Appropriate monitoring locations and depth within and down-gradient of any residual contamination;
    - Relevant assessment criteria to be used in evaluating monitoring results;

[20] *Preparing environmental management plans for contaminated land, Practice note*, NSW EPA, EPA 2022P3473, January 2022 (EPA 2022c)

- Frequency of monitoring and reporting;
- Process for reviewing monitoring data and how decisions will be made regarding the ongoing management strategy;
- The length of time for which monitoring is expected to continue;
- The regulatory authorities involved, and the management inputs required from each;
- The integration of environmental management and monitoring measures for soil;
- Health and safety requirements for particular activities;
- A program of review and audits; and
- The provisions in the EMP are feasible (i.e., able to be implemented) and able to be legally enforceable (i.e., a mechanism exists, such as mitigation measures required under a Part 5 REF approval, to give the plan a basis in law); and

- Corrective action procedures to be implemented where the EMP assessment criteria are breached.

9. Site Management Plan

9.1 Contact Persons

Contact details for key personnel involved in remediation and validation works are summarised in **Table 9.1**.

Table 9.1 Contact Details

Client's Supervisor/Manager	Details
Name	To be advised
Company	To be advised
Address	To be advised
Contact Phone	To be advised
Remediation Contractor	Details
Name	To be advised
Company	To be advised
Address	To be advised
Contact Phone	To be advised
Environmental Consultant	**Details**
Name	To be advised
Company	To be advised
Address	To be advised
Contact Phone	To be advised

9.2 Hours of Operation

Remediation works shall only be permitted during the following hours, or as imposed by the REF, noting that where the hours below differ from those imposed by the REF, the construction hours imposed by the REF will be adopted:

- Monday to Friday: 7:00 am to 6:00 pm
- Saturdays: 7:00 am to 1:00 pm
- Sundays and Public Holidays: No work permitted.

Emergency work is permitted to be completed outside of these hours.

9.3 Soil and Water Management

All works shall be conducted in general accordance with Landcom (2004) [21] guidance (the Blue Book), which outlines the general requirements for the preparation of a soil and water management plan.

All remedial works shall be conducted in accordance with a soil and water management plan, which is to be kept onsite and made available to council officers on request. All erosion and sediment measures must be maintained in a functional condition through the remediation works by the Remediation Contractor.

The soil and water management plan should make reference to material tracking requirements to be undertaken in accordance with the MTMP as outlined in **Section 7.2.2**.

To prevent the migration of impacted soil off site, silt fences shall be constructed at the down-gradient site boundaries by the Remediation Contractor. Any material which is collected behind the sediment control structures shall be removed off site to a licensed waste facility after waste classification.

[21] *Managing Urban Stormwater: Soils and Construction*, Landcom 4th Edition, March 2004.

In storm or extended rainfall event, the structures located on site for sediment control shall be monitored and replaced or altered if necessary by the contractor. Collected material shall be managed in accordance with remediation works by the contractor.

9.4 Site Access

During remediation works, perimeter fencing will be maintained to restrict access to the works area. Only authorised persons will be able to enter the works area.

Vehicle access to the works area shall be stabilised to prevent the tracking of soil around the site and the adjoining driveway/access point to the road will be swept or cleaned on an as-needed basis. Any collected materials shall be treated as potentially contaminated and will be suitably managed.

9.5 Stockpiles

The following procedures will be implemented:

- No stockpiles or other materials shall be placed on footpaths or roadways and will be away from all stormwater infrastructure (including drainage lines, stormwater pits, gutters, etc) where possible. Where this is not possible, sediment controls will be placed over stormwater grates to prevent ingress of sediment to stormwater drainage lines.
- Stockpiles shall be formed with sediment control structures placed immediately down slope to protect other lands and waters from sediment pollution.
- All asbestos impacted soils will be covered with plastic or geotechnical fabric.
- Stockpiles of contaminated soils and/or soils containing asbestos shall be placed on plastic/geofabric or hardstand where possible. Following removal of contaminated stockpiles an inspection shall be conducted by the Environmental Consultant to confirm all materials have been removed and no impacts to underlying or adjacent areas has occurred. If soils are not placed on plastic/geofabric or hardstand stockpile footprint sampling will be required as per **Table 7.3**.

9.6 Excavation Pump Out

Excavation pump out water (if any) shall be pumped from the excavation by a licensed contractor and disposed of off-site as “liquid waste” in accordance with EPA (2014).

9.7 Noise

The remediation works shall comply with the NSW EPA’s Environmental Noise Control Manual for the control of noise from construction sites.

All machinery and equipment used on site will be in good working order and with the fitted with appropriate silencers when necessary.

9.8 Air Quality

9.8.1 Air Monitoring

Airborne asbestos fibre monitoring must be conducted during bonded asbestos remediation works where proximal to sensitive populations (e.g. close to residences or public areas) or any friable asbestos remediation, in accordance with requirements of the National Occupational Health and Safety Commission (NOHSC) Asbestos Code of Practice and Guidance Notes, in particular the guidance note for the estimation of airborne dust [NOHSC 3002:2005].

Where monitoring is required, the consultant shall undertake airborne asbestos fibres monitoring at a minimum of five static locations daily during remediation works that will disturb asbestos impacted or

contaminated materials. Monitoring locations will include site perimeter locations and downwind locations. Wind rose information available from the Bureau of Meteorology (BOM) for the nearest weather stations will be used to determine common prevailing winds in the area.

Air filters shall be analysed by a NATA accredited laboratory and results shall be required to be below 0.01 fibres/mL. All detections of fibres shall be further analysed by scanning electron microscope (SEM) to confirm the fibres are asbestos.

If respirable asbestos fibres are confirmed and present between 0.01 and 0.02 fibres/mL, the following controls must be implemented by the licensed asbestos removalist, in accordance with SWNSW (2022a):

- Review control measures;
- Investigate the cause; and
- Implement controls to eliminate or minimise exposure and prevent further release.

If respirable asbestos fibres are confirmed and present above 0.02 fibres/mL, the following controls must be implemented by the licensed asbestos removalist, in accordance with SWNSW (2022a):

- Stop removal work;
- Notify SafeWork NSW by phone, then by fax or written statement that work has ceased;
- Investigate the cause;
- Implement controls to eliminate or minimise exposure and prevent further release; and
- Do not recommence removal work until further air monitoring is conducted and fibre levels are detected below 0.01 fibres/mL.

A daily report air monitoring report will be prepared documenting the previous/same day's airborne asbestos fibre air monitoring results. This report will be made available to all relevant stakeholders and site workers.

9.8.2 Dust Control

During the remediation, dust levels will be monitored and minimised as necessary by using mist sprays or water spray application on the ground surface via watercart. Dust shall also be controlled by ensuring vehicles leave via the designated (stabilised) site access point.

9.8.3 Odour

No odours should be detectable at the site boundary. Appropriate actions will be taken to reduce the odours, which may include increasing the amount of covering of excavations / stockpiles, mist sprays, odour suppressants or maintenance of equipment.

Records of volatile emissions and odours shall be kept by the remediation manager. Equipment and machinery will be adequately maintained to minimise exhaust emissions. No materials shall be burnt on the site.

9.9 Groundwater

Based on the CSM, it is not anticipated that groundwater remediation and/or dewatering activities will be required as part of the remediation works. No approvals are required under the Water Management Act 2000.

Seepage water controls may be required to prevent shallow seepage water accumulation.

9.10 Material Transportation

The transporting contractor(s) shall ensure there is no material tracked outside of the site boundaries and that all loads are securely covered. In addition, all site vehicles must leave the site in a forward direction.

All appropriate road rules shall be observed, and state roads will be selected as far as practicable over local roads when deciding on the transport route to the off-site material disposal location.

Where material is to be imported, controls are to be implemented to maintain separation between contaminated and non-contaminated materials.

9.11 Hazardous Materials

All hazardous and/or intractable wastes (if any) shall be removed and disposed of in accordance with the relevant regulatory requirements. In particular, any hazardous wastes will be transported by a licensed transporter.

9.12 Disposal of Contaminated Soil

All soil will be classified, managed and disposed in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (EPA 2014), and Protection of the Environment Operation (Waste) Regulation (Waste Regulation).

9.13 Site Signage and Contact Numbers

Throughout the duration of the works appropriate signage shall be erected around the remediation area and stockpiles with the contact details of the Remediation Contractor and Client project manager.

9.14 Complaint Reporting and Resolution

Complaints from adjoining site occupants or workers on site will be directed initially to the civil/remediation contractor on site. Following that, discussion with the Environmental Consultant and the Client, and the complaint will be investigated and the issue remedied as required or as best able to be addressed.

10. Health and Safety Plan

This health and safety plan contains procedures and requirements that are to be implemented as a minimum during the remediation works.

The objectives of the health and safety plan are:

- To apply standard procedures that reduce risks resulting from the above works;
- To ensure all employees are provided with appropriate training, equipment and support to consistently perform their duties in a safe manner; and
- To have procedures to protect other site workers and the general public.

These objectives will be achieved by:

- Assignment of responsibilities;
- An evaluation of hazards;
- Establishment of personal protection standards and mandatory safety practices and procedures; and
- Provision for contingencies that may arise while operations are being conducted at the site.

This health and safety plan does not provide safety information specific to construction or excavation activities carried out by contractors, such as the safe operation, maintenance and inspection of plant, etc. Contractors will be required to prepare their own Safe Work Method Statements for their work activities. All parties working on the site shall comply with all applicable Health and Safety legislation, regulations, codes and guidelines.

10.1 Responsibilities

Remediation Supervisor

The remediation supervisor is responsible for ensuring that the work is carried out in accordance with the health and safety plan. This will include:

- Ensuring a copy of the health and safety plan is available at the site during the remediation/validation activities;
- Confirming individuals are competent in performing allotted tasks;
- Liaison with the contractor representatives, as appropriate, regarding safety matters; and
- Investigation and reporting of incidents and accidents.

Other Members of the Site Workforce

Every individual worker is responsible for conducting their allocated tasks in a safe manner and in accordance with their training and experience. They must give due consideration to the safety of all others in their proximity and cooperate in matters of health and safety. All workers must leave their work areas in such a condition that the location will not be hazardous to others at any time.

10.2 Hazards

Job Risk Assessments (JRAs) and Safe Work Method Statements (SWMS) will need to be supplied by the Remediation Contractor and incorporated into the Health and Safety plan detailing all the known or potential hazards associated with the work activities some are listed below.

10.2.1 Inhalation Hazards

The main inhalation hazards from the remediation/validation works are consequent of the presence of asbestos. Measures are required to be put in place to prevent/ minimise the generation of airborne fibres. These have been described in the environmental controls for the works. Where there is a potential for airborne emissions to be generated, PPE shall be required to be worn to prevent potential exposure, as described in **Section 10.3**.

10.2.2 Chemical Hazards

In addition to the previously identified asbestos hazards, chemical hazards may be identified at the site during remediation activities.

When working with contaminated materials in general, care must be taken to ensure that the contamination is not introduced to the worker via ingestion, inhalation or dermal absorption. PPE and decontamination requirements related to asbestos remedial works and summarised in **Sections 10.3** and **10.5** are sufficient for managing any potential exposure to typical contaminants that may be encountered on similar sites in western Sydney such as heavy metals, petroleum hydrocarbons or polycyclic aromatic hydrocarbons.

10.2.3 Physical Hazards

Operating Machinery

Heavy plant and equipment operating in the vicinity of field personnel presents a risk of physical injury. Personnel should be cognisant of their position in relation to operating machinery at all times.

Never walk behind or to the side of any operating equipment without the operator's knowledge. Do not assume that the operator knows your position. Personnel should stay at least 1 m from the operational area of heavy equipment and should not stand directly below any load or piece of equipment (e.g. backhoe/excavator).

Work In or Near Excavations

All excavations shall be shored, sloped or otherwise constructed so as to minimise the potential for collapse. Appropriate physical barriers should be erected during and on completion of excavations to prevent any personal entering the excavation area.

Cuts and Abrasions

The manual work associated with the remediation program may give rise to the risk of cuts and abrasions to personnel working in the area. As well as the direct consequences of any cut or abrasion, such injuries can lead to the possibility of exposure to contaminants through the wound as well as diseases such as tetanus. To minimise the risk of direct or indirect injury, personnel will wear the personal protective equipment described in **Section 10.3**.

Heat Stress and UV Exposure

Site personnel may experience heat stress due to a combination of elevated ambient temperatures and the concurrent use of personal protection equipment; this depends in part on the type of work and the time of year.

In addition to heat stress, overexposure to UV radiation in sunlight can result in sunburn to exposed skin. The use of a high protection sunscreen (SPF15 or greater) on all exposed skin is recommended. Hats (including hard hats in specified areas) will also provide additional sun protection during the peak (i.e. 10:00 am to 3:00 PM) sun period. Sunglasses should be worn (where appropriate) to protect eyes from effects of UV exposure.

Underground Services

There is the potential for underground services (electricity, natural gas lines, water, telephone, sewer, and stormwater) to be present beneath the work area. The Remediation Contractor shall ensure that appropriate procedures will be taken to minimise the risk associated with excavation near services.

Aboveground Electrical Hazards

All electrical plant and equipment must comply with the requirements of Australian Standard AS 3000. Hand held portable tools shall comply with AS/NZS 3160 "hand-held portable electric tools" and shall be double insulated. Cord connected portable hand lamps shall comply with AS/NZS 3118. A Residual Current Device (RCD) shall protect plug-in portable equipment, which is connected to a supply above Extra Low Voltage - 12-24volts (including equipment supplied from a generator or welding set). RCD protection shall be provided during maintenance of portable electrical equipment at all times while the equipment is connected to a power supply above Extra Low Voltage, irrespective of whether power is switched ON or OFF. RCD's shall comply with AS 3190 and shall be type II units, rated to trip at or below 30 milliamps within 40 milliseconds.

No excavator, drill rig or crane may work within 6 m of overhead distribution power lines.

Manual Handling

When lifting or handling heavy objects, use correct lifting techniques, bending the knees not the back. If the item to be lifted is too heavy or awkward for one person to lift, seek assistance from other company employees or use mechanical help.

Noise

Long-term exposure to high levels of noise is unlikely during this project. However, operating machinery may cause significant noise exposures for short periods. Earplugs or earmuffs should be worn in any situation where noise levels make normal conversation difficult.

10.3 Personal Protective Equipment

All workers who may come into direct contact with contaminated soil will wear the following minimum personal protective equipment (PPE):

- Overalls or long sleeved collared shirt;
- Heavy duty outer gloves (e.g. leather) where there is a risk of cuts or abrasions, otherwise PVC outer gloves if in direct contact with contaminated soil;
- Steel capped boots;
- Safety glasses;
- High visibility vest or jacket; and
- Hard hat.

10.4 Asbestos Air Monitoring Procedures

Non-friable ACM have been identified at the site. As discussed in **Section 9.8.1**, monitoring is required for movement and removal of friable asbestos, or where non-friable asbestos works occur close to public areas. Air monitoring for asbestos removal work can be beneficial as the results can be used:

- to identify failures in containment;
- to identify poor work practices; and
- to provide proof of containment for occupiers and regulatory authorities and to provide evidence of good work practices for both present and future needs.

Where undertaken, monitoring will be conducted in accordance with the National Occupational Health & Safety Commission (NOHSC) membrane filter method as approved by the National Association of Testing Authorities (NATA).

The appropriate TWA (NOHSC) levels are:

- Amosite - 0.1 fibre/mL;
- Chrysotile – 0.1 fibre/mL;
- Crocidolite - 0.1 fibre/mL;
- Other forms of asbestos - 0.1 fibre/mL; and
- Any mixture of these, or where the composition is unknown - 0.1 fibre/mL.

With consideration to these levels the following trigger levels have been developed:

- If airborne fibre levels reach 0.01 fibres/mL the source of fibre release is to be found and rectified. Work in the affected area does not have to stop; and
- If airborne fibre levels reach 0.02 fibres/mL work in the work area should stop and additional controls measures employed. This will involve additional water spraying during excavations.

Air monitoring results will be obtained within 24 hours of sample collection. While this precludes "real time" monitoring, inspections will be made during excavation works and, if there are any visible dusts, light water spays will be used to wet the excavation and prevent the release of any airborne asbestos fibres.

10.5 Decontamination Procedures

The decontamination procedures specified below will be followed whenever personnel, plant or equipment leave the site.

Personnel

The following steps should be taken to ensure personnel do not leave the site with potentially contaminated clothing:

1. Disposal of coveralls and respirator;
2. Wash boots in clean water;
3. Remove outer gloves and store for reuse;
4. Remove overalls (if used) and store for reuse;
5. Remove respirator and goggles (if used) and store clean for reuse or decontamination, as appropriate; and
6. Thoroughly wash hands and face.

If any part of a worker's body comes into direct contact with any potentially contaminated material, the affected part(s) should be immediately washed with clean water.

Vehicle, Plant and Equipment

All equipment, including personal protective equipment, will be washed or otherwise cleaned to ensure that contaminated soil, water or dust is removed before it leaves the Site. All plant and equipment will have their outer bodies thoroughly cleaned of soil and sediment before moving off the site.

10.6 Asbestos Management

Notwithstanding any part of the proposed requirements for occupational health and safety as outlined here – all works on the remedial site must be undertaken in accordance with relevant SafeWork NSW codes of practice.

Based on the available characterisation information as discussed in **Section 4**, fill materials in portions of the site are impacted with asbestos. Asbestos contaminated soil necessitating management for potential asbestos exposure is defined in SWNSW (2022b) as:

- Soil that contains visible asbestos as determined by a competent person; or
- Soil that contains asbestos fibres at quantities exceeding trace levels (considered to be the analytical detection limit in lieu of alternate guidance) as reported by analysis undertaken in accordance with AS4964:2004 Method for the qualitative identification of asbestos in bulk samples.

Environmental, health and safety management requirements for the handling of these materials will need to meet the requirements provided for asbestos-related works in SWNSW (2022b), inclusive of preparation of an asbestos removal control/management plan.

Where sampling and analysis of specific fill materials is completed in conjunction with inspection by a competent person, and the results indicate the material does not fall within the “asbestos contaminated soil” definition, the requirements for management of “asbestos contaminated soils” will not be required to be implemented.

For the purposes of remediation works within site, a competent person shall be considered to be a person who holds a tertiary degree in a science of engineering discipline, has experience in contaminated site assessment and has completed a SafeWork NSW approved Asbestos Removal Supervisor course.

10.7 Emergency Response

The Remediation Contractor will be responsible for preparing an emergency response plan, which will provide details on appropriate action and evacuation procedures in the event of an emergency.

In the event of an emergency arising on the site, appropriate action should be taken. Site evacuation procedures should be followed, as necessary.

In the event of an accident: evaluate the seriousness of the injury, and contact emergency services via 000, if necessary; provide first aid, as appropriate, and if safe to do so evacuate the injured person via the Decontamination Zone; make the area as safe as possible without jeopardising safety.

Following the above, if a serious accident occurs, do not disturb the scene, except to make safe and prevent further injury or damage, and keep all unauthorised people out, and report all accidents to the environmental consultant project manager and client’s representative.

11. Regulatory Approvals/Licensing

11.1 Remediation of Land – State Environmental Planning Policy (Resilience and Hazards) 2021

Development consent requirements for remediation works is addressed by reference to SEPP-RH and associated SEPP 55 Planning Guidelines. To identify whether the works fall within Category 1, works requiring consent, or Category 2 works not requiring consent, consideration is required to be given to a list of potential triggers for classification as Category 1 Remediation Works as discussed following. Should none of the triggers be activated, the works would fall into Category 2. Triggers for Category 1 works comprise:

- The work is considered to be Designated Development under Schedule 3 of the EPA&A Regulation or under a planning instrument.
- The work proposed is on land identified as critical habitat under the Threatened Species Conservation Act 1995.
- The remediation works will have a significant effect on threatened species, populations, ecological communities or their habitats (via consideration of s.5A of the EP&A Act.
- The work is proposed in an area or zone to which any classifications to the following effect apply under an environmental planning instrument:
    - coastal protection;
    - conservation or heritage conservation;
    - habitat area, habitat protection area, habitat or wildlife corridor;
    - environmental protection;
    - escarpment, escarpment protection or escarpment preservation;
    - floodway;
    - littoral rainforest;
    - nature reserve;
    - scenic area or scenic protection;
    - wetland, or
    - carried out or to be carried out on any land in a manner that does not comply with a policy made under the contaminated land planning guidelines by the council for any local government area in which the land is situated (or if the land is within the unincorporated area, the Western Lands Commissioner).
- The work requires consent under another SEPP or regional environmental plan.

Given the remediation works are proposed to be undertaken in conjunction with proposed high school, it is anticipated the works will be classed as “ancillary” and as such, approval will be provided for any required remediation works as part of the Part 5 approval process of the proposed activity.

11.2 Protection of the Environment Operations Act 1997 (POEO 1997)

The proposed remediation/validation activities are not required to be licensed under the *Protection of the Environment Operation Act 1997*, which is based on the following:

- The proposed remediation works will not treat more than 1,000 m^3 per year of contaminated soil received from off-site.

- The proposed remediation works will not involve the treatment of contaminated soil originating on-site with the capacity: (i) to incinerate more than 1,000 m^3 per year of contaminated soil, or (ii) to treat (otherwise than by incineration) and store more than 30,000 m^3 of contaminated soil, or (iii) disturb an aggregate area of 3 hectares of contaminated soil.

11.3 Protection of the Environment Operations (Waste) Regulation 2014

The regulations make requirements relating to non-licensed waste activities and waste transporting. The Waste Regulation stipulates special transportation, reporting, re-use and recycling requirements relating to soil and asbestos waste and must be complied with regardless whether the activity is licensed.

The requirements for the transportation of asbestos waste include:

- Bonded asbestos material must be securely packaged at all times;
- Friable asbestos material must be kept in a sealed container;
- Asbestos-contaminated soils must be wetted down; and
- All asbestos waste must be transported in a covered, leak-proof vehicle.

The transporter of asbestos waste must provide the following information to be given to the EPA prior to the transportation of asbestos waste loads:

- Source site details including address, name and contact details;
- Date of proposed transportation commencement;
- Name, address and contact details of disposal site; and
- Approximate weight of each class of asbestos in each load.

The transporter of asbestos waste must ensure the following information is given to the disposal site before or at delivery:

- Unique consignment code issued by EPA in relation to that load; and
- Any other information specified in the Asbestos and Waste Tyres Guidelines (EPA 2015).

The requirements relating to the off-site disposal of asbestos waste are as follows:

- Asbestos waste in any form must be disposed of only at a landfill site that may lawfully receive the waste,
- When asbestos waste is delivered to a landfill site, the occupier of the landfill site must be informed by the person delivering the waste that the waste contains asbestos,
- When unloading and disposing of asbestos waste at a landfill site, the waste must be unloaded and disposed of in such a manner as to prevent the generation of dust or the stirring up of dust,
- Asbestos waste disposed of at a landfill site must be covered with virgin excavated natural material or other material as approved in the facility's environment protection licence.

The Waste Regulation requires that wastes are stored in an environmentally safe manner. It also stipulates that vehicles used to transport waste must be covered when loaded.

Provision is provided in the Regulation and EPA (2014) guidelines for the NSW EPA to approve the immobilisation of contaminants in waste (if required).

The proximity principle from POEO Waste Regulation states that it is an offense for waste to be transported more than 150 km from its place of generation.

11.4 Waste Classification Guidelines (EPA 2014)

All wastes generated shall be assessed, classified and managed in accordance with EPA (2014) guideline. Where wastes require immobilisation prior to off-site disposal (to reduce waste classifications) an immobilisation approval shall be sought in accordance with Part 2 of this guideline, or otherwise General Approvals for the immobilisation of wastes in soils as historically issued by the NSW EPA. Immobilisations are only anticipated to be potentially required with unexpected finds.

11.5 Asbestos Removal Regulations and Code of Practice

The removal and disposal of asbestos will be managed in accordance with the Work Health and Safety Act (2011) and Work Health and Safety Regulation (2017), Code of Practice How to Safely Remove Asbestos (SWNSW 2022a), Code of Practice How to Manage and Control Asbestos in the Workplace (SWNSW 2022b), NSW SafeWork Guidelines, the NSW EPA (2014) Waste Classification Guidelines, and requirements under the Protection of the Environment Operations (Waste) Regulation (2014) for asbestos waste monitoring.

Excavation, hand-picking of bonded asbestos fragments from surfaces and removal of asbestos impacted soils are required to be conducted by a Class A (Friable) or B (Bonded) Asbestos Removal licensed contractor.

12. Conclusions

With reference to the limitations in **Section 13** and subject to the successful implementation of the measures described in this RAP, it is concluded that the risks posed by contamination can be managed in such a way as to be adequately protective of human health and the environment, such that the site can be made suitable for the proposed use as a high school.

13. Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

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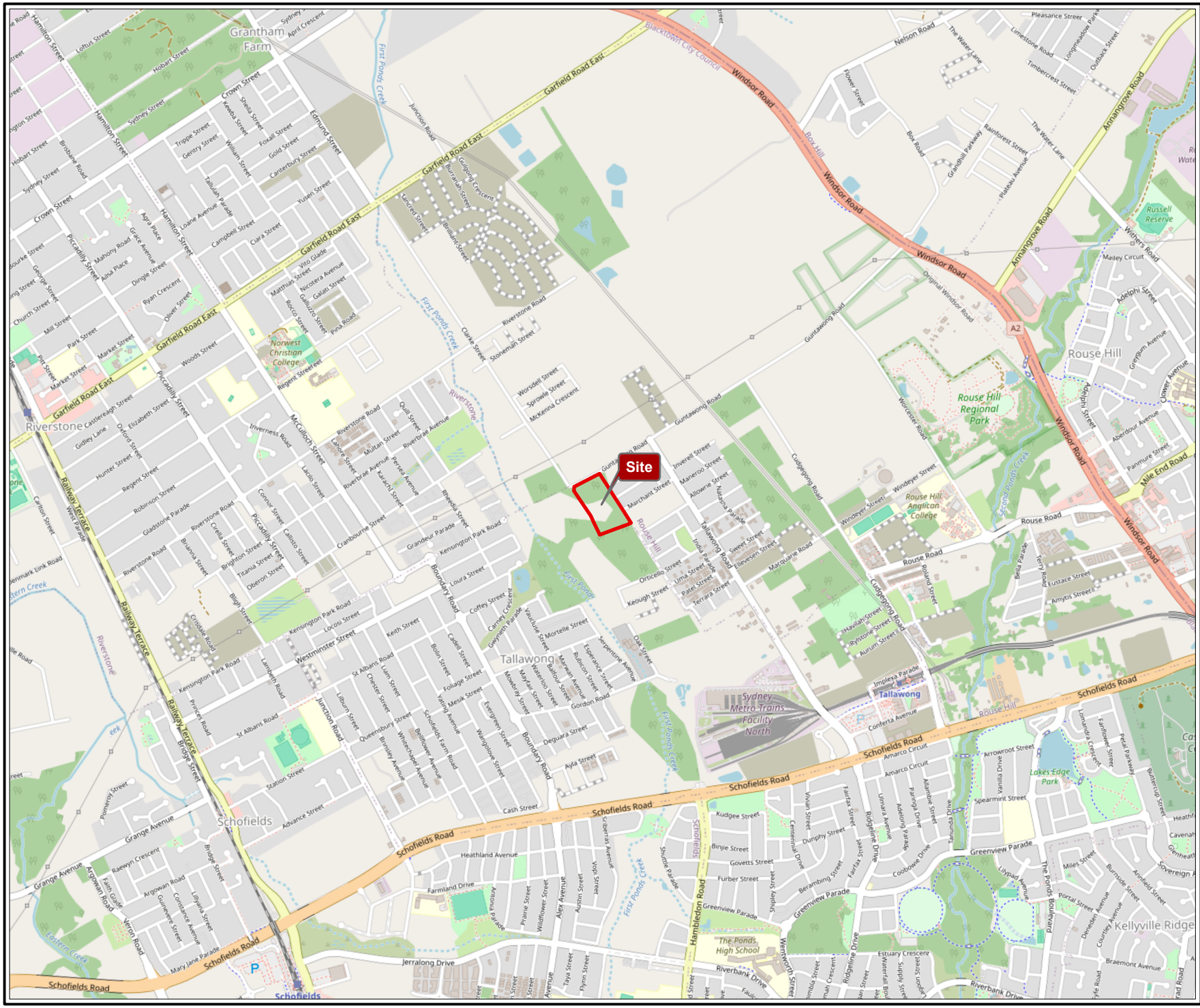
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Appendix A Figures



Legend

Approximate Site Boundary

JBS&G

Job No: 67774

Client: School Infrastructure

Version: R02 Rev A	Date 26/09/2024
Drawn By: TS	Checked By: JDM

Scale 1:25,000

0 250 500

metres

Coord. Sys. GDA 1994 MGA Zone 56

201 Guntawong Road, Tallawong, NSW

SITE LOCATION

FIGURE 1

File Name: 67774_GuntawongRdDSIandRAP_R02

Legend

- Approximate Site Boundary
- NSW Cadastre
- Hydro Line
- EQUINE LIVESTOCK STORAGE
- FORMER MARKET GARDEN
- FORMER RESIDENCE
- Dam
- Stockpile
- BUILDING FOOTPRINT
- New Stockpiles
  - SPA - ACM Sheets
  - SPB - Tyres
  - SPC - Topsoil
  - SPD - Gravel/Pebbles
  - SPE - Soil with Building and Demolition Rubble

JBS&G

Job No: 67774

Client: School Infrastructure

Version: R02 Rev A	Date 27/09/2024
Drawn By: TS	Checked By: JDM

Scale 1:2,000

0 10 20
metres

Coord. Sys. GDA 1994 MGA Zone 56

201 Guntawong Road, Tallawong, NSW

SITE LAYOUT

FIGURE 2

File Name: 67774_GuntawongRdDSIandRAP_R02
Reference: Nearmap - www.nearmap.com (Capture Date: 28/08/2024)

Legend

- Approximate Site Boundary
- NSW Cadastre
- Hydro Line
- Dam
- Former Intensive Agricultural Activities
- Cutting / Filling Materials
- Former or Current Building / Structures

JBS&G

Job No: 67774	
Client: School Infrastructure	
Version: R02 Rev A	Date 26/09/2024
Drawn By: TS	Checked By: JDM

Scale 1:2,000

0 10 20
metres

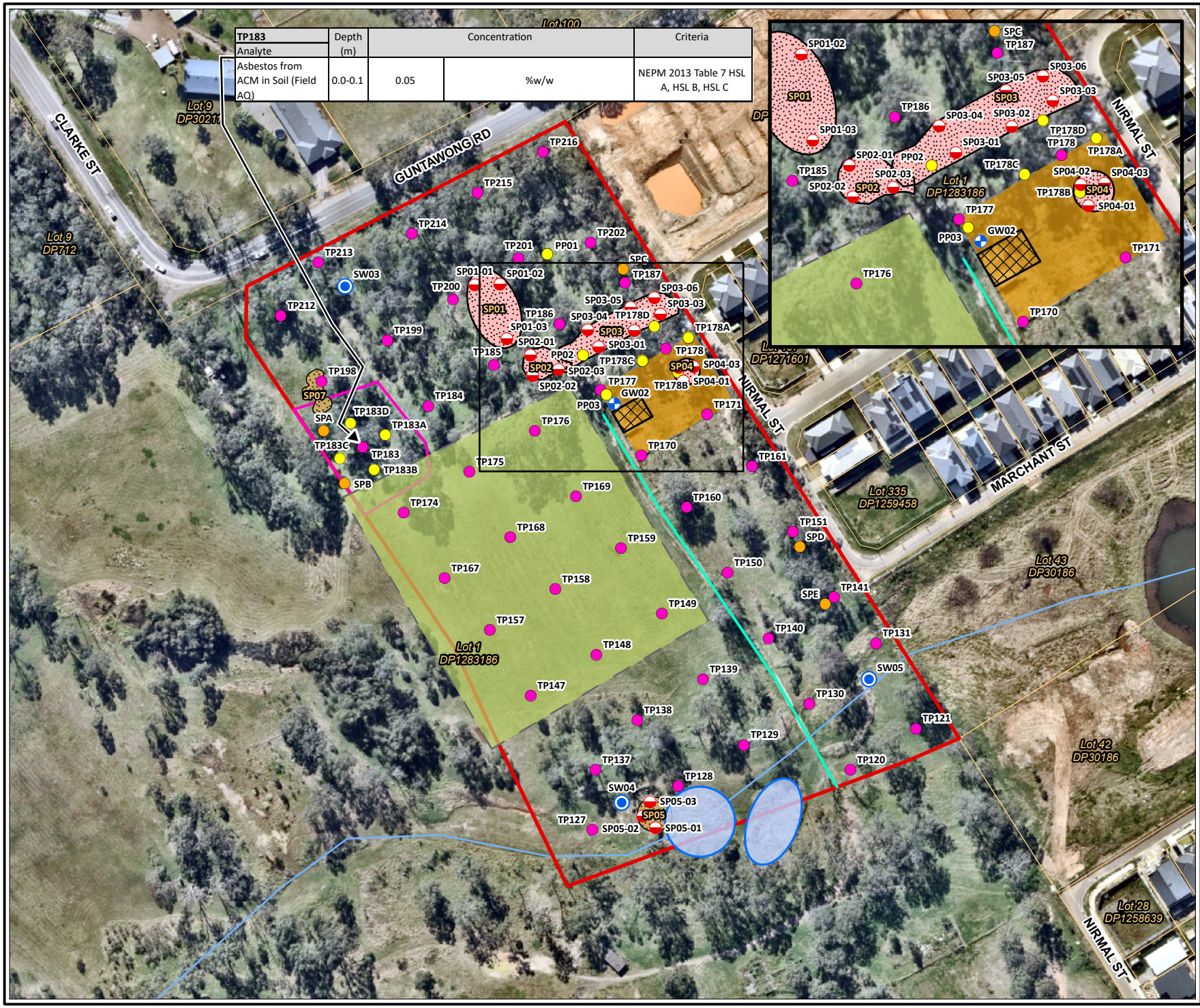
Coord. Sys. GDA 1994 MGA Zone 56

201 Guntawong Road,
Tallawong, NSW

AREA OF ENVIRONMENTAL CONCERN

FIGURE 3

File Name: 67774_GuntawongRdDSIandRAP_R02
Reference: Nearmap - www.nearmap.com (Capture Date: 28/08/2024)



File Name: 67774_GuntawongRdDSIandRAP_R02
Reference: Nearmap - www.nearmap.com (Capture Date: 28/08/2024)

Appendix B Summary Tables

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN						
			Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene (value used in F2 calc)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			2	0.4	5	5	5	0.1	5	5	20	20	50	50	50	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NEPC 2013 EIL, Site Specific			100			150	1100		75	380																			
NEPM 2013 Table 1A(1) HILs Rec C Soil			300	90	300	17000	600	80	1200	30000																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																													
0-1m																					NL	NL	0.5	160	55			40	3
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																		300	2800		180	120	50	85	70			105	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																700	1000	2500	10000										
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																													
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Number**																											
Stockpile Samples																													
SP01-01	15/09/2022	924719	15	<0.4	26	14	38	<0.1	12	79	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP01-02	15/09/2022	924719	16	<0.4	33	15	42	<0.1	7.6	74	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP01-03	15/09/2022	924719	7.2	<0.4	12	41	17	<0.1	20	82	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP02-01	15/09/2022	924719	9.2	<0.4	19	21	35	<0.1	11	48	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP02-02	15/09/2022	924719	17	<0.4	26	21	37	<0.1	15	73	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP02-03	15/09/2022	924719	16	<0.4	28	25	99	<0.1	15	780	<20	<20	50	63	113	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP03-01	15/09/2022	924719	15	<0.4	27	27	51	<0.1	8.7	45	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP03-02	15/09/2022	924719	17	<0.4	27	31	53	<0.1	9.4	160	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP03-03	15/09/2022	924719	19	<0.4	30	39	57	<0.1	20	180	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP03-04	15/09/2022	924719	11	<0.4	20	22	47	<0.1	12	82	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP03-05	15/09/2022	924719	12	<0.4	18	18	38	<0.1	5	96	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP03-06	15/09/2022	924719	12	<0.4	15	21	60	<0.1	<5	22	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP04-01	15/09/2022	924719	5.5	<0.4	18	29	31	<0.1	7.6	68	<20	<100	<250	<250	<250	<20	<250	<500	<500	<500	<20	<250	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP04-02	15/09/2022	924719	3.7	<0.4	14	14	34	<0.1	6.7	82	<20	<20	56	87	143	<20	<50	100	<100	100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP04-03	15/09/2022	924719	4.8	<0.4	17	24	29	<0.1	9.4	67	<20	<20	74	87	161	<20	<50	120	110	230	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP05_01	16/09/2022	924721	7.9	<0.4	14	14	18	<0.1	8.6	37	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP05_02	16/09/2022	924721	17	<0.4	30	17	32	<0.1	8.3	40	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
SP05_03	16/09/2022	924721	14	<0.4	19	21	21	<0.1	7.9	42	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
Insitu Samples																													
TP120_0.0-0.1	12/09/2022	923050	12	<0.4	22	8.4	23	<0.1	5.7	17	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP121_0.0-0.1	12/09/2022	923050	14	<0.4	20	6.2	16	<0.1	<5	10	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP121_0.5-0.6	12/09/2022	923050	13	<0.4	17	15	19	<0.1	7.1	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	12	<0.4	18	17	47	<0.1	7.4	43	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP128_0-0.1	14/09/2022	924697	9.9	<0.4	16	23	27	<0.1	15	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	9.3	<0.4	21	9.7	20	<0.1	9.4	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	12	<0.4	24	16	23	<0.1	9.3	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	12	<0.4	16	11	220	<0.1	6.2	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	15	<0.4	17	23	16	<0.1	6.3	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	13	<0.4	17	10	23	<0.1	5.7	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	9.2	<0.4	18	6.7	18	<0.1	5.6	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	6.1	<0.4	19	8.1	31	<0.1	5.7	23	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP139_0.0-0.1	13/09/2022	923582	9	<0.4	17	10	47	<0.1	6.7	39	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP140_0.0-0.1	12/09/2022	923050	13	<0.4	22	11	97	<0.1	9.2	52	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP141_0.0-0.1	12/09/2022	923050	10	<0.4	16	11	24	<0.1	5.4	32	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP147_0-0.1	14/09/2022	924697	8.4	<0.4	13	5.1	20	<0.1	<5	9.5	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP148_0-0.1	14/09/2022	924697	5.3	<0.4	11	5.4	21	<0.1	<5	15	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP149_0.0-0.1	13/09/2022	923582	17	<0.4	35	12	42	<0.1	11	26	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP150_0.0-0.1	12/09/2022	923050	19	<0.4	31	13	37	<0.1	13	49	<20	<20	<50	56	56	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP151_0.3-0.4	12/09/2022	923050	9.1	<0.4	14	8.9	17	<0.1	<5	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	6.7	<0.4	12	<5	18	<0.1	<5	11	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP158_0-0.1	14/09/2022	924697	15	<0.4	29	8	19	<0.1	6.5	23	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP159_0.0-0.1	13/09/2022	923582	12	<0.4	25	11	40	<0.1	7.2	39	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP160_0.0-0.1	12/09/2022	923050	13	<0.4	24	17	51	<0.1	8.8	96	<20	22	100	160	282	<20	<50	190	<100	190	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP161_0.0-0.1	12/09/2022	923050	13	<0.4	21	10	23	<0.1	6.2	32	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP167_0-0.1	14/09/2022	924697	9.4	<0.4	18	<5	20	<0.1	<5	11	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP168_0-0.1	14/09/2022	924697	14	<0.4	26	9.6	22	<0.1	7.3	29	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP169_0.0-0.1	13/09/2022	923582	15	<0.4	33	20	53	<0.1	10	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP170_0.0-0.1	12/09/2022	923050	16	<0.4	23	20	280	<0.1	13	99	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP171_0.0-0.1	12/09/2022	923050	9	<0.4	15	9.6	21	<0.1	<5	28	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP171_0.4-0.5	12/09/2022	923050	9.4	<0.4	15	22	15	<0.1	5.4	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	5.9	<0.4	15	<5	16	<0.1	<5	11	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP175_0-0.1	14/09/2022	924697	15	<0.4	29	10	21	<0.1	9.9	32	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP176_0.0-0.1	13/09/2022	923582	20	<0.4	41	17	38	<0.1	8.1	35	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP177_0.0-0.1	12/09/2022	923050	20	<0.4	41	35	180	<0.1	21	97	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP178_0.0-0.1	12/09/2022	923050	9.7	<0.4	17	15	380	<0.1	6	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN						
			Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene (value used in F2 calc)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			2	0.4	5	5	5	0.1	5	5	20	20	50	50	50	20	50	100	100	100	20	50	0.1	0.1	0.1	0.1	0.2	0.3	0.5
NEPC 2013 EIL, Site Specific			100			150	1100		75	380																			
NEPM 2013 Table 1A(1) HILs Rec C Soil			300	90	300	17000	600	80	1200	30000																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																													
0-1m																					NL	NL	0.5	160	55			40	3
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																		300	2800		180	120	50	85	70			105	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																700	1000	2500	10000										
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																													
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Number**																											
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	9.7	1.2	20	51	470	<0.1	14	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	5.8	<0.4	18	5.5	19	<0.1	<5	33	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP185_0.0-0.1	13/09/2022	923582	7.3	<0.4	12	20	19	<0.1	<5	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP186_0.0-0.1	12/09/2022	923050	17	<0.4	37	11	23	<0.1	6.3	21	<20	<20	<50	52	52	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP187_0.0-0.1	12/09/2022	923050	12	<0.4	20	7.8	21	<0.1	<5	21	<20	<20	<50	57	57	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP198_0-0.1	14/09/2022	924697	6.5	<0.4	11	7.3	18	<0.1	<5	44	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP199_0-0.1	14/09/2022	924697	13	<0.4	19	6.2	17	<0.1	<5	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	23	<0.4	33	17	40	<0.1	5.3	9.6	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP201_0.0-0.1	12/09/2022	923050	14	<0.4	19	11	16	<0.1	5.5	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	9.4	<0.4	16	9.7	22	<0.1	5.8	23	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP202_0.3-0.4	12/09/2022	923050	8	<0.4	15	8.6	20	<0.1	5.1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	15	<0.4	27	16	30	<0.1	10	32	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP214_0.0-0.1	13/09/2022	923582	6.9	<0.4	15	11	19	<0.1	6.4	16	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	6.5	<0.4	14	11	19	<0.1	6	16	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	6	<0.4	15	11	18	<0.1	6	21	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<1	<2	<1	<1
TP215_0.0-0.1	12/09/2022	923050	9.2	<0.4	15	12	28	<0.1	5.9	26	<20	<20	<50	60	60	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
TP216_0.0-0.1	12/09/2022	923050	13	<0.4	19	25	44	<0.1	16	59	<20	22	82	140	244	<20	<50	170	<100	170	<20	<50	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5
TP216_0.5-0.6	12/09/2022	923050	14	<0.4	14	16	11	<0.1	<5	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																													
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	9.6	<0.4	20	12	26	<0.1	5.7	55	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
QA02 (Duplicate)	24/10/2023	1038740	8.8	<0.4	18	11	26	<0.1	5.7	51	<20	22	59	61	142	<20	<50	100	<100	100	<20	<50	-	-	-	-	-	-	<0.5
QC02 (Triplicate)	24/10/2023	336499	8	<0.4	14	9	22	<0.1	4	36	<25	<50	<100	<100	<50	<25	<50	<100	<100	<50	-	-	-	-	-	-	-	-	-
PP01A-0.2-0.3	26/10/2023	1039089	8.6	<0.4	18	9.1	21	<0.1	5	32	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP01_B 0-0.1	24/10/2023	1038740	11	<0.4	24	11	22	<0.1	7.2	31	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP01B-0.2-0.3	26/10/2023	1039089	12	<0.4	25	8.7	19	<0.1	5.5	19	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP02_A 0-0.1	24/10/2023	1038740	12	<0.4	26	14	18	<0.1	6.6	22	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP02_B 0-0.1	24/10/2023	1038740	16	<0.4	58	9.9	25	<0.1	6.9	41	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP03_A 0-0.1	24/10/2023	1038740	12	<0.4	26	15	64	<0.1	6.6	61	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP03A-0.2-0.3	26/10/2023	1039089	11	<0.4	17	17	18	<0.1	5.5	34	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP03_B 0-0.1	24/10/2023	1038740	5.9	<0.4	19	32	210	<0.1	18	140	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5
PP03B-0.2-0.3	26/10/2023	1039089	14	<0.4	26	13	33	<0.1	8.7	29	<20	<20	<50	<50	<50	<20	<50	<100	<100	<100	<20	<50	-	-	-	-	-	-	<0.5

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos detected.
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos detected.
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			PAH																					
			Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[a]pyrene TEQ (LOR)	Benzo[a]pyrene TEQ calc (Half)	Benzo[a]pyrene TEQ calc (Zero)	Benzo[b+j]fluoranthene	Benzo[b+j+k]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-c,d]pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPC 2013 EIL, Site Specific																				170				
NEPM 2013 Table 1A(1) HILs Rec C Soil								3	3	3														300
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																								
0-1m																				NL				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil							0.7																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																								
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																								
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																						
Stockpile Samples																								
SP01-01	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP01-02	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP01-03	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP02-01	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP02-02	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP02-03	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP03-01	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP03-02	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP03-03	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP03-04	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP03-05	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP03-06	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP04-01	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	0.6	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5	1	2.5
SP04-02	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.6	1.3	
SP04-03	15/09/2022	924719	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	0.8	1.6	
SP05_01	16/09/2022	924721	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP05_02	16/09/2022	924721	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
SP05_03	16/09/2022	924721	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
Insitu Samples																								
TP120_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP121_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP128_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP139_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP140_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP141_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP147_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP148_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP149_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP150_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP151_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP158_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP159_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP160_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP161_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP167_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP168_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP169_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP170_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP171_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP175_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP176_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP177_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP178_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			PAH																					
			Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[a]pyrene TEQ (LOR)	Benzo[a]pyrene TEQ calc (Half)	Benzo[a]pyrene TEQ calc (Zero)	Benzo[b+j]fluoranthene	Benzo[b+j+k]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-c,d]pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPC 2013 EIL, Site Specific																				170				
NEPM 2013 Table 1A(1) HILs Rec C Soil								3	3	3														300
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																								
0-1m																				NL				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil							0.7																	
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																								
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																								
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																						
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP185_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP186_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP187_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP198_0-0.1	14/09/2022	924697	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP199_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP201_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP202_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP214_0.0-0.1	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	0.6	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<1	<1	
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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	
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.5	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
TP215_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP216_0.0-0.1	12/09/2022	923050	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																								
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
QA02 (Duplicate)	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
QC02 (Triplicate)	24/10/2023	336499	<0.1	<0.1	<0.1	<0.1	<0.05	<0.5	<0.5	<0.5	-	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05
PP01A-0.2-0.3	26/10/2023	1039089	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP01_B 0-0.1	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP01B-0.2-0.3	26/10/2023	1039089	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP02_A 0-0.1	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP02_B 0-0.1	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP03_A 0-0.1	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP03A-0.2-0.3	26/10/2023	1039089	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP03_B 0-0.1	24/10/2023	1038740	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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
PP03B-0.2-0.3	26/10/2023	1039089	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	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

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Organochlorine Pesticides																										
			Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
NEPC 2013 EIL, Site Specific															180												
NEPM 2013 Table 1A(1) HILs Rec C Soil			120								10	70					400				20			10		400	30
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																											
0-1m																											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																											
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																											
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																									
Stockpile Samples																											
SP01-01	15/09/2022	924719	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP01-02	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP01-03	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP02-01	15/09/2022	924719	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP02-02	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP02-03	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP03-01	15/09/2022	924719	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP03-02	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP03-03	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP03-04	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP03-05	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP03-06	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP04-01	15/09/2022	924719	<1	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	0.2	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP04-02	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP04-03	15/09/2022	924719	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP05_01	16/09/2022	924721	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP05_02	16/09/2022	924721	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
SP05_03	16/09/2022	924721	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
Insitu Samples																											
TP120_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP139_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP141_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP147_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP148_0-0.1	14/09/2022	924697	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP149_0.0-0.1	13/09/2022	923582	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP150_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP151_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP158_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP159_0.0-0.1	13/09/2022	923582	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP160_0.0-0.1	12/09/2022	923050	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP161_0.0-0.1	12/09/2022	923050	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP167_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP168_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP169_0.0-0.1	13/09/2022	923582	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP170_0.0-0.1	12/09/2022	923050	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP171_0.0-0.1	12/09/2022	923050	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP175_0-0.1	14/09/2022	924697	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP176_0.0-0.1	13/09/2022	923582	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP177_0.0-0.1	12/09/2022	923050	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP178_0.0-0.1	12/09/2022	923050	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Organochlorine Pesticides																									
			Pentachlorophenol	4,4-DDE	a-BHC	b-BHC	d-BHC	g-BHC (Lindane)	Aldrin	Dieldrin	Aldrin + Dieldrin	Chlordane	Chlordane (cis)	Chlordane (trans)	DDT	DDD	DDT+DDE+DDD	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.5
NEPC 2013 EIL, Site Specific															180												
NEPM 2013 Table 1A(1) HILs Rec C Soil			120								10	70					400				20			10		400	30
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																											
0-1m																											
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																											
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																											
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																											
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																									
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP185_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP186_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP187_0.0-0.1	12/09/2022	923050	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP198_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP199_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP201_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	<1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP202_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP214_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP215_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.0-0.1	12/09/2022	923050	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																											
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
QA02 (Duplicate)	24/10/2023	1038740	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
QC02 (Triplicate)	24/10/2023	336499	<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	-
PP01A-0.2-0.3	26/10/2023	1039089	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP01_B 0-0.1	24/10/2023	1038740	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP01B-0.2-0.3	26/10/2023	1039089	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP02_A 0-0.1	24/10/2023	1038740	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP02_B 0-0.1	24/10/2023	1038740	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP03_A 0-0.1	24/10/2023	1038740	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP03A-0.2-0.3	26/10/2023	1039089	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5
PP03_B 0-0.1	24/10/2023	1038740	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10
PP03B-0.2-0.3	26/10/2023	1039089	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.5

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Organophosphorus Pesticides																																							
			Azinophos methyl	Bolstar (Sulprofos)	Bromophos-ethyl	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Tokuthion	Trichloronate	Parathion
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.2	0.2	0.1	0.2	0.2	0.2	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	2	0.2	2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
NEPC 2013 EIL, Site Specific																																										
NEPM 2013 Table 1A(1) HILs Rec C Soil							250																																			
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																										
0-1m																																										
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																										
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																										
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																										
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																								
Stockpile Samples																																										
SP01-01	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP01-02	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP01-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP02-01	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP02-02	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP02-03	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP03-01	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP03-02	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP03-03	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP03-04	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP03-05	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP03-06	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP04-01	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP04-02	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP04-03	15/09/2022	924719	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP05_01	16/09/2022	924721	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP05_02	16/09/2022	924721	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
SP05_03	16/09/2022	924721	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Insitu Samples																																										
TP120_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP139_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP141_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP147_0-0.1	14/09/2022	924697	0.3	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP148_0-0.1	14/09/2022	924697	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP149_0.0-0.1	13/09/2022	923582	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP150_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP151_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	0.3	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP158_0-0.1	14/09/2022	924697	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP159_0.0-0.1	13/09/2022	923582	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP160_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP161_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP167_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP168_0-0.1	14/09/2022	924697	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP169_0.0-0.1	13/09/2022	923582	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP170_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP171_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP175_0-0.1	14/09/2022	924697	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP176_0.0-0.1	13/09/2022	923582	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP177_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP178_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Organophosphorus Pesticides																																					
			Azinophos methyl	Bolstar (Sulprofos)	Bromophos-ethyl	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Tokuthion	Trichloronate	Parathion
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.2	0.2	0.1	0.2	0.2	0.2	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	2	0.2	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
NEPC 2013 EIL, Site Specific																																								
NEPM 2013 Table 1A(1) HILs Rec C Soil							250																																	
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																								
0-1m																																								
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																								
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																								
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																								
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																						
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP186_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP187_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP198_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP199_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP201_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
TP202_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP214_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	<0.2	<0.2	-	<0.2	<0.2	<0.2	<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	<2	<0.2	<2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP215_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																																								
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02 (Duplicate)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02 (Triplicate)	24/10/2023	336499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Chlorinated Alkanes																Chlorinated Alkenes										Solvents	Polychlorinated Biphenyls							
			1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Acetone	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPC 2013 EIL, Site Specific																																				
NEPM 2013 Table 1A(1) HILs Rec C Soil																																				1
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																				
0-1m																																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																				
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																				
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																		
Stockpile Samples																																				
SP01-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP01-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP01-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP02-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP02-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP02-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP03-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP03-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP03-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP03-04	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP03-05	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP03-06	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP04-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP04-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP04-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP05_01	16/09/2022	924721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP05_02	16/09/2022	924721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
SP05_03	16/09/2022	924721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Insitu Samples																																				
TP120_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP139_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP141_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP147_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP148_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP149_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP150_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP151_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP158_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP159_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP160_0.0-0.1	12/09/2022	923050	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP161_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP167_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP168_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP169_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP170_0.0-0.1	12/09/2022	923050	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP171_0.0-0.1	12/09/2022	923050	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP175_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP176_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP177_0.0-0.1	12/09/2022	923050	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP178_0.0-0.1	12/09/2022	923050	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Chlorinated Alkanes																Chlorinated Alkenes										Solvents	Polychlorinated Biphenyls							
			1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Acetone	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			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	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
NEPC 2013 EIL, Site Specific																																				
NEPM 2013 Table 1A(1) HILs Rec C Soil																																				1
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																				
0-1m																																				
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																				
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																				
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																				
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																		
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP185_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP186_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP187_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP198_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP199_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP201_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	<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	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TP202_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP214_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP215_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																																				
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02 (Duplicate)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02 (Triplicate)	24/10/2023	336499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Phenols																						MAH						Miscellaneous Hydrocarbons						Chlorinated Benzenes				
			2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-D	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Cresol Total	Phenol	Tetrachlorophenols	Phenolics Total	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			1	1	0.5	0.5	5	0.5	0.5	0.5	0.2	1	0.4	0.5	20	1	5	0.5	0.5	10	5	1	20	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	0.05
NEPC 2013 EIL, Site Specific																																									
NEPM 2013 Table 1A(1) HILs Rec C Soil																		4000	40000																							10
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																									
0-1m																																									
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																									
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																									
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																									
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																								
Stockpile Samples																																									
SP01-01	15/09/2022	924719	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP01-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP01-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP02-01	15/09/2022	924719	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP02-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP02-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP03-01	15/09/2022	924719	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP03-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP03-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP03-04	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP03-05	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP03-06	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP04-01	15/09/2022	924719	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	0.4	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP04-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP04-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP05_01	16/09/2022	924721	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP05_02	16/09/2022	924721	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
SP05_03	16/09/2022	924721	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
Insitu Samples																																									
TP120_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP139_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP141_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP147_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP148_0-0.1	14/09/2022	924697	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP149_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP150_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP151_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP158_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP159_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP160_0.0-0.1	12/09/2022	923050	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	<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	<0.05
TP161_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP167_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP168_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP169_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP170_0.0-0.1	12/09/2022	923050	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	<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	<0.05
TP171_0.0-0.1	12/09/2022	923050	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	<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	<0.05
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP175_0-0.1	14/09/2022	924697	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP176_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP177_0.0-0.1	12/09/2022	923050	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	<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	<0.05
TP178_0.0-0.1	12/09/2022	923050	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	<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	<0.05

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Phenols																						MAH						Miscellaneous Hydrocarbons						Chlorinated Benzenes				
			2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2,4-dinitrophenol	2,6-D	2,6-dichlorophenol	2-chlorophenol	2-Methylphenol	2-nitrophenol	3&4-Methylphenol (m&p-cresol)	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Chloro-3-Methylphenol	4-nitrophenol	Cresol Total	Phenol	Tetrachlorophenols	Phenolics Total	Phenols (Total Halogenated)	Phenols (Total Non Halogenated)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			1	1	0.5	0.5	5	0.5	0.5	0.5	0.2	1	0.4	0.5	20	1	5	0.5	0.5	10	5	1	20	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	0.05
NEPC 2013 EIL, Site Specific																																									
NEPM 2013 Table 1A(1) HILs Rec C Soil																		4000	40000																							10
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																									
0-1m																																									
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																									
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																									
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																									
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																								
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP185_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP186_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP187_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP198_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP199_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP201_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	<1	<1	<0.5	<0.5	<5	-	<0.5	<0.5	<0.2	<1	<0.4	<0.5	<20	<1	<5	<0.5	<0.5	<10	-	<1	<20	<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	<0.05
TP202_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP214_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP215_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																																									
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
QA02 (Duplicate)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
QC02 (Triplicate)	24/10/2023	336499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
PP01A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP01_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP01B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP02_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP02_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP03_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP03A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05
PP03_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
PP03B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Trihalomethanes				Herbicides & Fungicides																Herbicides								Major Anions		Ionic Balance				
			Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Picloram	2,4,5-TP (Silvex)	2,4,5-Trichlorophenoxy Acetic Acid	2,4-dichlorophenoxybutanoic acid	2,4-Dichlorprop	2-Methyl-4-Chlorophenoxy Butanoic Acid	2-Methyl-4-chlorophenoxyacetic acid	4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	Bentazone	Bromoxynil	Clopyralid	Dicamba	Dinoseb	Hedonal	Mecoprop	Triclopyr	2,4,6-Trichlorophenoxy-acetic acid	2-Chlorophenoxyacetic acid	4-Chlorophenoxy acetic acid	Acifluorfen	Chloramben	Fluroxypyr	Carbon disulfide	Cyanide Total	Chloride	Sulphate	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	Exchangeable Sodium Percent	% Clay*
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MEQ/100G	US/CM	pH Units	%	%
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2	1	1	0.5	1	10	10	0.05	10	0.1	0.1	1
NEPC 2013 EIL, Site Specific																																					
NEPM 2013 Table 1A(1) HILs Rec C Soil							5700		800			800	800							1300	800																
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																					
0-1m																																					
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																					
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																					
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																					
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																			
Stockpile Samples																																					
SP01-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
SP01-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP01-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170	140	-	-	-	-	-
SP02-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
SP02-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP02-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP03-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
SP03-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP03-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP03-04	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP03-05	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP03-06	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP04-01	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
SP04-02	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP04-03	15/09/2022	924719	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP05_01	16/09/2022	924721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
SP05_02	16/09/2022	924721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
SP05_03	16/09/2022	924721	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-
Insitu Samples																																					
TP120_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP127_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP128_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP137_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP138_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP139_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	900	53	4.2	520	4.7	25	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	960	83	3.7	490	4.8	42	-
TP141_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP147_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP148_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
TP149_0.0-0.1	13/09/2022	923582	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP150_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP151_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP157_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP158_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP159_0.0-0.1	13/09/2022	923582	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP160_0.0-0.1	12/09/2022	923050	<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	<1	-	-	-	-	-	-	-
TP161_0.0-0.1	12/09/2022	923050	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP167_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP168_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP169_0.0-0.1	13/09/2022	923582	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP170_0.0-0.1	12/09/2022	923050	<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	<1	-	-	-	-	-	-	-
TP171_0.0-0.1	12/09/2022	923050	<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	<1	-	-	-	-	-	-	-
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP174_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP175_0-0.1	14/09/2022	924697	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-
TP176_0.0-0.1	13/09/2022	923582	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP177_0.0-0.1	12/09/2022	923050	<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	<1	-	-	-	-	-	-	-
TP178_0.0-0.1	12/09/2022	923050	<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	<1	-	-	-	-	-	-	-

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

					Trihalomethanes				Herbicides & Fungicides																				Herbicides								Major Anions		Ionic Balance				
					Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Picloram	2,4,5-TP (Silvex)	2,4,5-Trichlorophenoxy Acetic Acid	2,4-dichlorophenoxybutanoic acid	2,4-Dichloprop	2-Methyl-4-Chlorophenoxy Butanoic Acid	2-Methyl-4-chlorophenoxyacetic acid	4-(2,4-Dichlorophenoxy)butyric Acid (2,4-DB)	Bentazone	Bromoxynil	Clopyralid	Dicamba	Dinoseb	Hedonal	Mecoprop	Triclopyr	2,4,6-Trichlorophenoxy-acetic acid	2-Chlorophenoxyacetic acid	4-Chlorophenoxy acetic acid	Acifluorfen	Chloramben	Fluroxypyr	Carbon disulfide	Cyanide Total	Chloride	Sulphate	CEC	Conductivity (1:5 aqueous extract)	pH (aqueous extract)	Exchangeable Sodium Percent	% Clay*
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MEQ/100G	US/CM	pH Units	%	%
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2	1	1	0.5	1	10	10	0.05	10	0.1	0.1	1
NEPC 2013 EIL, Site Specific																																									
NEPM 2013 Table 1A(1) HILs Rec C Soil									5700		800			800	800							1300	800																		
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																																									
0-1m																																									
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																																									
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																																									
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil																																									
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																																								
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP184_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP185_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	61	15	33	4.8	3.2	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	55	8.8	27	3.9	2.8	-	-
TP186_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP187_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP198_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP199_0-0.1	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	14	7.4	120	3.5	29	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	220	8.4	130	4.1	32	-	-
TP201_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	<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	<1	-	-	-	-	-	-	-	-	-	-	-
TP202_0.3-0.4	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP214_0.0-0.1	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	-	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP215_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	87	14	24	6.7	1.1	6.8	
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	130	6.8	56	5.5	17	-	-
FRAG_TP183	14/09/2022	924697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Powerpole Samples																																									
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02 (Duplicate)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02 (Triplicate)	24/10/2023	336499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP01B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP02_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PP03B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Asbestos - Eurofins																	Asbestos - Envirolab				Other				
			Approximate Sample Mass	Asbestos Sample Dimensions	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	Asbestos Reported Result	Asbestos ID in Soil	Total Asbestos	Asbestos (ACM >7mm) Estimation	Asbestos in soil (<2mm AF/FA) (%w/w)	Moisture Content (dried @ 103°C)	Salinity	3,5-Dichlorobenzoic acid	Actril (loxynil)	DCPA (Chlorthal) Diacid
			g	Comment	g	g	% (w/w)	g	g	g	g	% (w/w)	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	g/kg	g/kg	% (w/w)	% (w/w)	%	mg/kg	mg/kg	mg/kg	mg/kg
EQL																						0.1	0.01	0.001	1	20	0.5	0.5	0.5
NEPC 2013 EIL, Site Specific																													
NEPM 2013 Table 1A(1) HILs Rec C Soil																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																													
0-1m																													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																													
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil							0.02					0.001											0.02	0.001					
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nur**																											
Stockpile Samples																													
SP01-01	15/09/2022	924719	587	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	-	-
SP01-02	15/09/2022	924719	586	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	17	-	-	-	-
SP01-03	15/09/2022	924719	582	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	18	-	-	-	-
SP02-01	15/09/2022	924719	754	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	18	-	-	-	-
SP02-02	15/09/2022	924719	679	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	18	-	-	-	-
SP02-03	15/09/2022	924719	780	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	12	-	-	-	-
SP03-01	15/09/2022	924719	666	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	-	-
SP03-02	15/09/2022	924719	654	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	-	-
SP03-03	15/09/2022	924719	672	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	21	-	-	-	-
SP03-04	15/09/2022	924719	620	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	12	-	-	-	-
SP03-05	15/09/2022	924719	586	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	-	-
SP03-06	15/09/2022	924719	511	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	25	-	-	-	-
SP04-01	15/09/2022	924719	701	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	14	-	-	-	-
SP04-02	15/09/2022	924719	721	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	11	-	-	-	-
SP04-03	15/09/2022	924719	600	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	11	-	-	-	-
SP05_01	16/09/2022	924721	510	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	17	-	-	-	-
SP05_02	16/09/2022	924721	501	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	20	-	-	-	-
SP05_03	16/09/2022	924721	613	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	-	1#11	1#1	-	-	-	-	17	-	-	-	-
Insitu Samples																													
TP120_0.0-0.1	12/09/2022	923050	611	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	17	-	-	-	-
TP121_0.0-0.1	12/09/2022	923050	653	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	14	-	-	-	-
TP121_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-
TP127_0-0.1	14/09/2022	924697	809	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	15	-	-	-	-
TP128_0-0.1	14/09/2022	924697	927	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	-	1#11	1#1	-	-	-	-	15	-	-	-	-
TP129_0.0-0.1	13/09/2022	923582	636	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	21	-	-	-	-
TP13_0.0-0.1	13/09/2022	923582	571	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	16	-	-	-	-
TP130_0.0-0.1	12/09/2022	923050	502	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	22	-	-	-	-
TP130_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-	-
TP131_0.3-0.4	12/09/2022	923050	683	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	17	-	-	-	-
TP137_0-0.1	14/09/2022	924697	749	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	-	1#11	1#1	-	-	-	-	19	-	-	-	-
TP138_0-0.1	14/09/2022	924697	559	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	26	-	-	-	-
TP139_0.0-0.1	13/09/2022	923582	434	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	30	-	-	-	-
TP140_0.0-0.1	12/09/2022	923050	673	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	-	-
TP140_2.5-2.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	250	-	-	-
TP140_2.9-3.0	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	240	-	-	-
TP141_0.0-0.1	12/09/2022	923050	557	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	22	-	-	-	-
TP147_0-0.1	14/09/2022	924697	705	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	21	-	-	<0.5	-
TP148_0-0.1	14/09/2022	924697	924	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	22	-	-	<0.5	-
TP149_0.0-0.1	13/09/2022	923582	673	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	18	-	-	<0.5	-
TP150_0.0-0.1	12/09/2022	923050	684	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	15	-	-	-	-
TP151_0.3-0.4	12/09/2022	923050	764	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	8.9	-	-	-	-
TP157_0-0.1	14/09/2022	924697	721	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	21	-	-	<0.5	-
TP158_0-0.1	14/09/2022	924697	855	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	20	-	-	<0.5	-
TP159_0.0-0.1	13/09/2022	923582	639	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	24	-	-	<0.5	-
TP160_0.0-0.1	12/09/2022	923050	721	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	<0.5	-
TP161_0.0-0.1	12/09/2022	923050	578	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	17	-	-	<0.5	-
TP167_0-0.1	14/09/2022	924697	886	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	20	-	-	-	-
TP168_0-0.1	14/09/2022	924697	772	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	16	-	-	<0.5	-
TP169_0.0-0.1	13/09/2022	923582	754	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	20	-	-	<0.5	-
TP170_0.0-0.1	12/09/2022	923050	52	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#2	-	-	-	-	19	-	-	<0.5	-
TP171_0.0-0.1	12/09/2022	923050	515	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	19	-	-	<0.5	-
TP171_0.4-0.5	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-
TP174_0-0.1	14/09/2022	924697	746	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	18	-	-	<0.5	-
TP175_0-0.1	14/09/2022	924697	930	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	18	-	-	<0.5	-
TP176_0.0-0.1	13/09/2022	923582	735	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	10	-	-	<0.5	-
TP177_0.0-0.1	12/09/2022	923050	636	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	13	-	-	<0.5	-
TP178_0.0-0.1	12/09/2022	923050	360	-	0	0	0	0	0	0	0	0	0	1#11	1#11	1#11	1#7	1#6	1#11	1#1	-	-	-	-	29	-	-	<0.5	-

Table A Soil Analytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

			Asbestos - Eurofins																	Asbestos - Envirolab				Other				
			Approximate Sample Mass	Asbestos Sample Dimensions	Mass ACM	Mass Asbestos in ACM	Asbestos from ACM in Soil	Mass FA	Mass Asbestos in FA	Mass AF	Mass asbestos in AF	Asbestos from FA & AF in Soil	Mass Asbestos in FA & AF	ACM - Comment	FA- Comment	AF - Comment	Organic Fibres - Comment	Respirable Fibres - Comment	Synthetic Fibres - Comment	Asbestos Reported Result	Asbestos ID in Soil	Total Asbestos	Asbestos (ACM >7mm) Estimation	Asbestos in soil (<2mm AF/FA) (%w/w)	Moisture Content (dried @ 103°C)	Salinity	3,5-Dichlorobenzoic acid	Actril (loxynil)	DCPA (Chlorthal) Diacid
			g	Comment	g	g	% (w/w)	g	g	g	g	% (w/w)	g	Comment	Comment	Comment	Comment	Comment	Comment	Comment	g/kg	g/kg	% (w/w)	% (w/w)	%	mg/kg	mg/kg	mg/kg	mg/kg
EQL																						0.1	0.01	0.001	1	20	0.5	0.5	0.5
NEPC 2013 EIL, Site Specific																													
NEPM 2013 Table 1A(1) HILs Rec C Soil																													
NEPM 2013 Table 1A(3) Rec C Soil HSL for Vapour Intrusion, Sand																													
0-1m																													
NEPM 2013 Table 1B(6) ESLs for Urban Res, Coarse Soil																													
NEPM 2013 Table 1B(7) Management Limits in Res / Parkland, Coarse Soil																													
NEPM 2013 Table 7 Rec C Soil HSL for Asbestos in Soil							0.02					0.001											0.02	0.001					
Field_ID	**Sampled_Date_Tir**	**Lab_Report_Nu**																											
TP178_0.3-0.4	12/09/2022	931453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-
TP178A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	-	-
TP178B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	-	-
TP178C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-
TP178D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	-	-	-	-
TP183_0-0.1	14/09/2022	924697	582	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	25	-	-	-	-
TP183A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.7	-	-	-	-
TP183B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.5	-	-	-	-
TP183C 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	-	-
TP183D 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	-	-	-	-
TP184_0-0.1	14/09/2022	924697	680	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	17	-	-	-	-
TP185_0.0-0.1	13/09/2022	923582	590	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	18	18	-	-	-
TP185_0.9-1.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	15	-	-	-
TP186_0.0-0.1	12/09/2022	923050	648	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	12	-	-	-	-
TP187_0.0-0.1	12/09/2022	923050	648	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	15	-	-	-	-
TP198_0-0.1	14/09/2022	924697	659	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	13	-	-	-	-
TP199_0-0.1	14/09/2022	924697	1001	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	17	-	-	-	-
TP200_0.0-0.1	13/09/2022	923582	839	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	16	-	-	-	-
TP200_1.4-1.5	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	66	-	-	-
TP200_2.9-3.0	13/09/2022	923582	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	72	-	-	-
TP201_0.0-0.1	12/09/2022	923050	659	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	19	-	-	-	-
TP202_0.0-0.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	<0.5	-
TP202_0.3-0.4	12/09/2022	923050	502	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	22	-	-	-	-
TP212_0.0-0.1	13/09/2022	923582	606	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	19	-	-	-	-
TP214_0.0-0.1	13/09/2022	923582	652	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	13	-	-	-	-
20220913_QC01LW (intra-lab duplicate of TP214_0.0-0.1)	13/09/2022	923582	762	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	14	-	-	<0.5	-
20220913-QA01LW (inter-lab duplicate of TP214_0.0-0.1)	13/09/2022	305976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	<0.1	<0.01	<0.001 - 0[#12]	13	-	-	-	-
TP215_0.0-0.1	12/09/2022	923050	615	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	20	-	-	-	-
TP216_0.0-0.1	12/09/2022	923050	494	-	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#7]	1[#6]	1[#11]	1[#1]	-	-	-	-	13	<20	-	-	-
TP216_0.5-0.6	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-
TP216_1.0-1.1	12/09/2022	923050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	32	-	-	-
FRAG_TP183	14/09/2022	924697	58	1[#10]	0	0	0	0	0	0	0	0	0	1[#11]	1[#11]	1[#11]	1[#11]	1[#11]	1[#11]	1[#4]	-	-	-	-	-	-	-	-	-
Powerpole Samples																													
PP01_A 0-0.1 (Primary)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	-	-
QA02 (Duplicate)	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	-	-
QC02 (Triplicate)	24/10/2023	336499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5	-	-	-	-
PP01A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	-
PP01_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	-	-
PP01B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	-	-
PP02_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-
PP02_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	-	-	-	-
PP03_A 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.5	-	-	-	-
PP03A-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	-	-	-
PP03_B 0-0.1	24/10/2023	1038740	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	-	-
PP03B-0.2-0.3	26/10/2023	1039089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	-	-	-	-

Data Comments

#1 No asbestos detected at the reporting limit of 0.001% w/w.*Organic fibre detected.No trace asbestos d
#2 No asbestos detected at the reporting limit of 0.01% w/w.Organic fibre detected.No trace asbestos dete
#3 ACM:Chrysotile; amosite and crocidolite asbestos detected in fibre cement fragments.
#4 Chrysotile and amosite asbestos detected.
#5 Chrysotile asbestos detected.
#6 No trace asbestos detected.
#7 Organic fibres detected.
#8 120x25x10
#9 170x95x3
#10 70x55x10
#11 Nil
#12 –

Table B Groundwater Analytical Results

Project Number: 67774

Project Name: Proposed Tallawong High School DSI

	Metals & Metalloids								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN					
	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0002	0.001	0.001	0.001	0.0001	0.001	0.005	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.001	0.001	0.001	0.002	0.003
ADWG (2011) Aesthetic - Updated March-2021				1				3														0.025	0.003	0.02	0.02	0.02
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinking Water 2008)													0.09					0.09		0.09						
ADWG (2011) Health - Updated March-2021	0.01	0.002	0.05	2	0.01	0.001	0.02														0.001	0.8	0.3	0.6	0.6	0.6
ADWG (2011) Health x 10 (Recreational) - Updated March-2021	0.1	0.02	0.5	20	0.1	0.01	0.2														0.01	8	3	6	6	6
ANZG (2018) Freshwater 95% toxicant DGVs	0.013	0.0002	0.001	0.0014	0.0034	0.0006	0.011	0.008													0.95	0.18	0.08	0.35	0.075	
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																										
4-8m																			NL	NL	NL5	NL	NL			NL
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																										
4-8m																			1	1	0.9	NL	NL			NL

Field_ID	Location_Code	Well	Sampled_Date_Time																								
GW02	GW02	GW02	19/10/2022	<0.001	<0.0002	<0.001	0.002	<0.001	<0.0001	0.002	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003

Table B Groundwater Analytical Results

Project Number: 67774

Project Name: Proposed Tallawong High School DSI

				PAH														
				Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL				0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
ADWG (2011) Aesthetic - Updated March-2021																				
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinki																				
ADWG (2011) Health - Updated March-2021								0.00001												
ADWG (2011) Health x 10 (Recreational) - Updated March-2021								0.0001												
ANZG (2018) Freshwater 95% toxicant DGVs						0.0004		0.0002						0.0014			0.016	0.002		
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																				
4-8m																	NL			
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																				
4-8m																	NL			
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**																	
GW02	GW02	GW02	19/10/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Table B Groundwater Analytical Results

Project Number: 67774

Project Name: Proposed Tallawong High School DSI

	Chlorinated Alkanes																Chlorinated Alkenes									
	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,1-dichloroethene	3-chloropropene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005
ADWG (2011) Aesthetic - Updated March-2021																										
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinki																										
ADWG (2011) Health - Updated March-2021							0.003				0.003				0.004		0.03					0.05				0.0003
ADWG (2011) Health x 10 (Recreational) - Updated March-2021							0.03				0.03				0.04		0.3					0.5				0.003
ANZG (2018) Freshwater 95% toxicant DGVs		0.27	0.4	6.5			1.9	0.9	1.1		0.24				4		0.7					0.07			0.33	0.1
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																										
4-8m																										
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																										
4-8m																										
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**																								
GW02	GW02	GW02	19/10/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005

Table B Groundwater Analytical Results

Project Number: 67774

Project Name: Proposed Tallawong High School DSI

	Solvents	MAH						Miscellaneous Hydrocarbons						Chlorinated Benzenes				Trihalomethanes				
	Acetone	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	Styrene	Total MAH	Bromobenzene	Isopropylbenzene	1,2-dibromoethane	Bromomethane	Dibromomethane	Iodomethane	4-Methyl-2-pentanone	Methyl Ethyl Ketone	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Carbon disulfide
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.005	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.005	0.001	0.001	0.005	0.005	0.001	0.001	0.001	0.001	0.001	0.005	0.001	0.001	0.001
ADWG (2011) Aesthetic - Updated March-2021				0.004										0.001	0.02	0.0003	0.01					
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinki																						
ADWG (2011) Health - Updated March-2021	14	0.056*	0.59*	0.03			0.45*	0.001	0.001					1.5		0.04	0.3					0.81*
ADWG (2011) Health x 10 (Recreational) - Updated March-2021	140			0.3				0.01	0.01					15		0.4	3					
ANZG (2018) Freshwater 95% toxicant DGVs							0.03							0.16	0.26	0.06	0.055		0.77			
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay																						
4-8m																						
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand																						
4-8m																						

Field_ID	Location_Code	Well	Sampled_Date_Time																				
GW02	GW02	GW02	19/10/2022	<0.005	<0.001	<0.001	<0.001	<0.003	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001

Table B Groundwater Analytical Results

Project Number: 67774

Project Name: Proposed Tallawong High School DSI

	Major Cations				Major Anions					Ionic Balance			Other
	Calcium	Potassium	Magnesium	Sodium	Alkalinity (Carbonate as CaCO3)	Alkalinity (Hydroxide) as CaCO3	Alkalinity (Bicarbonate as CaCO3)	Chloride	Sulphate	Alkalinity (total) as CaCO3	Electrical Conductivity (Lab)	pH (Lab)	Turbidity
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µS/cm	pH Units	-
EQL	0.5	0.5	0.5	0.5	10	20	20	1	2	20	10	0.1	1
ADWG (2011) Aesthetic - Updated March-2021				180				250	250			6.5-8.5	5
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinki													
ADWG (2011) Health - Updated March-2021									500			6.5-	
ADWG (2011) Health x 10 (Recreational) - Updated March-2021									5000				
ANZG (2018) Freshwater 95% toxicant DGVs													
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Clay													
4-8m													
NEPM 2013 Table 1A(4) Res HSL A/B GW for Vapour Intrusion, Sand													
4-8m													

Field_ID	Location_Code	Well	Sampled_Date_Time											
GW02	GW02	GW02	19/10/2022	120	26	150	670	<10	<20	1900	790	170	1900	4200	7.8	7600

Table C Surface Water Anaytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

	Heavy Metals								TPHs (NEPC 1999)					TRHs (NEPC 2013)							BTEXN					
	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Lead (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	C6-C9 Fraction	C10-C14 Fraction	C15-C28 Fraction	C29-C36 Fraction	C10-C36 Fraction (Sum of Total)	C6-C10	C10-C16	C16-C34	C34-C40	C10-C40 (Sum of total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.001	0.0002	0.001	0.001	0.001	0.0001	0.001	0.005	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.1	0.1	0.1	0.02	0.05	0.001	0.001	0.001	0.001	0.002	0.003
ADWG (2011) Aesthetic - Updated March-2021				1				3														0.025	0.003	0.02	0.02	0.02
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinking Water 2008)													0.09					0.09		0.09						
ADWG (2011) Health - Updated March-2021	0.01	0.002	0.05	2	0.01	0.001	0.02														0.001	0.8	0.3	0.6	0.6	0.6
ADWG (2011) Health x 10 (Recreational) - Updated March-2021	0.1	0.02	0.5	20	0.1	0.01	0.2														0.01	8	3	6	6	6
ANZECC 2000 Irrigation Short Term Trigger Values	2	0.05	1	5	5	0.002	2	5																		
ANZG (2018) Freshwater 95% toxicant DGVs	0.013	0.0002	0.001	0.0014	0.0034	0.0006	0.011	0.008													0.95	0.18	0.08	0.35	0.075	

Field_ID	Location_Code	Well	Sampled_Date_Time																								
SW03	SW03	SW03	20/09/2022	<0.001	<0.0002	<0.001	0.005	<0.001	<0.0001	0.007	<0.005	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
SW04	SW04	SW04	20/09/2022	<0.001	<0.0002	<0.001	0.003	<0.001	<0.0001	0.003	0.025	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003
SW05	SW05	SW05	20/09/2022	0.001	0.0003	0.005	0.018	<0.001	<0.0001	0.007	2.4	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.1	<0.1	<0.1	<0.02	<0.05	<0.001	<0.001	<0.001	<0.001	<0.002	<0.003

Table C Surface Water Anaytical Results

Project Number: 67774

Project Name: Proposed Tallawong High School DSI

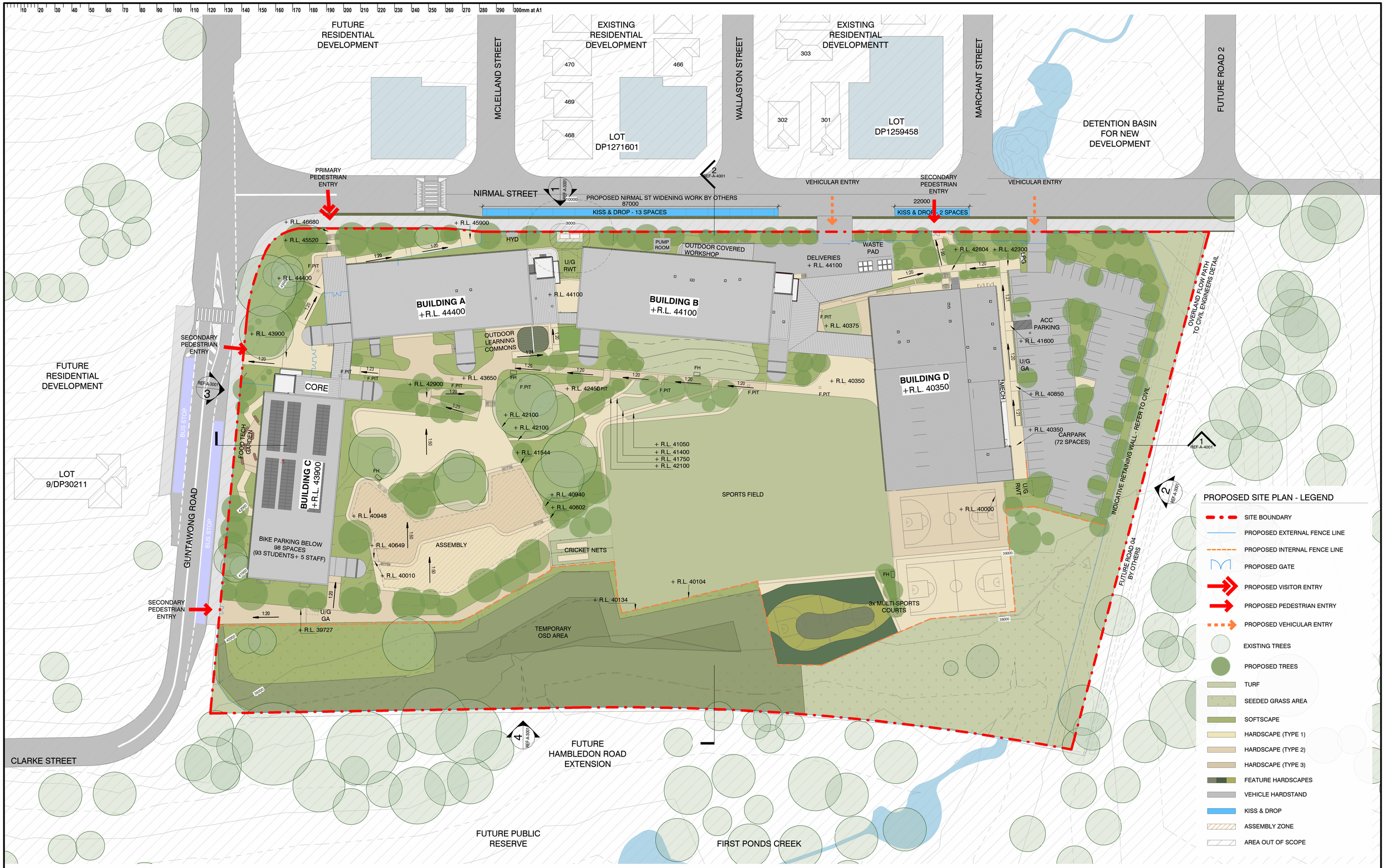
										PAH									
										Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene
										mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL										0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
ADWG (2011) Aesthetic - Updated March-2021																			
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinking Water 20																			
ADWG (2011) Health - Updated March-2021														0.00001					
ADWG (2011) Health x 10 (Recreational) - Updated March-2021														0.0001					
ANZECC 2000 Irrigation Short Term Trigger Values																			
ANZG (2018) Freshwater 95% toxicant DGVs												0.0004		0.0002					
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**																
SW03	SW03	SW03	20/09/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW04	SW04	SW04	20/09/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SW05	SW05	SW05	20/09/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

										PAH									
										Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)			
										mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
EQL										0.001	0.001	0.001	0.001	0.001	0.001	0.001			
ADWG (2011) Aesthetic - Updated March-2021																			
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinking Water 20																			
ADWG (2011) Health - Updated March-2021																			
ADWG (2011) Health x 10 (Recreational) - Updated March-2021																			
ANZECC 2000 Irrigation Short Term Trigger Values																			
ANZG (2018) Freshwater 95% toxicant DGVs										0.0014			0.016	0.002					
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**																
SW03	SW03	SW03	20/09/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
SW04	SW04	SW04	20/09/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
SW05	SW05	SW05	20/09/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			

Table C Surface Water Anaytical Results
Project Number: 67774
Project Name: Proposed Tallawong High School DSI

				Non-Metallic Inorganics					Major Cations		Ionic Balance			Inorganics		Other
				Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Calcium	Magnesium	Electrical Conductivity (Lab)	Hardness as CaCO3	pH (Lab)	Nitrite + Nitrate as N	Phosphate (as P)	Turbidity
				mg/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	µS/cm	mg/L	pH Units	mg/L	mg/L	-
EQL				0.01	0.02	0.02	0.2	0.2	0.5	0.5	10	5	0.1	0.05	0.01	1
ADWG (2011) Aesthetic - Updated March-2021				0.11								200	6.5-8.5			5
ADWG (2011) Health - Petroleum Products (Adopted from WHO Drinking Water 20																
ADWG (2011) Health - Updated March-2021					11.29	0.91							6.5-			
ADWG (2011) Health x 10 (Recreational) - Updated March-2021					112.9	9.1										
ANZECC 2000 Irrigation Short Term Trigger Values																
ANZG (2018) Freshwater 95% toxicant DGVs				0.9	2.4											
Field_ID	**Location_Code**	**Well**	**Sampled_Date_Time**													
SW03	SW03	SW03	20/09/2022	0.21	<0.02	<0.02	1.2	1.2	32	19	350	170	7	<0.05	0.09	17
SW04	SW04	SW04	20/09/2022	<0.01	<0.02	<0.02	0.6	0.6	51	23	430	190	7.9	<0.05	0.02	7.5
SW05	SW05	SW05	20/09/2022	0.31	0.85	0.04	3.19	2.3	720	44	2400	2100	7.6	0.89	0.02	22

Appendix C Proposed Concept Plan



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02	26/11/2024	FINAL DRAFT ISSUE FOR REF	TD
03	09/12/2024	UPDATED DRAFT ISSUE FOR REF	TD
04	18/12/2024	UPDATED SITE PLAN	TD
05	20/12/2024	ISSUE FOR REF	TD
06	08/01/2025	ISSUE FOR REF	TD
07	10/01/2025	ISSUE FOR REF	TD
08	16/01/2025	ISSUE FOR ARBORIST	TD
09	20/01/2025	ISSUE FOR REF	TD

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This drawing should be read in conjunction with all the standard notes & abbreviations in the drawing pack, relevant contracts, specifications and drawings. Dimensions are in millimetres. Levels are metres. Do not scale off drawings. Use figured dimensions only. Check dimensions on Site. Report discrepancies immediately.

PROJECT
NEW HIGH SCHOOL FOR SCHOFIELDS AND TALLAWONG
GUNTAWONG ROAD, TALLAWONG NSW 2155

DESCRIPTION
SITE PLAN

1:500
0 5 10 15 25

PROJECT No	DRAWING No				REVISION
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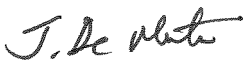
2	John De Martin	Chris Bielby	John De Martin		18/12/2024
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