Trustee for Huntingwood Property Trust

Remedial Action Plan

Huntingwood East
Augusta Street, Blacktown NSW

20 February 2024

62742/146178 (Rev 3)

JBS&G Australia Pty Ltd

www.jbsg.com.au

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Appendix A	Soil Summary Table
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Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AF/FA	Asbestos Fines/Fibrous Asbestos
AMP	Asbestos Management Plan
Bgs	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
B(a)P	Benzo(a)pyrene
COPC	Contaminants of Potential Concern
DLWC	Department of Land and Water Conservation
DP	Deposited Plan
DQIs	Data Quality Indicators
DQOs	Data Quality Objectives
DSI	Detailed Site Investigation
EPA	Environment Protection Authority
EIL/ESL	Ecological Investigation/Screening Level
ENM	Excavated Natural Material
HIL/HSL	Health Investigation/Screening Levels
LAA	Licenced Asbestos Assessor
LEP	Local Environmental Plan
LOR	Limit of Reporting
OCPs	Organochlorine Pesticide
OEH	NSW Office of Environment and Heritage (includes EPA)
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NOW	NSW Office of Water (formerly Department of Water and Energy, DWE)
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PSI	Preliminary Site Investigation
QA/QC	Quality Assurance/Quality Control
RAP	Remedial Action Plan
SEPP 55	State Environmental Planning Policy 55
SWNSW	SafeWork NSW
TCLP	Toxicity Characteristic Leaching Procedure
TRH	Total Recoverable Hydrocarbons
VENM	Virgin Excavated Natural Material

1. Introduction

1.1 Background

JBS&G Australia Pty Ltd (JBS&G) has been commissioned by The Trustee for Huntingwood Property Trust to prepare this report in accordance with the technical requirements of the Secretary's Environmental Assessment Requirements (SEARs), and in support of the State Significant Development Application (SSD- 36138263) for the proposed Augusta Street warehouse and distribution centre at Augusta Street, Blacktown.

The site is located at Augusta Street, Blacktown, within the Blacktown local government area (LGA). The site comprises multiple parcels of land and is legally described as:

- Lot 1 DP835264
- Lots 218-219 DP457024
- Lot 2151 DP135859
- Lot 2 DP516449
- Lot 163-164, 168-188 and 216 DP8716
- Lot 1 DP119616
- Lots 4-6 DP226294
- Lots 50-52 DP1144623
- Lot 7 DP803359
- Lots 6-10 DP801210
- Lot 4 DP585492
- Lot 4 DP5853442
- Lot 2 DP1263824.

The location and current layout of the site are shown in **Figures 1** and **2,** respectively.

The central and eastern portion of the site comprises a vacant land parcel and a Telstra exchange. The western portion of the site comprises abandoned residential houses, truck depot, car scrap yard/mechanic and storage yard. The site is situated to the north of the M4 Western Motorway, to the west of Prospect Highway and south of the Great Western Highway, with a total area of approximately 26.6 hectares (ha).

Previous investigation works have been undertaken as summarised in **Section 3**. Contamination was historically identified at the site consisting of asbestos impacts, historical petroleum infrastructure and localised areas of petroleum hydrocarbon impacted soils. A previous Remedial Action Plan (RAP) (JBS&G 2021a[1]) was subsequently prepared to manage the identified impacts in order to make the central and eastern portion of the site suitable for the proposed commercial / industrial land-use.

Following completion of the site investigation works on the central and eastern portion of the site, the client acquired 3 and 14 Augusta St and 426 Flushcombe Rd, which comprise the western

[1] *Remedial Action Plan*, Huntingwood East, Augusta Street Blacktown NSW, JBS& Australia Pty Ltd, 16 December 2021 (JBS&G 2021a).

portion of the site. As only limited investigation works (DP 2021[2]) have been completed on the western portion, further assessment is required to allow preparation of a DSI for the entire site.

JBS&G (2023b[3]) undertook a detailed site investigation including additional site investigation works in the western portion of the site, review available site contamination data for the entire site and an assessment of site conditions in relation to future commercial/industrial land use, including the identification of site management/remediation requirements to support development of the site.

An updated RAP is now required with the proposed development of the site to control removal of underground petroleum storage system (UPSS) and remediation of impacted soils, to make the site suitable. The RAP details the procedures that will be implemented to remediate the impacted soils. The RAP has been prepared in accordance with guidelines made or endorsed by the NSW Environment and Protection Authority (EPA) and by consideration of the principles of ecologically sustainable development (ESD). The RAP has additionally been developed to address the Secretary's Environmental Assessment Requirements (SEARs) issued by the NSW Department of Planning and Environment for warehouse and distribution centre application, condition 16.

1.2 Objectives

The objective of this RAP is to document the procedures and standards to be followed in order to remove the potential contamination risks for the proposed development such that the site can be made suitable for the intended commercial / industrial land use.

[2] *Pre-Purchase Due Diligence Preliminary Contamination Assessment, Proposed Industrial Development, 3 & 14 Augusta Street and 426 Flushcombe Road, Blacktown,* Douglas Partners Pty Ltd, 30 November 2021 (DP 2021)

[3] *Detailed Site Investigation, Huntingwood East, Augusta Street, Blacktown NSW,* JBS&G Australia Pty Ltd, 22 June 2023 (JBS&G 2023b)

2. Site Condition & Surrounding Environment

2.1 Site Identification

The location of the site is shown in **Figure 1**, and the current layout is shown in **Figure 2**. The site details are summarised in **Table 2.1**.

Table 2.1 Summary Site Details

Site Legal Identifier	Lot 1 DP 835264, Lot 163, Lot 164, Lot 168 to Lot 188, Lot 216 DP 8716, Lot 6 to Lot 10 DP 801210, Lot 218 and Lot 219 DP 457024, Lot 2 DP 516449, Lot 2151 DP 135859, Lot 4 DP 585492, Lot 4 DP 583442, Lot 1 DP 119616, Lot 2 DP 1263824, Lot 4 to Lot 6 DP 226294, Lot 50 to Lot 52 DP1144623 and Lot 7 DP 803359, see **Figure 2**
Site Address	Augusta Street, Blacktown NSW
Site Area	26.6 ha
Local Government Authority	Blacktown City Council
Approximate Coordinates (GDA 94 Map Grid of Australia (MGA) 56)	E: 306500 N: 6257710
Current Zoning (Blacktown Local Environmental Plan Amendment (Western Sydney Employment Area) 2013)	IN1 – General Industrial
Previous Land Uses	Previous site uses were generally rural/residential rural including grazing/market gardens and poultry operations and some commercial properties including truck depot and car scrap yard/mechanic.
Current Land Uses	The majority of the site is vacant, a Telstra exchange in the centre of the site and several operational lots in the western portion of the site including mechanic, truck depot and storage yard.

2.2 Site Description

The central and eastern portion of the site was inspected on 26 August 2021 and the western portion was inspected on 9 May 2022, by a JBS&G Senior Environmental Consultant to assess site conditions with regards to previous reports, and to identify any potentially contaminating conditions and/or activities not previously identified, with key observations documented below. Main site features are visible on **Figures 4A** to **4D**.

At the time of the inspections the central and eastern portion of the site was found to be vacant, with the site surface consisting of undulating land covered with long grass. A Telstra exchange was located in Lot 164 DP 8716. The dense grass cover prevented a detailed inspection of the site surface. Additionally, the overgrown grass and saturated areas restricted access to portions of the site.

The western portion of the site comprised several operational lots including a mechanic, truck depot and storage yard, as well as four abandoned residential houses, various stockpiles, USTs, ASTs and asbestos fragments across the ground surface.

Access to the site is gained from Augusta Street and Flushcombe St. A small stream (Blacktown Creek) is present through the central portion of the site running north to south. Electrical transmissions lines are present across the southern portion of the site.

The following was observed within the Central Western Assessment Area (see **Figure 4A**):

- Dense vegetation is present.

- Backfilled trenches were observed, with small stockpiles on the eastern side of the trench. Potential ACM was observed in situ in this area. South of the trench was sparse building rubble (concrete and brick) and disturbed surface soils (in the location of a former structure). An area of built-up land was observed to the west of the trenches.
- Trenches were also observed in the south-eastern portion of the area with mounded soil adjacent to the trenches.
- The northern portion of this area was mounded higher than the southern portion of the area and a stockpile was observed in the northern central portion of the area.

The following was observed within the Eastern Central Assessment Area (See **Figure 4B**):

- A Telstra exchange within Lot 164 DP 8716.
- A stockpile of tyres, and two small stockpiles (grassed covered but assumed to be soil) were observed in the eastern portion of the area.
- Trenches were also observed in the central southern portion of the area with mounded soil adjacent to the trenches.
- Built up land was observed in the north eastern portion of the area.

The following was observed within the Eastern Assessment Area (See **Figure 4C**):

- Built up land and a small stockpile was observed in the north portion of the area.
- Two potential ACM fragments were observed on the dirt access road in the central portion of the area.
- Discarded concrete was observed adjacent to the dirt access road.

The following was observed with the Western Assessment Area (See **Figure 4D**):

- An operational mechanic workshop with disused USTs, 200 L diesel storage drums, and scrap car parts. Surface staining was observed in the vicinity of the 200 L drums and leaking car parts.
- The eastern part of Lot 1 DP 835264 contains a large stockpile/mound.
- The southern part of this area contained four abandoned houses.
- An operational truck depot was present in the southwestern portion of the site. An AST with bowsers was present on the western boundary. A storage container along the southern boundary contained IBCs.
- Storage yard was present in the southeastern portion of this area. An AST and bowser was present in this portion.

Discoloured areas apparent on aerial imagery were noted to be blackberry bushes during the site inspection.

Not all stockpiles referenced in the historical reports were able to be inspected and / or identified due to thick/long grass cover and access limitations as discussed above.

2.3 Surrounding Land Use

The current land uses of adjacent properties or properties across adjacent roadways are summarised below.

- North – The Great Western Highway, then low density residential properties;
- East – The Prospect Highway, beyond which is St Bartholomew's church and cemetery;

- South – The Western Motorway (M4) then rural residential/drive-in theatre/Raging Waters Sydney (waterpark); and
- West – Flushcombe Road and commercial/industrial units.

2.4 Topography

The topography of the site according to the Prospect Topographic and Orthophoto Map (sheet 9030-2N third edition) ranges from 68 m Australian Height Datum (AHD) to 90 m AHD. The land is undulating, with slopes of approximately 5 to 15 degrees running from the east towards Blacktown Creek in the central portion of the site. An undulating slope of 5 to 10 degrees also runs from the central portion of the site towards a small drainage channel on the western boundary of the site.

2.5 Site Setting

2.5.1 Regional Geology

A review of the ESPADE 2.2 tool (OEH 2021[4]) indicates that the site exists on Blacktown Residual soils. Relevant details of the soil landscapes are provided following:

- **Geology:** Wianamatta Group – Ashfield Shale consisting of laminite and drak grey siltstone, Bringelly Shale which consists of shale with occasional calcareous claystone, laminite and infrequent coal, and Minchinbury Sandstone consisting of fine to medium-grained quartz lithic sandstone.
- **Soils:** Shallow to moderately deep (>100 cm) hardsetting mottled texture contrast soils, red and brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and in drainage lines.
- **Landscape:** Gently undulating rises on Wianamatta Group shales. Local relief to 30 m, slopes usually >5%. Broad rounded crests and ridges with gently inclined slopes. Cleared Eucalypt woodland and tall open-forest.
- **Limitations:** localised seasonal waterlogging, localised water erosion hazard, moderately reactive highly plastic subsoil, localised surface movement potential.

Based on the review of the Stage 2 Assessment report (JBS 2010a) and the Additional Site Investigation (WSP, 2020b), details of the encountered geology, hydrology and potential hydrogeology of the site are provided below.

2.5.2 Stockpile/Fill

The stockpiled materials encounter on-site included clays and sands, with building rubble including PVC pipe, plastic sheeting, bricks, tile fragments, concrete fragments, plasterboard, timber, slag and ash, and fragments of ACM.

Fill material was predominantly identified in the western and eastern portions of the site, in the vicinity of former buildings. Fill generally comprised silty clay, silty sand or a silty gravel with some inclusions of building rubble with ACM in several locations. Fill associated with the former buildings was identified to a maximum depth of 0.8 m below ground surface (bgs).

Fill material in the central northern portion in the vicinity of the former earthworks was identified to a depth of 2.1 m bgs, and comprised silty clay with inclusions of shale and ironstone gravels. Concrete was also identified in one location.

[4] OEH (2021) *ESPADE 2.2*. NSW Office of Environment and Heritage, accessed 26 June 2022 https://www.environment.nsw.gov.au/eSpade2Webapp

2.5.3 Natural Soils

Natural soils comprised red/orange/yellow silty clay with some weathered shale gravels. A weathered shale was observed from 0.6 to 6.0 m bgs.

2.5.4 Salinity

The previous investigation (JBS 2010a) identified salinity indicator plants along the alignment of Blacktown Creek in the central portion of the site. WSP (2020b) reported salinity testing of soils in a previous investigation (referenced as GT (2015) in WSP (2020b)) indicated soil salinities ranging from "Not Saline" to "Moderately Saline". WSP conducted a salinity assessment in 2020 that concluded slightly to moderately saline conditions exist at the site.

2.5.5 Acid Sulfate Soils

DLWC (1998[5]), states that acid sulfate soils (ASS) are likely to be located in coastal lowlands up to approximately 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), typically indicating that such conditions have not been identified based on regional mapping of geology and soil. In addition, the Council planning certificates (provided in JBS&G 2022) identified that the site is not affected by acid sulfate soils.

2.5.6 Hydrology

Precipitation is expected to infiltrate the surface soils. Following periods of heavy rainfall, surface runoff from the central and eastern portions of the site would be expected to flow towards Blacktown Creek. Surface runoff from the western portion of the site is expected to travel in a general westerly direction toward a small drainage channel on the western boundary of the site.

2.5.7 Hydrogeology

WSP (2020b) installed three monitoring wells in the western portion of site to a maximum of 6 m bgs. Groundwater was not observed during the drilling works. Groundwater was encountered at 5.431 m below top of casing (BTOC) in one monitoring well on 8 May 2020, and the remaining two wells were reported to be dry. Based on the data from MW01, WSP described the groundwater at the site as circumneutral and mildly oxidising, saline and poorly oxygenated.

Based on local topography, groundwater flow is anticipated to be to the north or northeast, generally in the direction of Blacktown Creek. Groundwater occurring in the shales and sandstones underlying the site is expected to be confined to zones of relatively higher permeability (i.e. fractures in bedrock and within interbedded sands and sandy clays), and therefore limited in extent. However, there may be localised areas of seepage.

Based on the review of JBS (201b) and WSP (2007[6]) a number of water bearing zones are present in the Huntingwood East region: one zone occurring between 11 and 28m bgs; another between 56 and 62m bgs; and a further zone below 125m bgs.

[5] *Guidelines for the Use of Acid Sulfate Soil Risk Maps*. Acid Sulfate Soil Management Advisory Committee August 1998, ASSMAC 1998.

[6] Contamination and Land Capability Study Huntingwood East Precinct, Huntingwood East Precinct Landowners Group. WSP, September 2007 (WSP 2007).

3. Site History

3.1 Summary Site History

Historic land use at the site has been a mix of rural residential, agricultural, grazing/market gardens, depot, poultry operations and car scrap yard/mechanic. Structures, including residences, sheds, and other buildings, were present in the earliest historical aerial photograph reviewed (1943). Central and eastern portion structures were removed between 1977 and 2009. Structures remain present in the western portion of the site. Several lots in the western portion of the site are occupied – including a mechanic, truck depot and storage yard. Further details are provided in JBS (2010a), WSP (2020a and 2020b), DP (2021) and JBS&G (2022).

3.2 Previous Reports

The following existing site contamination assessment reports as provided by the client were reviewed as part of this assessment:

- *Stage 2 Environmental Site Assessment, Augusta St, Blacktown, NSW*. JBS Environmental Pty Ltd, April 2010 (JBS 2010a). The assessment area for this report is shown in **Figure 3**.
- *Remedial Action Plan, 'Huntingwood East' Augusta St, Blacktown, NSW*. JBS Environmental Pty Ltd, July 2010 (JBS 2010b). The assessment area for this report is shown in **Figure 3**.
- *Environmental Due Diligence Assessment, Augusta Street, Huntingwood East, NSW*. WSP, March 2020 (WSP 2020a) prepared for a 9.2 ha parcel to support an Airtrunk Pty Ltd development proposal, the assessment area for this report is shown in **Figure 3**.
- *Additional Site Investigation, Augusta Street, Blacktown, NSW,* WSP, August 2020 (WSP 2020b) prepared for a 14.4 ha parcel to support an Airtrunk Pty Ltd development proposal, the assessment area for this report is shown in **Figure 3**.
- *Statement of Heritage Impact, Proposed Development at Augusta Street, Blacktown*, Rappoport Pty Ltd (Heritage 21), August 2020 (Heritage 21, 2020) prepared for the Airtrunk Pty Ltd portion of the site.
- *Remedial Action Plan, Huntingwood East, Augusta Street Blacktown NSW*, JBS&G Australia Pty Ltd, 16 December 2021 (JBS&G 2021a).
- *Review of Land Contamination, Huntingwood East, Augusta Street, Blacktown NSW,* JBS&G Australia Pty Ltd, 16 December 2021 (JBS&G 2021b).
- *Pre-Purchase Due Diligence Preliminary Contamination Assessment, Proposed Industrial Development, 3 & 14 Augusta Street and 426 Flushcombe Road, Blacktown,* Douglas Partners Pty Ltd, 30 November 2021 (DP 2021).
- *Pre Purchase Contamination Assessment and Review – Augusta Street, Blacktown NSW*, JBS&G Australia Pty Ltd, 1 April 2022 (JBS&G 2022a).
- *Pre Purchase Contamination Assessment and Review* – Blacktown Council Land and Telstra Exchange Compound - *Augusta Street, Blacktown NSW*, JBS&G Australia Pty Ltd, 28 March 2023 (JBS&G 2023a).
- *Detailed Site Investigation, Huntingwood East, Augusta Street, Blacktown NSW,* JBS&G Australia Pty Ltd, 22 June 2023 (JBS&G 2023b).

The contamination assessments have been supplemented by a site inspection (see **Section 2.2** and **Figures 4A** to **4D**).

It is noted (as referenced in the JBS (2010a)) that WSP previously completed a Contamination and Land Capability Study (WSP, 2007) for the site. While this report was not provided as part of the

documents for review the information from this report was included in JBS (2010a) and has been considered below.

3.3 Stage 2 Environmental Site Assessment (JBS 2010a)

During the assessment, soil samples were collected from 131 locations, comprising 64 grid-based and 67 targeted locations. Sample locations are shown in **Figures 5A**, **5B** and **5C** and analytical tables against the updated site assessment criteria are provided as **Appendix A**. It is noted JBS refers to sample / stockpile locations with the prefix SP and / or TP interchangeably in some cases. In this assessment we have adopted a convention of using the prefixes used in the sample IDs as shown in **Table C**, **Appendix A**.

The site condition in JBS (2010a) was predominantly vacant, cleared land. Some stands of trees and thickets were present, and a small stream was identified running through the central portion of the site. Stockpiled and broader fill materials were present on the site.

The stockpiled material included clays and sands, with building rubble including PVC pipe, plastic sheeting, bricks, tile fragments, concrete fragments, plasterboard, timber, slag and ash, and fragments of ACM.

Fill material to a maximum depth of 0.5 m was predominantly identified in the vicinity of former buildings. Fill generally comprised silty clay with some inclusions of building rubble including ACM in several locations.

The fill material in the vicinity of the former earthworks in the central northern portion of the site was identified to depths of 2.1 m, and generally comprised silty clay with inclusions of shale and ironstone gravels.

Natural soils comprised red/orange/yellow silty clay with some weathered shale gravels.

A comparison of the soil analytical results with the adopted site criteria indicated the following:

- ACM was identified on the ground surface and in fill material at test pit locations TP14, TP22, TP63, and TP111, and within stockpiles 3, 6, 8, 15, 19 and 31 (via test pits SP83, TP86, TP88, TP97 and SP104). Loose asbestos fibres were not identified in soil sample analysed, indicating the asbestos in fill material is in the bonded form.
- Elevated lead identified at TP24B and TP49B does not pose a risk to human health under a commercial/industrial scenario, supported by the results of additional targeted sampling and statistical analyses. The potential for the elevated lead to leach into underlying soils and groundwater is considered low.
- Elevated chromium and nickel concentrations identified in surface samples from test pits TP29, TP32, TP34-TP36, TP40, TP41 and TP43, did not exceed the adopted site criteria, and are suitable to be retained at the site under a commercial/industrial land use scenario.
- The TPH concentrations in the sample from stockpile 32 (identified in TP105) was reported above the adopted criterion, and requires further investigation, remediation or management. Stockpile 32 has a volume of approximately 600 m^3 and is comprised of silty clay with inclusions of scrap metals and tiles.
- Benzo(a)pyrene [B(a)P] (with elevated TPH and total PAHs) concentrations in the soil sample from stockpile 17 (identified in SP95) were reported above the adopted criterion, and requires further investigation, remediation or management. Stockpile 17 has a volume of approximately 375 m^3 and is comprised of silty clay with inclusions of roadbase gravel, bitumen, crushed shale and sandstone.

The report concluded that the site can be made suitable for the proposed commercial/industrial use subject to remediation of:

- ACM identified on the ground surface and in fill material at test pit locations TP14, TP22, TP63, and TP111, and within stockpiles 3, 6, 8, 15, 19 and 31; and
- Hydrocarbon (B(a)P or TPH) impacted stockpiles 17 and 32.

It was noted that further investigation was required on stockpiles 2, 5, 6, 9, 14, 18, 21, 22 and 23 to validate the material as suitable to be retained onsite.

Recommendations were made for a RAP to be developed in accordance with the relevant regulatory requirements and implemented to render the site suitable for the proposed commercial/industrial use.

3.4 Remedial Action Plan (JBS 2010b)

Based on the Stage 2 ESA (JBS 2010a), JBS prepared an RAP in general accordance with relevant guidelines made or approved by the then NSW Department of Environment Climate Change and Water (DECCW), now EPA. JBS concluded that the site can be made suitable for the proposed commercial/industrial use subject to the following remediation strategy:

- Offsite disposal of hydrocarbon (TPH and PAH) impacted stockpiles;
- Remediation or offsite disposal of ACM impacted stockpiles;
- Excavation and remediation or offsite disposal of ACM-impacted fill material at four locations across the site; and
- Validation of the residual soil/ fill materials and any imported fill materials, as well as validation of stockpiles to be retained onsite, in accordance with the relevant DECCW guidelines.

It was also noted that further investigation was required for stockpiles 2, 5, 6, 9, 14, 18, 21, 22 and 23 to validate the material as suitable to be retained onsite.

3.5 Environmental Due Diligence Assessment (WSP 2020a)

WSP Australia Pty Ltd (WSP) prepared an Environmental Due Diligence (EDD) Assessment for a portion of the site (9.2 ha parcel) to support an Airtrunk Pty Ltd development proposal. The purpose of the report was to identify potential risks and constraints to the proposed development and future use of the site, in the context of a proposed acquisition.

Based on a review of available information (RAP, JBS 2010b), a site inspection and a desktop investigation, WSP concluded the potential sources of harm to the environment or human health at the site include:

- Petroleum hydrocarbons, present in a stockpile and derived from an unknown source;
- Identified locations of ACM, derived from historical fill material, former structures and possible fly-tipping;
- Nutrients, surfactants, alkalinity, salinity and pathogens, from abattoir activities on the adjacent site to the west; and
- Other unknown contaminants in stockpiles that have not been characterised, or in fill material not yet identified.

WSP considered that the site represents an overall moderate risk of environmental liability. While the RAP (JBS, 2010b) was developed to mitigate this risk in the context of redevelopment for a future industrial use in accordance with the zoning for the site, WSP identified several data gaps in the RAP that could materially affect the environmental and financial liability for the site.

To address these data gaps, WSP recommended the following:

- Review of all available information for the site (noting WSP had not reviewed the previous investigation reports);
- Additional works to delineate previously identified impacts, new / previously untested stockpiles and to quantify fill material, to inform remediation options in the RAP;
- Additional works to investigate the potential effects of activities adjacent to the site, and to determine the contamination status of groundwater beneath the site;
- Consideration of current regulatory guidelines and legislation;
- Provision of updated protocols to address unexpected finds and health and safety during development works, taking into consideration findings from additional works; and
- Identifying key stakeholders and responsibilities in the context of the proposed development of the site.

WSP concluded that provided the updated RAP adequately addresses the data gaps and any other data gaps identified through additional investigations, and presents a suitable strategy to mitigate any identified risk, there should be no environmental constraints on development of the site.

WSP recommended a construction environmental management plan (CEMP) be developed to mitigate risks to human health and the environment through the construction phase of site development works.

WSP consider that if the above is successfully undertaken, and dependant on the findings of the additional works, the ongoing risk of environmental liability at the site to be low.

3.6 Additional Site Investigation (WSP 2020b)

WSP undertook a data gap investigation based on the EDD Assessment (WSP, 2020a) for a portion of the site (14.4 ha parcel to support an Airtrunk Pty Ltd development proposal). The investigation included installation of three groundwater wells to a maximum depth of 6 metres below ground surface (m bgs), 37 test pits to a maximum depth of 2 m bgs (targeting fill material and stockpiles) and a groundwater assessment. Sample locations are shown in **Figure 5A** and analytical tables against the updated site assessment criteria are provided as **Appendix A**. It is noted WSP labelled some samples with similar IDs to those used in JBS (2010a). For clarity in this assessment a prefix of "WSP_" was added to the sample location ID to differentiate the samples as collected by WSP.

WSP reported the site generally comprised natural, brown, moist silty clay, underlain by a red, mottled light grey clay becoming light grey, mottled red clay overlying weathered shale. Stockpiles comprised reworked clay consistent with the local natural clay found on-site, with inclusions of anthropogenic materials including potential bonded asbestos cement sheeting.

Groundwater was encountered at 5.431 m BTOC in well MW01, on 8 May 2020 and wells MW02 and MW03 were reported to be dry. No sheens or hydrocarbon odours were observed from groundwater sampled from well MW01. Due to the proximity of the Blacktown Creek and to the Prospect Reservoir, the flow direction is considered likely to be northeast.

WSP (2020b) reported the following:

- The hydrocarbon impacts previously identified in stockpile TP105 (F2) (Stockpile 32) are no longer considered to pose a "tangible" health risk and, as such, no longer require off-site disposal;
- Concentrations of heavy metals were above the adopted ecological criteria in stockpiles F1, F2, and F3; and may present a "tangible" risk to ecological receptors both on-site and off-site;

- Concentrations of cadmium, copper, and nickel in groundwater were above adopted ecological criteria. However, as the environmental receptor of Blacktown Creek is ephemeral and downstream (north of the Great Western Highway) is highly urbanised with concrete lining, straightening, and culverted sections; the potential for ecological degradation to Blacktown Creek from groundwater was deemed to be a low risk. Furthermore, the concentrations were typical of background concentrations of metals that are pervasive in the greater Sydney region; and
- The nickel concentration in groundwater sample MW01 exceeded the adopted drinking water criteria. However, no registered bores for potable water use were identified within 1 km of the site and the potential receptor of Prospect Reservoir is considered to be up-gradient of the site (i.e. groundwater flows away from the reservoir). As such, no complete source-pathway-receptor linkage was identified, and the risk was deemed to be low.

WSP (2020b) determined that there was an identified current health risk associated with contaminated soil at the time of the investigation to future commercial / industrial users of the site, including construction and maintenance workers and site workers and visitors, due to asbestos contaminants within the soil at the site.

WSP concluded the RAP (JBS, 2010b) remains suitable for the site, subject to the following minor amendments:

- Previously identified hydrocarbon impacted soils in stockpile TP105 (F2) (Stockpile 32) no longer requiring off-site disposal; and
- Stockpile 6 (F3) was identified to contain nickel and zinc concentrations above recreational and commercial/industrial ecological criteria. As such, the on-site re-use of Stockpile 6 is only suitable at locations with no ecological value, such as under buildings, and in pathway or road subgrades.

WSP considers that treatment of ACM and the unexpected finds protocol remained valid as per the JBS (2010b) RAP.

It appears WSP mis-reported results for stockpiles F2 and F3. Based on a review of both JBS (2010a) and WSP (2020b), stockpile 'F2' is 'TP86' / 'Stockpile 6' and stockpile 'F3' is 'TP105' / 'SP105' / 'Stockpile 32'. This does not affect the outcome of the report and is considered in this review.

3.7 Statement of Heritage Impact (Heritage 21, 2020)

Heritage 21 prepared a Statement of Heritage Impact for a portion of the site (9.2 ha parcel to support an Airtrunk Pty Ltd development proposal).

Heritage 21 reported the site is not listed as an item of environmental heritage under Schedule 5 of the Blacktown Local Environmental Plan 2015, the NSW Heritage Register, the National Heritage List, the Commonwealth Heritage List, the National Trust Register (NSW) and / or the former Register of the National Estate.

With regards to a heritage item adjacent the site to the east (St Batholomew's Church), Heritage 21 concluded that the proposed development complies with the pertinent heritage controls and would "engender a minimal impact" on the heritage significance of the heritage item in the vicinity of the site and recommended that Blacktown Council view the application favourably on heritage grounds.

3.8 Remedial Action Plan (JBS&G 2021a)

JBS&G prepared a RAP (JBS&G 2021a) based on the previous reports to manage the identified impacts in order to make the site suitable for the proposed commercial / industrial land-use. This included remediation and/or management of the following impacts:

- ACM impacted stockpiles 3, 6, 8, 15, 19 and 31, comprising a total volume of approximately 1,500 m^3;
- ACM on the ground surface and in fill material at test pit locations TP14, TP22, TP63, TP111, JACM1 and JACM2 associated with former buildings or former stockpiled material;
- Elevated PAH and zinc concentrations (that exceed generic criteria protective of ecological receptors) at various locations that are only suitable for on-site re-use at locations with no/low ecological value, such as under buildings, and in pathways or road subgrades; and
- Further investigation is required for Stockpiles 2 (TP82), 5 (TP85), 9 (TP89), 14, 18 (SP96), 21 (TP98A), 22 (TP99), 23 (TP100), JBS1 and JBS2 to verify the material as suitable to be retained on-site without treatment.

JBS&G concluded that subject to successful implementation of this RAP and subject to the limitations presented in the respective investigation reports, the site can be made suitable for commercial/industrial land use.

3.9 Review of Land Contamination (JBS&G, 2021b[7])

JBS&G (2021b) prepared a review of contaminated land that collated available site contamination data and completed an assessment of site conditions in relation to future commercial/industrial land use, including the identification of site management/remediation requirements to support divestment of the property. JBS&G (2021b) considered that a site management strategy is required to address identified asbestos in stockpiled and surface / fill material, as well as unexpected finds. Tabulated data from previous investigations is provided in **Table C**, **Appendix A**.

JBS&G reported that the location of bonded asbestos impacts has been documented in previous investigations; however, it is not likely all asbestos impacts have been identified. Following vegetation removal and prior to material movement, soils should be continually assessed as earthworks advance to verify areas are free of asbestos. Unexpected ACM or other impacts should be assessed and managed under the unexpected finds protocol.

Aesthetic issues, including ACM, demolition waste and general waste, was found to require management.

JBS&G reported that identified soil impacts can be managed through an appropriate RAP. An asbestos management plan (AMP) is required to manage identified asbestos to meet WHS Regulations until such time as identified asbestos risks are mitigated.

[7] *Review of Land Contamination Huntingwood East Augusta Street, Blacktown NSW*, JBS&G Australia Pty Ltd, 16 December 2021 (JBS&G, 2021b)

3.10 Pre-Purchase Due Diligence Preliminary Contamination Assessment (DP 2021)

Douglas Partners (DP 2021) completed a pre-purchase due diligence preliminary contamination assessment for 3 and 14 Augusta St and 426 Flushcombe Rd (western portion of the site). DP (2021) reviewed site history information, excluding safework NSW schedule 11 hazardous chemicals notification and council planning certificates section 10.7 (2 & 5), undertook a site walkover, completed soil sample locations, groundwater sampling from five monitoring wells, and laboratory analysis for identified COPC including heavy metals, volatile organic compounds (VOCs), TRH, polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphorus pesticides (OPPs), polychlorinated biphenyls (PCBs), phenols, herbicides, perfluoroalkyl and polyfluoroalkyl substances [(PFAS) in groundwater only] and asbestos. The DP (2021) property area (western portion of the site) was 3.5 hectares, with the properties historically used for rural residential, grazing/market gardens, depot, poultry operations and car scrap yard/mechanic. During the site inspection in October 2021 the following were identified; various stockpiles, USTs and ASTs, asbestos fragments across the ground surface, anecdotal information from site discussions suggesting fly tipping has been a common occurrence, cut and fill and retaining walls to generate site levels, structures were present on the site which were constructed pre-1980s. DP (2021) reported that the sampling rate for the assessment was approximately 40% of that recommended for a detailed contamination assessment (for chemical analysis) and approximately 20% of that recommended for a detailed asbestos assessment.

Hydrocarbon odours were observed adjacent USTs in the northern portion (BH6 and BH7) and in the southern portion (BH24 and BH25) laboratory results were below site criteria. DP (2021) reported elevated TRH C10-C16 (2,900 mg/kg) and TRH C16-C34 (7,700 mg/kg) concentrations exceeding management limits at location SS6, elevated B(a)P (3.3 and 2.1 mg/kg) at locations TP13_0.1-0.2 and SS5, respectively, exceeding ecological screening levels, and OCPs (28 and 112.6 mg/kg) at locations BH3_0.2-0.3 and BH5_0.2-0.3, respectively, not exceeding site criteria. Friable asbestos was observed within the fill material across both properties. Groundwater results were generally below site criteria with the exception of minor detections of copper in well MWA (2 µg/L), which is within natural background levels.

DP (2021) recommended the following additional works are undertaken:

- Tankpit (post UST removal) investigation works;
- Footprints validation sampling of the existing ASTs (in particular near SS6);
- Footprints validation sampling of site buildings (primarily to assess OCP concentrations);
- Potentially further groundwater assessment along the eastern boundary;
- If areas of buried poultry carcasses are encountered these should be further assessed (including screening for pathogens);
- Additional sampling (additional 60% for chemical analysis and 80% for asbestos assessment) recommended for a detailed contamination assessment;
- Removal of the UST and petroleum infrastructure and validation of the tankpit(s) and associated excavations in accordance with POEO UPSS Regulations 2019 and NSW EPA Guidelines for Implementing POEO UPSS Regulations 2020; and
- Hazardous building materials (HBM) survey on the existing buildings and subsequent appropriate removal of any identified HBM undertaken by a suitably qualified contractor prior to demolition works, with appropriate clearance certificates.

3.11 Pre Purchase Contamination Assessment and Review (JBS&G 2022a)

JBS&G (2022a) conducted a pre purchase contamination assessment and review on the central and eastern portion of the site, to present the primary contamination issues and risks at the site and assist with consideration of potential liabilities/management strategies should Logos proceed to a future potential transaction and eventual development of the acquired land.

JBS&G reported that the known impacts requiring remediation are:

- Bonded ACM impacted stockpiles 2, 3, 6, 8, 15, 19 and 31, comprising a total volume of approximately 1,700 m^3;
- Trace friable asbestos and bonded ACM within stockpile 5 which has an approximate volume of 260 m^3. The stockpile could be disposed off-site to a licensed facility as General Solid Waste (GSW) mixed Special (asbestos). Alternatively, the materials could be contained on-site under a marker and capping layer (that comprises 0.5 m of clean capping material and/or hardstand);
- ACM on the ground surface and in fill material at test pit locations TP14, TP22, TP63, TP111, JACM1 and JACM2 associated with former buildings or former stockpiled material. It is noted that additional ACM is likely to be present on the ground surfaces / stockpiled soils at the site, given that long grass cover / vegetation precluded a thorough inspection of the ground surface during investigation activities. It is recommended that a thorough ground surface inspection be completed during future vegetation removal in order to avoid cross-contamination of asbestos / non-asbestos impacted soils in subsequent earthworks; and
- Elevated zinc and PAH (from previous investigations) concentrations within both stockpiled and in-situ soil samples not considered to pose an unacceptable risk under the proposed development scheme should the materials be retained in areas of low ecological significance (i.e. under future hardstand) or where imported soils are used for landscaped areas.

JBS&G also reported that perched groundwater was present at relatively shallow depths (<5.5 m) within natural silty clay soils / shale rock. If dewatering is proposed and off-site disposal of extracted water is necessary, such activities may require treatment (to remove suspended sediments, potentially pH adjustment and address heavy metals levels) prior to release to stormwater, if permitted by the consent authority.

3.12 Pre-Purchase Contamination Assessment and Review – Telstra Exchange Compound (JBS&G 2023a)

JBS&G conducted a pre purchase contamination assessment and review on the Blacktown Lands and Telstra Exchange areas, to present the primary contamination issues and risks at the site and assist with consideration of potential liabilities/management strategies prior to a future potential transaction and eventual development of the acquired land.

JBS&G reported the following with respect to the Telstra Exchange area:

- The ground surfaces appeared to follow the natural topography, with no evidence of significant filling. Minor levelling with recycled aggregate materials was apparent underlying/surrounding the demountable structure.

  It was noted that no visible signs (fill point, UST dip point, vent pipe, etc,.) of the presence of underground storage tanks (USTs), that might be used as petroleum storage for backup generators (within Telstra exchange sites), were observed within the compound. No odours, staining or evidence of contamination was observed on the Telstra compound ground surface.

- A limited soil sampling investigation of in-situ materials at three locations (HA01, HA02, HA03) within the Telstra Exchange compound was completed.
- Representative soil samples were analysed for heavy metals, TRH/BTEX, OCPs, PCBs, PAHs and asbestos. All results were below the adopted criteria applicable to commercial / industrial land-use indicating that there were no impacts within this area that require remediation in order to make the site suitable for the proposed.

3.13 Detailed Site Investigation (JBS&G 2023b)

JBS&G (2023b) undertook a detailed site investigation in May 2022 including additional site investigation works in the western portion of the site, review available site contamination data for the entire site and an assessment of site conditions in relation to future commercial/industrial land use, including the identification of site management/remediation requirements to support development of the site. The DSI will assist the preparation of an Environmental Impact Statement (EIS), a requirement for a State Significant Development (SSD) application.

JBS&G reported the following impacts require remediation:

- Bonded ACM impacts were identified at Stockpiles 2 (TP82, SPC), 3 (SP83), 6 (TP86), 8 (TP88), 15 (SP93), 19 (TP97) and 31 (SP104), SPA (SPA1 and SPA2), comprising a total volume of approximately 2,000 m^3 (based on historical assessments).
- Bonded ACM impacts were identified on the ground surface in the western portion of the site (Lot 183 DP 8716) and surface locations SS1, SS2 and SS4 and in fill material at test pit locations TP14, TP22, TP63, TP111, JACM1 and JACM2 associated with former buildings or former stockpiled material.
- Friable asbestos exceeding health criteria was reported within DP_TP12 at 1.0-1.1, DP_TP20 at 0.1-0.15 m depth, surface sample DP_SS4, and May 2022 sample AQ SB02-0-1.0, all within the western portion of the site.
- Friable and bonded asbestos was reported within stockpile 5 (also known as TP85) which has an approximate volume of 260 m^3. The stockpile has significant quantities of building and demolition wastes (including ACM).
- Trace chrysotile asbestos was reported in DP (2021) sample locations BH24_0.1-0.2 and TP17_0.1-0.2, <0.001 %w/w, below the assessment criteria.
- It is noted that additional ACM is likely to be present on the ground surfaces / stockpiled soils at the site, given that long grass cover / vegetation precluded a thorough inspection of the ground surface during investigation activities. It is recommended that a thorough ground surface inspection be completed during future vegetation removal in order to avoid cross-contamination of asbestos / non-asbestos impacted soils in subsequent earthworks. Any materials identified to contain building and demolition wastes should be isolated for further investigation given the inherent higher risk of identifying asbestos within the materials.
- The asbestos impacted stockpiles and hotspots will require to be disposed off-site to a licensed facility as Special (asbestos) Waste as a result of the reported contaminant levels herein. Alternatively, the materials could be contained on-site under a marker and capping layer (that comprises 0.5 m of clean capping material and/or hardstand) and managed on-site through the preparation/implementation of an Asbestos Register and Asbestos Management Plan (AMP) to address obligations under the Work Health and Safety Act and Regulations.
- TRH C10-C16 (2,900 mg/kg) and TRH C16-C34 (7,700 mg/kg) at surface sample location SS6 exceeds management limits (1,000 mg/kg and 3,500 mg/kg, respectively). TRH F2 (180

mg/kg) at surface sample SB21-0.1-0.2 exceeds ecological criteria (180 mg/kg) and is located within stained and odorous soils in the vicinity of 200L drums. These locations will require remediation and/or management.

- Zinc and PAH (from previous investigations) within both stockpile and in-situ soil samples are not considered to pose an unacceptable risk under the proposed development scheme should the materials be retained in areas of low ecological significance (i.e. under future hardstand) or where imported soils are used for landscaped areas.
- Groundwater on the site reported slightly elevated metal levels, however the concentrations are considered to reflect urban background conditions, given that there was no significant change of these constituents between up and down gradient monitoring wells and no significant source material identified within site soils. The slight ammonia exceedance is reflective of the site historically within an agricultural area and is not significant enough to require remediation. The groundwater does not require management.
- Soil-vapour was found to be generally absent of detectable concentrations of TRHs and/or VOCs and below the adopted criteria. Whilst sources of potential volatile contaminant impact were identified at the site (USTs), direct sampling of soil-vapour immediately below existing concrete slabs indicated that sub-surface gas was free from volatile constituents at concentrations which represented potential risks to future receptors.
- It was considered that the site is suitable for the proposed commercial/industrial land use, subject to appropriate remediation and/or management of the identified soil impacts.

JBS&G (2023b) recommended that an updated RAP be developed in accordance with the relevant regulatory requirements to address the identified contamination issues to render the site suitable for the proposed land uses as well as removal of the USTs and associated petroleum infrastructure (as per the UPSS Regulations). The remediation works were deemed Category 2, from review of the site location and proposed activities. JBS&G (2023b) recommended an AMP be developed to manage potential asbestos risks consistent with WHS Regulations.

Due to access restrictions, intrusive investigations were unable to be undertaken within the Telstra exchange portion of the site (Lot 164 DP 8716). This portion of the overall site was concluded to have a low potential for contamination which was advised to be confirmed by walkover inspection.

4. Summary of Known Contamination

4.1 General

Environmental data as abstracted from JBS&G (2023b) is provided as **Appendix A**. Concentrations of COPCs have been screened against a range of criteria as appropriate to the assessment of potential contamination on commercial/industrial sites.

The following sections present a conceptual site model (CSM) for the site prior to the commencement of remediation. The purpose of the CSM is to identify potentially complete source-pathway-receptor linkages at the site such that an informed assessment of potential remedial options can be made.

4.2 Conceptual Site Model

4.2.1 Sources of Contamination

Sources of contamination exist at the site as reported in JBS&G (2023b). Point sources are shown on **Figures 6A** to **6D**.

- UPSS, comprising two USTs and associated infrastructure located in Lot 1 DP 835264, one AST in Lot 187 DP 8716 and one AST in Lot 183 DP 8716. The contests of the USTs and ASTs were not able to be determined during the DSI.
- Surface oil staining in proximity to the 200L drums in Lot 1 DP 835264.

In addition to the above, fill material across the site was observed to contain building and demolition waste. This was found to be inclusive of asbestos containing materials (ACM).

4.2.2 Affected Media

The available environmental data indicates that surface, sub-surface and stockpiled soils at the site are contaminated. Soil media has been identified to contain a range of typical urban/industrial contaminants, most notably Asbestos.

Soil was identified to contain friable and bonded asbestos, heavy metals, PAHs and TRH. Exceedances of site assessment criteria are shown on **Figures 6A** to **6D**. Each of the areas of affected soils are discussed following:

- Bonded ACM impacts were identified at Stockpiles 2 (TP82, SPC), 3 (SP83), 6 (TP86), 8 (TP88), 15 (SP93), 19 (TP97) and 31 (SP104), SPA (SPA1 and SPA2), comprising a total volume of approximately 2,000 m^3 (based on historical assessments).
- Bonded ACM impacts were identified on the ground surface in the western portion of the site (Lot 183 DP 8716) and surface locations SS1, SS2 and SS4 and in fill material at test pit locations TP14, TP22, TP63, TP111, JACM1 and JACM2 associated with former buildings or former stockpiled material.
- Friable asbestos exceeding health criteria was reported within DP_TP12 at 1.0-1.1, DP_TP20 at 0.1-0.15 m depth, surface sample DP_SS4, and May 2022 sample AQ SB02-0-1.0, all within the western portion of the site.
- Friable and bonded asbestos was reported within stockpile 5 (also known as TP85) which has an approximate volume of 260 m^3. The stockpile has significant quantities of building and demolition wastes (including ACM).
- TRH C10-C16 (2,900 mg/kg) and TRH C16-C34 (7,700 mg/kg) at surface sample location SS6 exceeds management limits (1,000 mg/kg and 3,500 mg/kg, respectively). TRH F2 (180 mg/kg) at surface sample SB21-0.1-0.2 exceeds ecological criteria (180 mg/kg) and is located within stained and odorous soils in the vicinity of 200L drums.

- Zinc and PAH concentrations within both stockpiled and in-situ soil samples, exceed ecological criteria, however are below health criteria.
- Petroleum infrastructure comprising two USTs within Lot 1 DP 835264, one AST in Lot 187 DP 8716 and one AST in Lot 183 DP 8716. DP (2021) undertook GPR on the UST area and reported approximate dimensions 1.5m x 3m (southern tank) and 1.5m x 4m (northern tank).

Groundwater on the site reported slightly elevated metal levels, however the concentrations were considered to reflect urban background conditions given that there was no significant change of these constituents between up and down gradient monitoring wells and no significant source material identified within site soils. The slight ammonia exceedance was considered to reflect the site historically within an agricultural area and was considered not significant enough to require remediation and/or further investigation.

Soil-vapour was found to be generally absent of detectable concentrations of TRHs and/or VOCs and below the adopted criteria. Whilst sources of potential volatile contaminant impact were identified at the site, direct sampling of soil-vapour immediately below existing concrete slabs indicated that sub-surface gas was free from volatile constituents at concentrations which represented potential risks to future receptors.

4.2.3 Human and Ecological Receptors

The primary human receptors of concern are future commercial users of the site and users of commercial properties surrounding the site. Other potential receptors will include construction workers during the site redevelopment, and potential future sub-surface intrusive / maintenance workers.

The primary ecological receptors of concern are Blacktown Creek, in the central portion of the site. The environmental receptor of Blacktown Creek is ephemeral and downstream (north of the Great Western Highway) is highly urbanised with concrete lining, straightening, and culverted sections; the potential for ecological degradation to Blacktown Creek from groundwater was deemed to be a low risk. Furthermore, the concentrations were typical of background concentrations of metals that are pervasive in the greater Sydney region.

4.2.4 Potential and Complete Exposure Pathways

JBS&G (2023b) summarises potential human receptors and associated exposure pathways for the site.

Table 4.1 Summary of Potential Human Exposures

Receptor	Location	Media	Potential Exposure Pathways
Commercial Worker (adult)	Commercial building	Soils[1]	Inhalation (vapours) Oral and dermal in unpaved areas
		Groundwater	Inhalation (vapours)
		Vapour	Inhalation (vapours)
Construction worker or intrusive maintenance worker (short duration)	Construction areas/ Excavations	Soils	Inhalation (vapours and particulates) Oral Dermal
		Groundwater	Inhalation (vapours) Oral (infiltrating seepage water) Dermal (infiltrating seepage water)
		Vapour	Inhalation (vapours)

It is understood that the future ground surface at the site will largely comprise of hardstand which will result in limited potential human exposure pathways to underlying site soils. On this basis, the soil exposure pathways presented will only be applicable in minor areas of exposed soils.

As the site is largely covered by vegetation (grass cover/dense vegetation), the potential for windblown dust migration of contamination from the site is generally low, however moderate in areas of exposed soils, present in areas of high traffic areas. The potential for contamination migration via surface water movement and infiltration of water and subsequent migration through the soil profile is further considered moderate given the absence of impervious pavements and the reported geology/anticipated underlying fill conditions.

Given the nature of the underlying soils/fill, migration of contamination via groundwater movement is considered to be low in areas of natural impermeable residual clays and a moderate potential migration pathway may exist in areas of fill (which demonstrate greater permeability).

Should petroleum hydrocarbon impacted soils be present in proximity to the petroleum infrastructure (USTs, ASTs, 200L diesel drums, etc), there is a potential for petroleum vapours to be present (noting that sampling and analysis to date has not reported the presence of hydrocarbon contamination in proximity to the bore). Petroleum hydrocarbon vapours (should they exist) may pose a potential risk by intrusion to structures and accumulation within. Impacted soils should be removed as part of the decommissioning works.

Additionally, plants established within future on-site areas of plantings will potentially be exposed to impacted soils.

4.2.5 Potential Exposure Pathways

Based on the COPCs identified in various media as discussed above, the exposure pathways for the site include:

- Potential inhalation of airborne asbestos fibres and/or heavy metal impacted dust particles migrating from exposed areas of soil on site (i.e. wind-blown); and/or
- Potential dermal and oral contact to impacted soils as present at shallow depths and/or accessible by future service excavations across the extent of the site; and/or
- Potential contaminant uptake by site vegetation.

4.2.6 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 gases.

Man-made preferential pathways are likely to be generally associated with fill materials and/or established infrastructure. Fill materials are anticipated to have a high permeability. Sub-surface services are also likely to be present across the site. Preferential pathways can be created by the generally higher permeability backfill used to re-instate these trenches.

Preferential pathways also exist as Blacktown Creek which runs through the site. Blacktown Creek is a highly disturbed urban drainage channel, which has been significantly altered. The freshwater stream is considered to likely receive road and stormwater runoff from surrounding land uses, which comprise a combination of commercial/industrial, agricultural and urban/residential activities. The potential risk from site contaminates is low.

4.2.7 Data Gaps

No significant data gaps have been identified by review of the CSM. A substantial extent of site contamination assessments have been completed to characterise the environmental status of the site.

5. Remedial Options

5.1 Guidelines and Legislation

The RAP has been prepared with reference to the following guidelines:

- *State Environmental Planning Policy (Resilience and Hazards) 2021.*
- *Contaminated Sites: Sampling Design Guidelines*, September 1995 (EPA 1995).
- *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).
- EPA (2014a) *Best Practice Note: Landfarming*. NSW Environment Protection Authority.
- *National Environment Protection (Assessment of Site Contamination Measure) Measure 1999*, as amended 2013, National Environment Protection council (NEPC 2013 ASC NEPM).
- Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 under the Protection of Environment Operations Act 1997 (UPSS Regulation).
- *Waste Classification Guidelines. Part 1: Classifying Waste*, NSW EPA, November 2014 (EPA 2014b).
- *How to safely remove asbestos – Code of Practice*. Safe Work Australia, 2020, SWA (2020a).
- *How to manage and control asbestos in the workplace – Code of Practice*. Safe Work Australia, 2020 SWA (2020b).
- *Work Health and Safety Regulation 2017*.

5.2 Remediation Objectives

The remediation objectives for the site are outlined as follows:

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

The objective of the remediation is to remove risks posed by the identified contamination issues, such that the site is made suitable for the proposed development. It is a further objective to undertake works, in accordance with applicable guidelines and legislation, in a manner which is concordant with the principles of ecologically sustainable development (ESD).

5.3 Extent of Remediation

Based on the findings of the previous investigations (see **Section 3**) and pre-empting the range of available remedial options as evaluated in **Section 5.2**, the anticipated extent of the proposed remedial works includes:

- Removal of all UPSS/USTs/ASTs and any associated former operational infrastructure;
- Remediation of TRH impacted soils and grossly stained soils;
- Remediation and/or management of zinc and PAH within both stockpile and in-situ soil samples; and
- Remediation and/or management friable and bonded ACM impacts within surface soils, insitu soils samples and stockpiles.

The locations of known impacts detailed in **Section 4.2.2** are shown on **Figures 6A** to **6D**.

Pending the proposed development plans, PAH and zinc impacted materials (above the adopted ecological criteria) is only suitable for on-site re-use at locations within the development footprint with no/low ecological value, such as under buildings, and in pathway or road subgrades. Management of the materials in this manner precludes a requirement to undertake remediation.

Excluding ACM, other aesthetic impacts (building rubble) were noted in stockpiles and fill material at the site. Subject to geotechnical constraints, some hard fill materials (e.g. concrete, bricks) may be reused on the site or recycled off-site. Materials unsuitable for reuse/recycling would require remediation.

Pending the stripping of vegetation there is potential for impacts underlying the dense grass cover where contaminated fill material may be present. The potential for unexpected (contamination) finds is addressed in the Contingency Plan in **Section 7**.

5.4 Remedial Options

The preferred hierarchy of options for remediation (clean up) and/or management adopted by NSW EPA has been established within the NEPC (2013) Assessment of Site Contamination Policy Framework as follows:

- On-site treatment so that the contaminant is either destroyed or the associated risk is reduced to an acceptable level; and
- Off-site treatment so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site; or

If the above options are not practicable:

- Consolidation and isolation of the contaminant on site by containment with a properly designed barrier;
- 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, when deciding which option to choose, consideration is also required to be given to the sustainability (environmental, economic and social) aspects of each option to ensure an appropriate balance between the benefits and effects of undertaking remedial/management options. In cases where no readily available or economically feasible method is available for remediation, it may be possible to adopt appropriate regulatory controls or develop other forms of remediation.

Consideration of each of the approaches (EPA 2017), is presented in **Table 5.1**. Under the UPSS regulation, disused petroleum storage infrastructure requires to be removed from the site. Further, as part of site demolition works, residual operational site infrastructure will be removed from the site. As such, the assessment is applicable only to asbestos, TRH, heavy metals and PAH impacted soil.

5.5 Proposed Remedial Approach

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

- Inspection and removal of ACM from surface building rubble across the site. ACM impact here has historically resulted from improper demolition works that have been undertaken within the extent of the site. Sorting and removal of the asbestos impacts allows the materials to be reused;
- On-site management of asbestos, heavy metals, PAH impacted fill, anthropogenic material and materials representing an aesthetic issue, by retention under hardstand proposed in proposed Lots 2 and/or 3 in **Appendix B**, or otherwise under a sufficient depth of capping soils / growing media in the limited areas of the site where landscaping / plantings are proposed; and
- On-site treatment to remove petroleum hydrocarbons from impacted soils by bioremediation.

Management of the heavy metal and PAH impacts above the ecological criteria have been included in **Table 5.1**. However, depending on the proposed future development plans for the site, heavy metals and PAHs are not considered to pose an unacceptable risk should the materials be retained in areas of low ecological significance (i.e. under future hardstand) or where imported soils are used for landscaped areas. As noted earlier, management in this manner precludes a requirement to remediate these soils.

Table 5.1: Remedial Options Matrix

Remedial Option	Discussion	Conclusion
Option 1: On-site treatment of the soil so that the contaminants are either destroyed or the associated hazards are reduced to an acceptable level.	Asbestos on ground surface Mechanic or manual picking of ACM is only permitted within surface soils where asbestos contamination is likely the result of demolition of asbestos containing structures. Tilling of soils up to 0.1 m below the site surface is permitted, noting this may be labour intensive however is more in keeping with the principals of ESD, reducing the need to dispose of the material to landfill. However, with the long grass over a significant portion of the site, hand picking is unlikely to be successful unless careful stripping of the vegetation is conducted which will enables a thorough visual assessment of the ground surface during and after the hand picking. On-site treatment (i.e. picking of ACM fragments) from excavated fill material is not permitted in alignment with the NSW EPA position[8] on asbestos remediation.	**The preferred option for ACM on the ground surface likely the result of demolition works.**
	ACM within stockpiles and fill material On-site treatment (i.e. picking of ACM fragments) from excavated fill material is not permitted in alignment with the NSW EPA position[9] on asbestos remediation.	Not a suitable option.
	AF/FA Impacted Soil No available technology to economically remove or destroy AF/FA impacted soil.	Not a suitable option.
	Impacted Fill There are no practical means of destroying/removing heavy metals and PAHs within soils that is commercially available within Australia.	Not a suitable option.
	Petroleum Hydrocarbon Impacted Soils Hydrocarbon impacts in soils can be addressed by bioremediation / landfarming of the impacted soils. There is sufficient space on site to address the likely small volume of petroleum hydrocarbon impacted soils. The resulting validated soils as would be produced by the bioremediation works are required on-site.	**The preferred option for petroleum hydrocarbon impacted soils.**
	Anthropogenic Material and Material Representing an Aesthetics Issue Certain waste material generally identified as those materials which may pose a risk of harm (i.e. scrap metal/glass) or overt waste(s) such as tyres/timber and stained/odorous soil, poses an aesthetic issue that cannot be treated on-site.	Not a suitable option.

[8] Position statement — WA guidelines for the assessment, remediation and management of asbestos contaminated sites (nsw.gov.au) accessed 10 May 2022.
[9] Position statement — WA guidelines for the assessment, remediation and management of asbestos contaminated sites (nsw.gov.au) accessed 10 May 2022.

Remedial Option	Discussion	Conclusion
Option 2: Off-site treatment of excavated soil so that the contaminant is either destroyed or the associated hazard is reduced to an acceptable level, after which the soil is returned to the site.	<u>ACM within stockpiles, fill material and on ground surface</u> This option includes increased truck movements and the potential for exposure to emissions over a wider area. It is also noted that there are licensing issues, associated costs and limited licensed off-site treatment facilities in the surrounding area	Not a suitable option. The resources that would be required to remediate the material and available facilities precludes consideration of this option.
	<u>AF/FA Impacted Soil</u> No available technology to economically remove or destroy AF/FA impacted soil.	Not a suitable option.
	<u>Impacted Fill</u> There are no practical means of destroying/removing heavy metals and PAHs within soils.	Not a suitable option.
	<u>Petroleum Hydrocarbon Impacted Soils</u> Hydrocarbon impacts in soils can be addressed by bioremediation / landfarming of the impacted soils. However, treatment of impacted soils offsite provides no benefit over Option 1.	Not a suitable option.
	<u>Anthropogenic Material and Material Representing an Aesthetics Issue</u> The waste material poses an aesthetic issue which can't be removed from site, treated and returned.	Not a suitable option.
Option 3: Consolidation and isolation of the soil on-site by containment within a properly designed barrier.	<u>Impacted Fill – Asbestos (AF/FA and bonded), heavy metal and PAH impacted soils within stockpiles and in-situ soils</u> This option provides for the retention of impacted soil on-site beneath a physical barrier such that there are no complete exposure pathways available between the contaminated material and sensitive human receptors and/or potential ecological receptors. The barrier will comprise the hardstand surface under the proposed development scheme. In such instances, an asbestos register/asbestos management plan (AMP) would be required at the site to document the presence/location of bonded asbestos materials. Where persistent contaminants are present (i.e. heavy metals and PAHs) this would option would result in ongoing requirements for management under the contaminated land management framework. Moreover, this option minimizes the amount of waste produced from the proposed development works and is therefore consistent with ecological sustainable development (ESD) principles. On-site containment has been implemented on other commercial/industrial developments, however, will impose future liabilities and constraints on future development, likely devaluing the land. It is proposed to contain the material within proposed Lots 2 and/or 3 (refer to **Figure 7**, **Appendix B**) and restrict the requirement for long term management to one/two lot(s).	**The preferred option for asbestos within stockpiles and fill material.**

Remedial Option	Discussion	Conclusion
	Petroleum Hydrocarbon Impacted Soils The petroleum hydrocarbon impacted soils pose a potential risk of impact migration to groundwater. This is not a preferred option.	Not preferred option.
	Anthropogenic Material and Material Representing an Aesthetics Issue Anthropogenic materials (not sorted/screened) and stained soils may be relocated at depth or placed in a location(s) not readily accessible (i.e. below an engineered concrete slab associated with the built form) such that they do not represent an aesthetic issue. On this basis, following relocation, ongoing management is not required (i.e., no requirements for an EMP).	The preferred option for aesthetic issues. Given the volume of material and with consideration to the principles of ESD this is the preferred option as it is technically feasible and practicable. Should materials be unable to be retained for other reasons (i.e. geotechnical) consideration to Option 4 is appropriate.
Option 4: Removal of contaminated soil to an approved site or facility, followed where necessary by replacement with clean fill	Impacted Fill – Asbestos (AF/FA and bonded), heavy metal and PAH impacted soils within stockpiles and in-situ soils There are currently suitably licensed waste facilities in the Sydney Metropolitan region capable of accepting asbestos, heavy metal and PAH contaminated soils. Ideally suited to small volumes and where sensitive end land use is more achievable with impact being removed from the site entirely. However, it results in increased landfill disposal and as such is lower on EPA's waste minimisation hierarchy, as well as their remediation hierarchy. It also results in increased traffic and associated resource consumption than on-site treatment for the identified impacts.	A potential option.
	Petroleum Hydrocarbon Impacted Soils Similarly to as discussed for impacted fill, waste facilities are available which can receive petroleum hydrocarbon impacted soils from the site. This method is not preferred as it will result in waste generation that can otherwise be avoided by on-site treatment.	A potential option.
	Anthropogenic Material and Material Representing an Aesthetics Issue There are currently suitably licensed waste facilities in the Sydney Metropolitan region capable of accepting the identified materials. These are generally located within proximity of the site.	This option is inferior to Option 3, but an option for materials not suitable to remain at the site (i.e. should

Remedial Option	Discussion	Conclusion
		geotechnical issues identify the material as not being suitable to be retained).

5.6 Assessment of Bioremediation

EPA (2014a) has been issued by the NSW EPA to control the bioremediation of hydrocarbon impacted soils. EPA (2014a) nominates several factors that affect the potential suitability of contaminants and soils to be remediated by bioremediation (referred to as landfarming in the guideline). Each of the factors has been assessed for the site in **Table 5.2** as applicable to the preferred remedial approach of bioremediation of soils to remove petroleum hydrocarbons.

Table 5.2 Assessment of Factors Affecting Bioremediation / Landfarming Suitability

EPA 2014 Factor	Assessment
Contaminant types	Landfarming is nominated as a suitable treatment method for petroleum hydrocarbons in soils. Biodegradation is nominated as causing the reduction of petroleum hydrocarbons in landfarmed soils.
Contaminant concentrations	A screening criteria of 8 % total petroleum hydrocarbon concentrations (80 000 mg/kg) is a nominated screening for suitability of soils for landfarming. The maximum levels of petroleum hydrocarbons in soils on the site are anticipated to be well below this level, noting that the highest previously reported concentration is less than 8 000 mg/kg. If petroleum hydrocarbon impacted soils are malodorous, and where potentially offensive odours are detected, then air emissions management will be required for the soils.
Volume of contaminated soils	It is unlikely that large volumes of soils will require bioremediation. An estimated maximum quantity of 10 m^3 of impacted soils is anticipated which is insignificant when considered with the overall extent of the site.
Site area	The site area exceeds the 0.5-hectare threshold nominated in EPA (2014a).
Site topography	EPA (2014a) reports sites with steep gradients are not suitable for landfarming. The site is relatively level, as consistent with the general topography of the local area (See **Section** Error! Reference source not found.).
Local geology	The soils will be landfarmed within a purpose designed area within the extent of the site which shall be provided with surface cover to mitigate the potential for leaching of impact to soils underlying.
Hydrogeology	Groundwater underlying the site has been assessed and reflect urban background conditions.
Meteorology	Sydney has a humid climate that is mild with no dry season, constantly moist (year-round rainfall). Summers are hot and muggy with thunderstorms. Winters are mild. Seasonality is moderate. The temperatures vary throughout the year, with high summer temperatures, sometimes peaking above 40 °C and colder temperatures of in winter with typical night time lows of 6 °C. Rainfall occurs throughout the year with typically 90 to 100 rain days a year.
Distance to sensitive receptors	The site is located within a historical commercial / industrial area to the west and residential properties to the north and south.
Time	EPA (2014a) reports that timeframes associated with bioremediation will potentially vary. Provision has been made in the RAP for remedial timeframes of 6 weeks. Where bioremediation cannot be achieved in these timeframes, contingency actions are available to allow landfarming rates to be accelerated (i.e. increased turning of soils, addition of bioremediation additives etc).
Cost	EPA (2014a) notes that landfarming should not be considered a cheap remedial option and costs may become prohibitive to undertake landfarming properly. To this extent, it is considered that the cost to undertake landfarming is typically a function of the site area available to undertake the landfarming works and the resources required to control environmental emissions from the works. Landfarming / bioremediation will be a cost effective option for the site.

6. Remedial Plan

This RAP has been prepared with reference to the CLM Act in addition to the following guidelines and legislation.

6.1 Approvals, Licences and Notifications

State Environment Planning Policy (Resilience and Hazards) 2021

From review of the site location and proposed activities, the remediation works are classified as Category 2 Remediation Works (**Section 11.1**) as per the meaning provided in *State Environment Planning Policy (Resilience and Hazards) 2021* (SEPP-RH) and will not require specific development consent under the *Environmental Planning and Assessment Act 1997*.

Notification of remediation works will be required to be given to Council at least 30 days prior to commencement, and Council requires notification within 30 days from completion of remediation works, consistent with SEPP-RH requirements and Council's Contaminated Land Policy.

Asbestos Works

Asbestos impacted fill-based soils have been reported in JBS&G (2023b). The asbestos appears to have been identified in bonded form (i.e. asbestos containing material (ACM)) and friable form. To this extent, there is a requirement to notify SafeWork NSW for the friable asbestos removal works and a requirement to engage a Class A Licensed Asbestos Removalist for the removal of this material.

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

6.2 Site Establishment

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

- Locate and isolate all required utilities in the proximity of the works such that excavation works can safely proceed;
- Assess the potential impacts of the excavation works to neighbouring properties. It is recommended that a suitably qualified engineer be consulted prior to any excavation works, such that appropriate controls (if required) can be implemented;
- Assess need for traffic controls;
- Work area security fencing;
- Site signage and contact numbers; and
- Sediment fencing as appropriate to mitigate sediment laden runoff from the site.

6.3 Remedial Works

The remediation and validation works should be supervised by an appropriately qualified and experienced environmental consultant and undertaken by an appropriately licensed contractor.

It is noted that additional ACM is likely to be present on the ground surfaces / stockpiled soils at the site, given that long grass cover / vegetation precluded a thorough inspection of the ground surface during investigation activities. It is recommended that a thorough ground surface inspection be completed during future vegetation removal in order to avoid cross-contamination of asbestos / non-asbestos impacted soils in subsequent earthworks. Any materials identified to contain building and demolition wastes should be isolated for further investigation given the inherent higher risk of identifying asbestos within the materials.

6.3.1 Removal of Bonded ACM Impacted Ground Surfaces

The following remedial works shall be undertaken following clearing of surface vegetation and long grass to allow for access to surficial building/demolition material:

- The surface building/demolition material is to be inspected by the remedial contractor by walking transects no more than 1 m wide. The remedial contractor will remove any identified ACM for disposal off-site to an appropriately licenced waste facility. A minimum of two passes of picking and raking will be made with a 90^{o} direction change between each;
- Following the initial inspection process, the remedial contractor or their appointed contractor shall turn the material (0.1 m of surface building and demolition material) and complete a second walkover of the area to confirm there is no visible ACM; and
- Each area will be validated by JBS&G as per **Section 7**. Should validation fail the area will be subjected to an additional walk/pick by the remedial contractor or their appointed contractor and re-validated by JBS&G until such time as validation is achieved.

Following successful validation, the building and demolition material (inert waste considered not to pose an unacceptable aesthetic issue) can be excavated for onsite reuse and/or disposal. Should impact be identified beyond 100 mm (i.e. subsurface), the process outlined in **Section 6.3.2** may be implemented as a contingency and/or off-site disposal as per **Section 6.7**.

6.3.2 Removal of Bonded ACM Impacted Stockpiled or Fill Material and Anthropogenic Waste

The remedial contractor shall undertake the following to address bonded ACM and co-mingled anthropogenic material proposed to be retained at the site:

- Fill identified to contain bonded ACM (and anthropogenic material) is to be progressively excavated, during which gross waste material considered to pose an aesthetic issue will be physically removed by the remedial contractor;
- Direct load out of foreign materials that represent an aesthetic issue to an appropriately licensed waste facility;
- The excavation extent(s) will be documented by JBS&G and residual soil validated as per **Section 7.** Should validation fail, the failed base/wall will be excavated a further 0.2 m in the direction of the failure and the validation process repeated until validation is achieved;
- Material proposed for retention will be visually inspected by JBS&G to confirm the material is free from anthropogenic waste considered to pose an aesthetic issue;
- Temporary storage of ACM impacted soil (as required) will be conducted in accordance with **Section 9.2** (i.e. appropriately covered);
- The footprint(s) of all stored material (where placed on unsealed ground) are to be validated by JBS&G as per **Section 7.** Should validation fail, the failed base will be excavated a further

0.2 m in the direction of the failure and the validation process repeated until validation is achieved;

- The containment area is proposed to be within proposed Lots 2 and/or 3 (refer to **Figure 7** and **Appendix B**);
- The material proposed for retention is to be surveyed for material volume reconciliation. In addition, a survey of placed material, including the lateral and vertical extent of retention (the containment cell) will be required; and
- Materials will be tracked from source, through required remedial activities to final placement, noting remediation undertaken and validation outcome.

6.3.3 Removal of Impacted Fill – Heavy Metals and PAHs

Zinc and PAH within both stockpile and in-situ soil samples are not considered to pose an unacceptable risk under the proposed development scheme should the materials be retained in areas of low ecological significance (i.e. under future hardstand) or where imported soils are used for landscaped areas. However, if required, the impacted soils can be contained onsite with the asbestos impacted material within proposed Lots 2 and/or 3 (**Appendix B**). The work procedures will be the same as same as **Section 6.3.2**.

6.3.4 Removal of UPSS/USTs and Associated Impacted Soils

Residual UPSS/USTs/ASTs require decommissioning in accordance with relevant Australian Standards. In general, the following work procedures are to be followed:

- The location and extent of all residual UPSS/USTs/ASTs shall be confirmed prior to commencement of works. This shall include:
  - A detailed site inspection comprising review of all ground surfaces previously covered by vehicles/stored materials in historical assessments;
  - Ground penetrating radar (GPR) survey of the site to look for underground anomalies which may indicate the presence of UPSS/USTs not currently known to exist on site; and
  - Confirmation of the location/extent of known UPSS/USTs as shown on Error! Reference s ource not found.**4D**.
- The USTs should be emptied of all dangerous goods and made gas-free. Any contents of the tank will be disposed off-site in accordance with EPA (2014b);
- Where possible, all associated piping should be disconnected and made safe so that no flammable or combustible liquid remain;
- Hardstand overlying areas suspected or known to contain UPSS/USTs shall be broken out and removed. Inspection and/or test pitting of soil shall be undertaken in areas with known or suspected UPSS/USTs until the infrastructure is positively identified or confirmed to be absent;
- UPSS/USTs will be excavated for off-site disposal in accordance with EPA (2014b); and
- It is anticipated that soil impacts will be present proximal to the UPSS/USTs. Impacted soils shall be progressively excavated under the supervision of the Environmental Consultant until all grossly impacted soils have been removed from the excavation to the practical extent. The resulting excavation will require validation in accordance with **Section 7**.

The constraints on remediation as described in **Section 6.3.7** shall apply.

6.3.5 Excavation of Hydrocarbon-Stained Soils and Associated Impacts

The localised instance of TRH impact and/or staining at surface locations SS6 and SB21, in the western portion of the site requires to be excavated and remediated onsite. The following general work methodology shall be followed:

- The extent of surficial staining shall be confirmed by visual inspection to define the lateral extent;
- Fill-based soil shall be excavated in 0.2 m layers;
- Upon removal of each consecutive layer, the Environmental Consultant shall observe exposed soils for potential localised gross hydrocarbon impact indicators. Where gross hydrocarbon impacted soils are identified, the excavation shall proceed over the area of impacted soils, with all liberated soils progressively stockpiled;
- Any grossly hydrocarbon impacted soils shall be subject to bioremediation (See **Section 6.3.6**); and
- The resulting excavation will require validation in accordance with **Section 7**.

The constraints on remediation as described in **Section 6.3.7** shall apply.

6.3.6 Bioremediation

Impacted soils will be spread out in a designated landfarming area and will be subject to bioremediation prior to an assessment of whether the soils are suitable for re-use on site. It is anticipated that less than 10 m^3 will be impacted by petroleum hydrocarbon and will be require bioremediation.

Soils to be bioremediated / landfarmed will be spread, with the maximum height not exceeding 0.5 m. The layout of landfarm rows shall be determined by the Environmental Consultant and Remedial Contractor based on screening during excavation. Controls to prevent sediment run-off will be placed around the landfarm.

It is proposed that the impacted soils be turned on a weekly frequency for a period of four to six weeks. JBS&G propose to inspect the material on a weekly basis, and where found to be suitable by field analysis, undertake validation sampling and analysis to demonstrate the suitability of the material to be used as backfill at the site.

Suitable bioremediated material will be used as backfill on-site. Material considered not suitable for reuse on-site (i.e. materials unable to be bioremediated) will be classified in accordance with EPA (2014b) prior to off-site disposal.

6.3.7 Constraints on Excavation and Stockpiling

The practicable limits of excavation include the consideration of the following:

- Physical limitations of available equipment;
- Excavation of saturated materials shall only occur where aesthetic indicators of petroleum hydrocarbon impact are present. This may include hydrocarbons odours or otherwise sheens present in seepage water;
- Geotechnical constraints associated with excavation safety and excavation stabilisation requirements (e.g. benching) and / or potential effects on nearby infrastructure; and
- Structural constraints should the excavation extend to a close proximity to roadways, footpaths, building and underground conduits.

Excavated material will be segregated and stockpiled based on an initial screening of levels of contamination. The excavated material will be temporarily stockpiled on plastic sheeting to provide a separation layer between potentially contaminated soils and surface soils.

6.3.8 Onsite Containment

The preferred remedial option for the asbestos and potentially heavy metal and PAH (if required) impacted fill based soils on the site is management on-site by long term containment. The following procedures as documented following will require to be implemented to ensure that environmental/health risks associated with the retention of these soils are appropriately controlled.

6.3.8.1 Overview

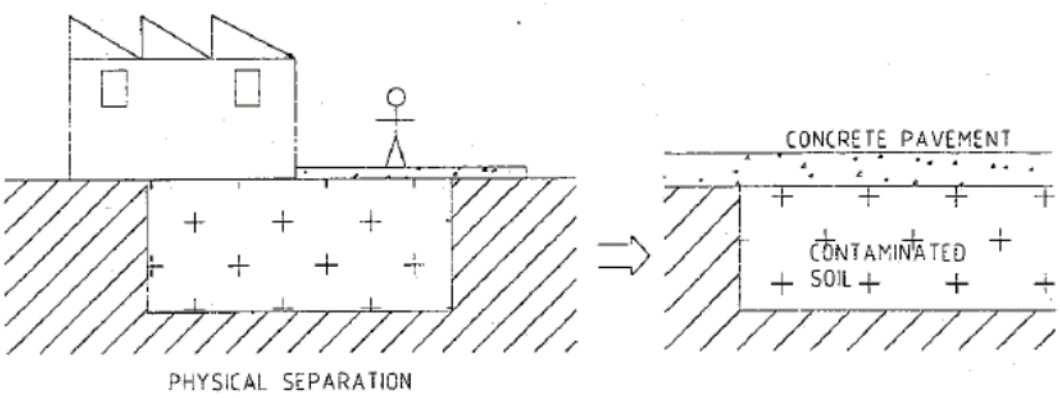
Impacted fill will be managed to the extent achievable via containment and the implementation of permanent physical separation which eliminates the inhalation exposure pathway for airborne asbestos fibres.

The minimum requirements for the physical separation to be adopted in remediation of the site include:

- A minimum soil cover thickness of 0.5 m in landscaped or mass planting/shallow landscaped areas and 1.5 m in tree pit zones which is underlain by a visual “marker layer” in unpaved areas, i.e., planter boxes in landscaped areas etc.; or
- Permanent concrete floor/ground slabs as underlain by a visual “marker layer”, i.e., underlying buildings, roads, pathways; or
- Top (concrete) of pile foundations (no marker layer required for below pile foundations).

A conceptual sketch, sourced from ANZECC 1999[10], is shown following:

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



PHYSICAL SEPARATION

The marker layer shall consist of a bright orange coloured 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 long term Environmental Management Plan (LTEMP) documents in addition to surveyed plans showing the extent of the capped area.

6.3.8.2 Specific Capping Arrangements

The following capping procedures will be applied to each of the potential exposure scenarios across the site, prior to completion of construction works:

- Beneath permanent concrete structures installation of a marker layer over contaminated fill material and permanent concrete slab as the physical barrier.
- Permanent hardstand structures (i.e., concrete slabs, pile caps or asphaltic concrete or similar, footpaths, but not bricks or pavers) – installation of a marker layer overlying potentially contaminated material followed by sub-grade material validated as environmentally suitable materials for human exposure and then the permanent structure (e.g., exterior concrete footpaths, asphaltic roads, etc.).
- Mass planting / shallow landscaping areas – installation of the marker layer at a minimum depth of 500 mm below the final finished site levels, with a capping layer consisting of environmentally suitable materials for potential human and/or ecological exposure.
- New tree pit zones / deep landscaping zones – installation of the marker layer at a minimum depth of 1.5 m below the final finished site levels, with a capping layer consisting of environmentally suitable materials for potential human and/or ecological exposure, noting that the maker layer should extend the depth required for installation of the new tree's existing root ball or otherwise consistent with the anticipated root zone of the deep landscaping area.
- Within underground services trenches / services – service infrastructure will require remediation to 150 mm below the depth of services, with a marker layer and capping layer installed consisting of environmentally suitable materials for potential human and/or ecological exposure.

Material above the marker layer extending to the final finished ground level will be required to be an environmentally suitable material for human and/or ecological exposure (as appropriate) as discussed further in **Section** Error! Reference source not found..

Validation of the interim and permanent capping arrangements will be required as outlined in **Section 7,** including inspections by the Environmental Consultant, a survey plan prepared by a registered surveyor showing the level and lateral extent of the impacted soils, marker layer, and capping in relation to the site boundaries.

6.3.9 Inspection of former Telstra Exchange

The former Telstra Exchange as present within a small portion of the site was assessed as having a low potential for contamination. Following demolition works this shall be confirmed by site inspection. In the case that a potential for contamination is identified, then this shall be investigation by adopting the Unexpected Finds Protocol (**Section 8**) and integration of any contamination with the existing extensive provisions for remediation in the remainder of this RAP.

6.4 Material Importation

Based on the scope of remedial works described herein, it is anticipated that if materials are required to be imported to site, it will generally be as a result of construction requirements or otherwise to ensure appropriate growing media are established within the planter boxes / garden 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. 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 (1995).

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 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 tracking records in addition to the import assessment report are required to be included in the final validation report for the site.

6.5 Surveying

A qualified surveyor will conduct surveying of excavations, stockpiles and remedial extent such that the remedial/validation objectives can be achieved.

6.6 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 development. Details of the validation program are provided in **Section 7**.

6.7 Off-site Disposal of Material

Any contaminated soils or other waste generated during remediation to be disposed off-site shall be classified in accordance with EPA (2014b) *Waste Classification Guidelines* or an appropriate exemption as created under the *Protection of the Environment Operations (Waste) Regulation 2014*.

Should natural soils/bedrock require off-site disposal then these shall also be classified in accordance with EPA (2014b) *Waste Classification Guidelines* also.

Waste certificates will be prepared for each stockpile and/or material type that is to be disposed.

The waste facility must be lawfully licensed to receive the material sent to it for disposal.

The remedial contractor must be aware of and conduct all waste disposal in accordance with all relevant regulations. All waste tracking documentation including disposal dockets must be maintained by the remedial contractor and must be provided to JBS&G/the client for inclusion in the validation report.

6.8 Site Dis-establishment

On completion of the remediation works all plant/equipment and safety/environmental controls should be removed from the site. Details are provided in **Section 9**.

6.9 Contingency Plan

Given the available site history information, consideration has been given to the potential for additional small scale issues that may arise during works (from a contamination viewpoint). Should further impacted material (i.e. not previously identified in historical investigations) be identified as part of an unexpected find during construction works, the remedial options screening matrix in Error! Reference source not found. will be required to be reviewed. Notwithstanding, due to the site h istory and relatively shallow depth of fill it is anticipated that any impacts will be relatively isolated and could be appropriately managed through either on-site in-situ management (i.e. option 3) or controlled excavation and off-site disposal. This includes any additional contamination as may be identified on the former Telstra Exchange site.

7. Validation Plan

7.1 General

Data will be required to be collected during remediation/management and construction works to assess the effectiveness of the implemented management actions and document the final condition of the site at the completion of all works. Such information will allow conclusions to be drawn on the end suitability of the site for the proposed use. The general principles to be implemented with regard to the validation assessment are discussed in accordance with EPA (2017) requirements in the following sections.

It is anticipated that the validation assessment will be required to address the following broad issues:

- Confirm the site conditions are consistent with those identified during previous site investigation activities as documented herein;
- Validation that source excavation/removal works have successfully separated historical infrastructure and associated impacted soils to the practical extent;
- Validation that soil remediation works has removed petroleum hydrocarbon contaminated to soils from the site;
- Validation that soil remediation works has removed heavy metal and PAH contaminated soils from the site (if required);
- Validation that the final site surface does not contain visually identifiable bonded asbestos impacts or other unacceptable aesthetic issues; and
- Confirmation that marker layer / site pavement is in place to retain underlying asbestos contaminated soils.

7.2 Data Quality Objectives

Data quality objectives (DQOs) have been developed for the validation assessment, as discussed in the following sections.

7.2.1 State the Problem

JBS&G (2023b) has identified the presence of contaminated site media and residual disused petroleum infrastructure at the site. The infrastructure and associated contaminated media require to be remediated to make the site suitable for the proposed development.

A set of environmental data are required to verify that remediation works as documented in **Section** Error! Reference source not found. have been implemented in a manner which causes potential risks a ssociated with contaminated site media to reduce to low and acceptable levels.

7.2.2 Identify the Decision

The following decisions are required to be made during the validation works:

- Is any disused infrastructure remaining at the site which represents a potential contamination risk?
- Are there any unacceptable risks to future human site receptors, associated with TRH, heavy metals, PAH or asbestos impacts in site media, following the remediation of soils?
- Are impacted fill materials appropriately contained to control potential future exposures of human and ecological receptors to impacted material?
- Have all aesthetic issues been addressed?
- Has all material imported to site to achieve development objectives been demonstrated as suitable for use?
- Was 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 subject to implementation of long-term management of residual impacts?

7.2.3 Identify Inputs to the Decision

The inputs to the decisions are:

- Previous investigation results as discussed in **Section** Error! Reference source not found.;
- The proposed development 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 asbestos impacts or other indicators of potential contamination;
- Environmental data as collected from the validation of remedial excavations (if required as part of an unexpected find);
- Material characterisation data obtained during assessment of 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;
- Records of installation of marker layers and capping by visual observation, photographs and supported by formal site survey;
- 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).

7.2.4 Define the Study Boundaries

The study boundaries are defined as the lateral site extent (**Section** Error! Reference source not f ound.) and the vertical extent of remediation works (not anticipated to exceed 2.5 m bgl).

Ultimately the study boundaries will comprise the lateral and vertical extent of the site successfully validated in accordance with the requirements of this plan. The temporal limits of the assessment will comprise the duration of the remedial works and validation program.

7.2.5 Develop a Decision Rule

The decision rules adopted to answer the decisions identified in **Section 7.2.2** are summarised in **Table 7.1**.

Table 7.1 Summary of Decision Rules

Decision Required to be Made	Decision Rule
1. Is any disused infrastructure remaining at the site which represents a potential contamination risk?	Where: Inspection of the site surface following vacation of all stored materials/vehicles indicates that all UPSS/USTs/ASTs and operational infrastructure has been identified; GPR survey of the site does not indicate that any additional UPSS/USTs are present on the site; and All known UPSS/USTs/ASTs and operational infrastructure has been observed to be removed from the site. Then the answer is Yes. Otherwise the answer is No.
2. Are there any unacceptable risks to future human site receptors, associated with TRH, heavy metals, PAH or asbestos impacts in site media, following the remediation of soils?	Soil validation data shall be collected of the walls and base of excavations and of the bioremediated soils. If the soils validation results meet the adopted validation criteria then the answer is Yes. If the soil validation results fail the adopted validation criteria then the answer is No.
3. Are impacted fill materials appropriately contained to control potential future exposures of human and ecological receptors to impacted material?	At the completion of the remediation and site development works a marker layer and capping consisting of pavement or otherwise an minimum depth of 0.5 m non-impacted soils shall be present across the extent of the site where fill materials are still in place. If site observations (inspections and photographs) and site surveys are available to demonstrate these works have occurred then the answer is Yes. If there is uncertainty as to whether these measures have been installed across the extent of the site then the answer is No.
4. Have all aesthetic issues been addressed?	If the final site surface is free of asbestos impacts and absent of significant petroleum odours or otherwise visual indicators of petroleum hydrocarbon impact (i.e. sheens), the answer to the decision will be Yes. Otherwise, the answer to the decision will be No.
5. Was excess excavated soil classified and disposed of offsite to a facility licensed to accept the classified waste?	Soil analytical data will be compared against EPA (2014b) criteria. Statistical analysis (comprising a review of 95% UCL of the mean, standard deviation and maximum values of dataset) of the data in accordance with relevant guidance documents will be undertaken, where appropriate, to facilitate the decisions (as detailed above). Documentation from the operation receiving the material including the dates, tonnage and classification of the accepted material will be required to facilitate the decision. If the statistical 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.

Decision Required to be Made	Decision Rule
6. Where material is imported to site for development purposes is it considered environmentally suitability 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 development activities.
7. Have remedial and validation works met the requirements of the RAP?	If the answer to Question 1 Yes and/or an answer to Questions 2-5 No, the answer to the decision is No. Further assessment is required to establish the nature and extent of additional remediation/management as may be required. If the RAP requirements were addressed, and there are no outstanding issues, the answer to the decision is Yes.
8. Is the site suitable for the proposed land uses subject to implementation of long-term management of residual impacts?	If the answer to Questions 6 and 7 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.

7.2.6 Specify the Limits on 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 indicators of data quality (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 and completeness (PARCC 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.

Table 7.2 Summary of Data Quality Indicators

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind duplicates (intra laboratory)	1 / 20 primary samples	1-10x LOR – no limit; 10x-30x LOR - <50 % relative percent difference (RPD)[1] >30x LOR - <30 % RPD
Blind duplicates (inter laboratory)	1 / 20 primary samples	
Laboratory duplicates	1 / 20 primary samples	
Accuracy		
Surrogate spikes	All organic samples	70-130 %
Laboratory control samples	1 per lab batch	70-130 %
Matrix spikes	1 per lab batch	70-130 %
Representativeness		
Sampling appropriate for media and analytes	All samples	-[2]
Samples extracted within holding times.	All samples	TRHs, VOCs and SVOCs – 14 days Asbestos – no limit
Trip spike (BTEX only)	1 per sampling event	70-130% recovery
Rinsate blank	1 per sampling event	<LOR
Method blank	1 per lab batch	<LOR
Comparability		
Standard operating procedures for sample collection & handling	All Samples	All samples
Standard analytical methods used for all analyses	All Samples	NATA accredited methods
Consistent field conditions, sampling staff and laboratory analysis	All Samples	All samples[2]
Limits of reporting appropriate and consistent	All Samples	All samples[2]
Completeness		
Sample description and COCs completed and appropriate	All Samples	All samples[2]
Appropriate documentation	All Samples	All samples[2]
Satisfactory frequency and result for QC samples	All QA/QC samples	95% compliance
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All samples	LOR ≤ site assessment criteria

[1] If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgment 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.

[2] A qualitative assessment of compliance with standard procedures and appropriate sample collection methods will be completed during the DQI compliance assessment.

7.3 Validation Inspections and Sampling

The validation inspections, sampling and analysis required for remediation areas are summarised in **Table 7.3** and detailed in the following sections.

Table 7.3 Validation Inspection and Sampling Program

Item	RAP Sampling Density		Analytical Suite
ACM Ground Surface			
Ground surface (following inspection/removal of ACM fragments)	Visual inspection of each area by JBS&G by walking transects to inspect building rubble for ACM		Visual Inspection by JBS&G
Anthropogenic material on the ground surface and within the soil profile (generally co-mingled with ACM)	Remove materials that present a potential physical hazard such as sheet metal, car parts, tyres.		Visual Inspection by JBS&G (where anthropogenic material may be retained, they are to be placed in an area that is either be paved or covered with 0.5 m or more of environmentally suitable material. Services are required to be backfilled with environmentally suitable material)
Source Removal Excavation Validation			
	Excavation Floors	Excavation Walls	
AF/FA remedial excavation	Visual, and 1 per 25 m^2 (5 m grid) or minimum 1x sample per base	1 per 5 m lineal (from each distinct horizon/material type/1 m vertical soil profile). Minimum 1 x sample per wall. If excavation is shallow, i.e. wall height ≤ 0.2 m, then wall samples are not required.	Asbestos (NEPM protocol: 500 mL)
Exposed ground surface (following excavation, stockpiling (where required) of ACM impacted fill)	Visual, and 1 per 100 m^2 (10 m grid) or minimum 1x sample per base	1 per 10 m lineal (from each distinct horizon/material type/1 m vertical soil profile). Minimum 1 x sample per wall. If excavation is shallow, i.e. wall height ≤ 0.2 m, then wall samples are not required.	Visual Inspection by JBS&G + Asbestos (NEPM protocol: 500 mL)
Excavations formed by the removal of contaminated soils (heavy metal and PAH impacts).	1 sample per 25 m^2, with a minimum of 1 sample per excavation	5 m of excavation wall, with a minimum of 1 sample per wall	Heavy metals PAHs
Excavation of TRH hotspots and stained/odorous soils SS6 and SB21	1 sample per 25 m^2, with a minimum of 1 sample per excavation	5 m of excavation wall, with a minimum of 1 sample per wall	Visual inspection/field screening by JBS&G + TRH
Excavations formed by the removal of UST and associated impacted soils	1 / 100 m^2 (10 m grid) Minimum 2 per base	1 sample / 10 linear metres, minimum of 1 per excavation face; and 1 sample / per strata type	TRH / BTEX / PAHs / Lead
Fuel feed lines (if encountered)	1 sample / 5 m line	N/A	TRH / BTEX / PAHs / Lead

Item	RAP Sampling Density		Analytical Suite
Bowsers	1 sample / bowser	N/A	TRH / BTEX / PAHs / Lead
Fill materials associated with UST	1 sample / 25 m^3 up to 100 m^3. Minimum of three samples per stockpile. Reduced sampling density for volumes > 100 m^3.		TRH / BTEX / PAHs / Lead (if to remain onsite)
ASTs	1 / 100 m^2 (10 m grid) Minimum 2 per base	N/A	TRH / BTEX / PAHs / Lead
Petroleum Hydrocarbon Impacted Soils Remediation			
Bioremediated Soils / Landfarm pile(s)	1 sample per 25 m^3, minimum 3 samples per pile.		TRH BTEXN
Materials Importation			
Imported VENM	Minimum of 3 samples per source site / material type to 500 m^3 then 1 sample per 500 m^3 thereafter		TRH/BTEX PAH Heavy Metals OCP/PCBs Asbestos (500 ml)
Quarry VENM Materials (e.g. blue metal, sandstone, shale)	Confirmation that the material is quarried rock (VENM) prior to importation, and visual confirmation.		Site Inspection required.
Material subject to a NSW EPA Resource Recovery Order/Exemption	Confirmation by the supplier that the material meets the terms of the order. Then environmental consultant sampling at a minimum of 3 samples per source site / material type to 500 m^3 then 1 sample per 500 m^3 thereafter, prior to importation		TRH/BTEX PAH Heavy Metals OCP/PCBs Asbestos (500 ml)
Export of Materials			
Surplus waste materials for off-site disposal are to be classified in accordance with EPA (2014b).	Stockpiled materials for off-site disposal require a minimum of 5 samples (up to 75 m^3) or a sample density of 1/25 m^3 to 200 m^3 (whichever is greater) Decreased sampling frequency to be justified on basis of stockpile homogeneity and risk of contaminants present.		Heavy metals TRH/BTEX PAHs OCP/PCBs Asbestos (presence/absence: 40 g) TCLP (Heavy metals and PAHs) at the Environmental Consultant's discretion.
Export of Materials			
	Excavation Floors	Excavation Walls	
Unexpected Find	1 per 25 m^2	1 per 5 m lineal	As appropriate, depending on the location and characteristics of the unexpected find

The nominated sampling densities and analytical program have considered sample density guidance provided in EPA made and endorsed guidelines.

In addition to the nominated sampling densities, an inspection shall be further completed of the former Telstra Exchange as following site demolition to confirm no indicators of contamination.

7.4 Soil Sampling Methodology

7.4.1 Validation of Excavation(s)

Samples will need to be collected by an appropriately trained and experienced environmental scientist/engineer using a hand trowel 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 7.4.6**.

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.

7.4.2 Removal of Residual UPSS/USTs and Operational Infrastructure

Following removal of residual operational infrastructure, the Environmental Consultant shall:

- Inspect underlying surfaces and/or resultant excavation for indicators of additional connecting services or residual infrastructure (i.e. piping, concrete conduits, etc.);
- Where no indicators of residual infrastructure are identified, the Environmental Consultant shall photograph the resultant surfaces/excavation for inclusion in the validation report;
- The Environmental Consultant shall then direct the Remedial Contractor to undertake excavation/removal of residual impacted soils (if present); and
- Upon disposal of infrastructure, the Remedial Contractor shall provide disposal dockets to the Environmental Consultant for inclusion in the validation report.

7.4.3 Validation of Bioremediated Soils

The completion of bioremediation of petroleum hydrocarbon impacted soils within the landfarm requires to be confirmed by validation sampling. Soils within the landfarm will be spread at a typical thickness of 0.5 m. Validation samples shall be collected from an excavation to a depth of 0.25 m below the landfarm surface and direct transfer of the soils to a laboratory supplied sample jar. Samples shall be confirmed to be free of aesthetic indicators of impact prior to analysis.

Samples shall be collected at a minimum frequency of 3 samples per 25 m^3. Landfarmed soils shall be analysed for concentrations of TRHs and BTEXN.

If the concentration of COPCs are identified in any of the landfarm pile samples exceeding criteria, then consideration will be given to continuing the process of landfarming, or alternatively disposing of soils from the site. Where impact exceeding criteria is not identified by the laboratory, the subject landfarm piles will be deemed to have been successfully remediated and validated, and will be considered suitable for reinstatement below the cap.

7.4.4 Validation of Retention of Impacted Soils On-Site

The preferred remedial method for the widespread asbestos affected soils is long term retention on the site. This shall be undertaken as per a long-term containment strategy.

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

With this proposed waste minimisation strategy, it is likely that impacted fill soils will be contained within proposed Lots 2 and/or 3 (**Appendix B**). This 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 and ecological risks will be dependent on three aspects of site validation:

- Material tracking;
- Consideration of distribution of site impacts by comparison to previous health risk assessments undertaken for the site;
- Installation of a marker layer; and
- Installation of a capping layer.

The validation of each component is discussed further following.

Material Tracking

The movement of all impacted materials (subject to long term containment) on the site is required to be subject to a Material Tracking Plan (MTP). The MTP 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 (asbestos, 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).

Marker Layer

Visual inspection will be undertaken by the Environmental Consultant to verify the installation of the marker layer across the complete extent of the site where fill soils are present in the sub-surface. Photographic records and a survey prepared by the Project Surveyor of the marker layer installation, including vertical and lateral extents will be retained for inclusion in the Validation Report.

Capping Layer

Material to be used as a capping layer (other than concrete pavement) must be validated by the Environmental Consultant to be environmentally suitable, consisting of VENM, ENM, suitable on-site materials (i.e. materials from another portion of the development site that are non-impacted) 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 thicknesses specified for each capping scenario as detailed in **Section 6.3.88**. 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 prepared by the Contractor will be retained for inclusion in the Validation Report. This shall also make reference to the requirements for landscaping soils and zones as consistent with the final development plans (to be prepared).

7.4.5 Ground Surface Validation (Aesthetics)

Prior to the completion of remedial works and following placement of the marker layer, the ground surface of the site shall be thoroughly inspected by the environmental consultant to confirm the absence of visual ACM which may have been incidentally deposited during works.

Should any observable ACM be identified, the area should be emu-picked prior to re-inspection by the environmental consultant.

7.4.6 Stockpile Sampling

For stockpile sampling, material will be obtained from a minimum depth of 0.3 m below the surface of the stockpile at the time of sampling. 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.

7.4.7 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 10L) will be collected at each sampling location. Collected bulk sample will be sieved in the field (≤7mm 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 10L soil sample, providing a w/w %.

A separate 500mL 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 permissible land use, noting that all visually asbestos impacted fill will be excavated and relocated (retained) on site to manage WHS considerations during development.

7.4.8 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.

7.4.9 Soil Duplicate and Triplicate Sample Preparation 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.

7.4.10 Soil 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;
- Pressure spray with Decon 90 detergent and potable water mix;
- Pressure spray rinse with potable water; and
- Air drying.

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.

7.4.11 Laboratory Analyses

Eurofins MGT Pty Ltd (Eurofins) will function as the primary laboratory for the required analyses. The secondary laboratory to be contracted for the works will be Envirolab Services Pty Ltd (Envirolab). All laboratories are National Association of Testing Authorities (NATA) registered for the relevant analyses. In addition, the laboratories are required to meet JBS&G's internal QA/QC requirements.

7.5 Validation Criteria

Based on the proposed development details and in accordance with the decision process for assessment of urban redevelopment sites (EPA 2017), validation criteria sourced from the publications have been adopted:

- NEPC (2013) Health-based Investigation Levels (HILs) for commercial/industrial land use (HIL- D);
- NEPC (2013) Health Screening Levels (HSLs) for petroleum hydrocarbons considering potential for vapour intrusion, for commercial/industrial land use (HSL D) land use at 0.0-1.0 m depth;
- CRC Care (2011) HSLs: – Commercial/Industrial for direct contact/intrusive maintenance worker (HSL D);
- NEPC (2013) HSLs for asbestos in soil for commercial/industrial land use (HSL D);
- NEPC (2013) site specific ecological investigation levels (EILs) derived through the added contaminant limits for commercial/industrial land use;
- NEPC (2013) Management Limits for TRH, for commercial/industrial land use;

- NEPC (2013) Ecological Screening Levels (ESLs) for TRH fractions, BTEX and benzo(a)pyrene in for commercial/industrial land use; and
- Where there are no NSW EPA endorsed thresholds the laboratory LOR has been adopted as an initial screening value for the purposes of this validation assessment.

It is noted validation for the known asbestos impact will attempt to achieve no visible ACM and friable asbestos is required to be below NEPC (2013) criterion such that the area(s) can be validated to not constitute an asbestos impacted environment under WHS Regulations (with consideration to the development activities which will include bulk excavation and re-contouring of the site to establish required construction levels).

Refence will be made to NEPC (2013) under a commercial/industrial setting to establish what constitutes an aesthetics issue.

7.5.1 Application of Soil Assessment Criteria

For soils to be considered as meeting the health/ecological based assessment criteria (i.e., not posing an unacceptable risk), the following criteria will be adopted:

Either:

- All contaminant concentrations were less than the adopted site assessment criteria,

Or:

- The upper 95% confidence limit on the average concentration for each analyte (calculated for samples collected from consistent soil horizons, stratigraphy or material types) was below the adopted criterion;
- No single analyte concentration exceeded 250% of the adopted criterion; and
- The standard deviation of the results was less than 50% of the criterion.

Analytical results for asbestos in soils will be directly compared to the site criteria. No statistical assessment for asbestos in soils will be undertaken.

In addition to the numerical criteria, the following visual observations will also supplement the assessment process:

- No visible asbestos containing material within remedial excavations, in addition to laboratory analysis results.

7.5.2 Off-site Disposal

Where contaminated fill/soil is not suitable for on-site retention or is surplus to site requirements, materials are proposed to be remediated by off-site removal and disposal. Materials shall be classified in accordance with EPA (2014) *Waste Classification Guidelines* or an appropriate resource recovery order/exemption (RRO/RRE) as created under the POEO Waste Regulation.

Material will require to be removed to a facility lawfully able to receive it.

7.5.3 Transport of Asbestos Impacted Materials

As further required to be considered in the requirements of material tracking, transport of materials affected by asbestos will require to be further cognisant of the requirements of *Work Health and Safety Act (2011)* and *Work Health and Safety Regulation (2017)*, *How to Manage and Control Asbestos in the Workplace: Code of Practice*, 2020, Safe Work Australia (SWA 2020b), *Managing Asbestos in or on Soil*, 2014, WorkCover and the EPA (2014b).

Excavation and removal of friable asbestos contaminated soils are required to be conducted by a Class A licensed contractor. Excavation, onsite remediation and offsite removal of non-friable ACM only contaminated soils are to be conducted by a Class B Licenced Asbestos Removal Contractor.

Before starting any affected works, the appointed contractor is required to notify SafeWork NSW at least five days before commencement.

7.5.4 Imported Materials

In accordance with current EPA policy, only material that does not represent an environmental or human health risk at the receiving site may be considered for resource recovery. Imported materials will only be accepted to the site if they meet the restrictions placed on these materials, as described below:

- Natural quarried products such as blue metal gravel, shale, sandstone, etc, that are not considered to meet the POEO Act definition of a waste;
- VENM as defined in as defined in EPA (2014) *Waste Classification Guidelines* and the POEO Act Schedule 1;
- Excavated Natural Material (ENM) as defined in the ENM RRO/RRE; or
- Recycle materials as per relevant RRO/RRE.

All material imported onto site are required to be accompanied by appropriate documentation that has been verified by the appointed site contamination (environmental) consultant.

Sampling of materials as per relevant RRO/RRE (ENM or recycled products) is required to be undertaken and appropriate documentation provided by the source facility/site prior to import. In addition, where materials are proposed for beneficial reuse under a relevant RRO/RRE (i.e. imported to the site), fill material will need to be further assessed by JBS&G for land use suitability (refer to **Section 7.3**) including review of source site documentation and inspection and (where required) sampling at the source site prior to import.

7.6 Validation Report

The validation report shall be prepared by the environmental consultant written in general accordance with EPA reporting guidelines (EPA 2020). The validation report will be submitted to the client at the completion of remedial works at the site. Where remediation works are staged, validation reporting may also be staged with a complete validation report for each stage or interim-validation report for each stage with overall complete validation report on completion of all stages.

The validation report should 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;
- Information demonstrating compliance with appropriate regulations and guidelines including UPSS infrastructure destruction/disposal documentation;
- 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; and
- Clear statement of the suitability of the site with respect to permissible land uses with specific reference to the LTEMP to be applied for the ongoing management of the extent of impacted materials as characterised at the completion of the construction works.

It is understood the site may be signed off in a staged manner.

7.6.1 Long Term Environmental Management Plan

With the proposed on-site containment of impacted soils, a LTEMP will be required. The LTEMP will document provisions for the of long-term management of the marker and capping layers integrity and detail the required controls for future works below the marker layer.

The LTEMP will be made legally enforceable through inclusion in the Asbestos Register as prepared for the site and required as per the *Work Health and Safety Regulation 2017*. Asbestos is a known contaminant that will be present in the impacted soils. Other potential constituents that may also present can also be identified in the same LTEMP document.

8. Unexpected Finds

The possibility exists for hazards to be present at the site other than those identified and expected based on previous investigations.

Environmental sampling is based on chemical analytes identified as a potential concern during a documented process of reviewing historical site activities. However, ground conditions between sampling points may vary, and further hazards may arise from unexpected sources and/or in unexpected locations. The nature of any additional hazards which may be present at the site are generally detectable through visual or olfactory means, for example:

- Areas of previously unidentified ACM on the ground surface or within fill material;
- Uncontrolled filling, such as in eroded drainage lines;
- Drums or underground tanks;
- Chemical bottles; and
- Odorous or unusual coloured soils.

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

An enlarged version of an unexpected finds protocol, suitable for use on site, should be posted in the Site Office and referred to during the Site Specific Induction by the Principal Contractor.

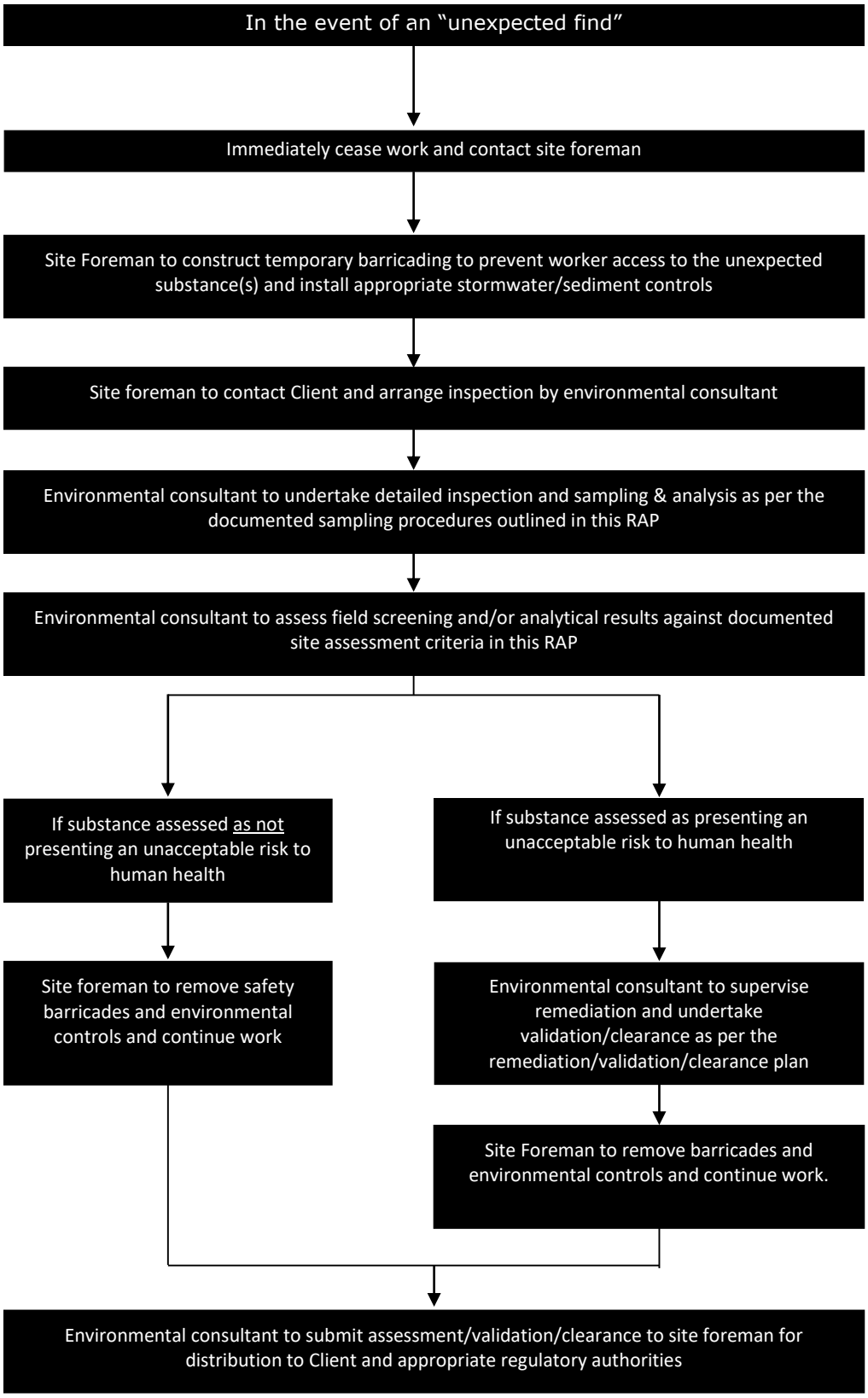
The sampling strategy for each 'unexpected find' shall be designed by a suitably qualified environmental consultant, in accordance with guidelines made or endorsed by EPA. The strategy will, however, be aimed at determining the nature of the substance – that is, is it hazardous and, if so, is it at concentrations which pose an unacceptable risk to human health or the environment.

The sampling frequency of the identified substance / materials shall meet the requirements the NSW EPA Sampling Design Guidelines (1995).

The assessment criteria shall be determined by the Environmental Consultant, with the subject material to at least meet the criteria nominated in **Section 7.5**Error! Reference source not found., a nd additional criteria (as necessary) obtained from published national guidance documents.

The UFP shall be specifically implemented in response to the identification of any potential indicators of contamination within the former Telstra Exchange site as observed following demolition of site structures.

Flowchart 8.1: Unexpected Finds Protocol



9. Site Management Plan

This section contains procedures and requirements that are to be implemented as a minimum requirement during the remedial works at the site.

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
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

It is understood that the hours of operation for remedial works will be conducted in accordance with the recommended site hours suggested by the EPA[11], however, works hours will be subject to requirements of any development approval conditions provided by Council.

Typical hours of operation for remedial works are:

- Monday to Friday: 7am to 6pm.
- Saturday: 8 am to 1 pm.
- Sunday 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)[12] 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 remedial contractor.

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

[11] *Interim Construction Noise Guideline.* Department of Environment & Climate Change NSW. DECC 2009/265. July 2009.
[12] *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.

9.3.1 Stockpiles / Landfarms

All materials stockpiled onsite (inclusive of the Landfarm) will be managed by the remedial contractor. Unique numbers will be provided for each stockpile, the source of the stockpile, its volume, material characterisation and its location onsite (via GPS) recorded.

The following procedures will be implemented by the remedial contractor:

- No stockpiles of soil or other materials shall be placed on footpaths or nature strips unless prior Council approval has been obtained;
- All stockpiles of soil or other materials shall be placed away from drainage lines gutters or stormwater pits or inlets;
- All stockpiles of soil or other materials likely to generate dust or odours shall be covered (where practical); and
- All stockpiles of contaminated soil shall be placed on plastic sheeting to limit cross contamination of the underlying soils and stored in a secure area.

9.3.2 Site Access

During remediation works, temporary fencing will be installed which will restrict access to remedial areas on the site. Only authorised persons will be permitted to enter the remedial areas.

Vehicle access to the site shall be stabilised to prevent the tracking of materials from 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 handled as per the classification/reuse/disposal requirements outlined in this RAP.

9.3.3 Excavation Pump-out

Any excavation pump-out water shall be sampled by the environmental consultant for analysis for total suspended solid concentrations, turbidity, pH and the identified contaminants of concern prior to release to stormwater with appropriate documentation indicating that the discharged water is compliant with the ANZG (2018[13]) default guideline values (DGVs) for the 95 % Protection of Freshwater Ecosystems. If not, appropriate waste disposal practices with a suitably licensed and experienced waste contractor.

Excavation pump out is not anticipated with the general remediation works given the general remedial plan of minimising ground disturbance and groundwater being undisturbed. Pump out following accumulation of surface water is the most likely scenario for water disposal.

[13] *Australian and New Zealand Guidelines for Fresh an Marine Water Quality*, August 2018, Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia (ANZG 2018)

9.4 Noise

Remediation work shall not give rise to 'offensive noise' as defined in the POEO Act *1997*. All equipment and machinery associated with the remediation work shall be operated by the Contractor in accordance with *the POEO Act 1997* and the *Noise Control Regulations 2000*.

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

Louder equipment shall be located away from noise sensitive areas. Works shall be staged as required to avoid concurrent operation of multiple pieces of noisy equipment. Works outside of normal hours of operation (**Section 9.2**) shall be avoided.

9.5 Vibration

The use of plant and machinery shall not cause vibrations to be felt or capable to be measured at neighbouring premises.

9.6 Air Quality

During remedial works, dust emissions and any odours will be confined within the site boundary.

9.6.1 Air Monitoring

Perimeter air monitoring will be required during the disturbance of asbestos impacted soils as potentially present across the extent of the site. Air monitoring will be conducted in accordance with the requirements of the National Occupational Health and Safety Commission (NOHSC) *Asbestos Code of Practice and Guidance Notes*, in particular the *Guidance Note on the Membrane Filter Method Estimating Airborne Asbestos Fibres* 2nd Edition [NOHSC 3002:2005].

9.6.2 Dust Control

During the remedial works, as necessary, excavation areas will be wetted down using a water spray to minimise the potential for dust to be generated by the remedial contractor.

Dust shall also be controlled by ensuring vehicles leave via the designated (stabilised) site access and all equipment have dust suppressors fitted by the remedial contractor.

During all remedial works, dust screens will be erected around the perimeter of the site by the remedial contractor. Where significant fugitive emissions are observed from specific site areas, these areas shall be wetted and/or covered by the remedial contractor.

Meteorological conditions will be monitored by the environmental consultant and remedial contractor. Remedial work will be stopped or modified where meteorological conditions are adverse (i.e., dry conditions and strong winds towards sensitive receptors).

Plant and vehicles should limit their speed when working within asbestos exclusion zones and only traverse wetted haul roads.

9.6.3 Odour

Given the nature of some of the material being excavated at the site, namely hydrocarbon impacted soils, there may be some odour issues at the site boundaries.

If odours are detectable at the site boundaries, then 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.

9.7 Groundwater

No groundwater remediation or dewatering is proposed as part of site remediation works. No approvals are required under the *Water Management Act 2000*.

9.8 Material Transporting

Trucks will be loaded in a designated area in a manner designed to minimise noise, vibrations and odour to adjoining premises. The transportation contractor shall ensure that there is no material tracked out onto public roads and that each load is securely covered. Removal and deliveries of soils and materials, equipment and machinery will only occur during the hours of remediation works unless specific approvals are obtained.

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. In addition, the transport contractor will be required to be appropriately licensed to transport and dispose of the waste identified as requiring removal from the site.

As of 1 July 2015, it will be required under the *Protection of the Environment Operations (Waste) Regulations 2014* (POEO 2014) to record the movement of all loads of more than 100 kg of asbestos waste or more than 10 m^2 of asbestos sheeting. Each load will be assigned a unique consignment code to allow NSW EPA to monitor their movement from site of generation to disposal.

In addition, the proximity principle, under POEO 2014, makes it an offence to transport waste generated in NSW by motor vehicle for disposal more than 150 kilometres from the place of generation, unless the is waste is transported to one of the two nearest lawful disposal facilities to the place of generation.

9.9 Hazardous Materials

Hazardous and / or intractable wastes arising from the remediation work shall be removed and disposed of in accordance with the requirements of NSW EPA, SafeWork NSW and the relevant regulations by the Contractor.

Any hazardous wastes will be transported by a NSW EPA licensed transporter.

9.10 Disposal of Contaminated Soil

All soil will be classified, managed and disposed in accordance with the *Waste Classification Guidelines* (EPA 2014b). Documentary evidence for all soil disposal shall be kept for inclusion in the Validation Report.

9.11 Site Signage and Contact Numbers

A sign shall be displayed adjacent to the site access throughout the duration of the works with the contact details of the remediation contractor and project manager.

9.12 Community Relations

Owners and/or occupants of premises adjoining the site will be notified at least seven days prior to the commencement of remedial works.

Any community concerns or queries should be directed to the site manager. The site manager will notify the site owner of any community queries or concerns so that the site owner will direct an appropriate person to address the community query or concern.

9.13 Site Security

The remedial areas shall be secured against unauthorised access by means of an appropriate fence.

9.14 Occupational Health and Safety

It is the employer's responsibility to ensure that all site remediation works comply with all Work Health and Safety and Construction Safety Regulations of NSW SafeWork. A Health and Safety Plan is provided in **Section 10.**

10. Health and Safety

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 and other demolition 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;
- Ensuring all works are undertaken in accordance with appropriate regulations and standards;
- 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.

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

The known or potential hazards associated with the work activities described in **Section 5** are listed below:

- Inhalation hazards associated with the presence of ACM fragments in/on soil;
- Chemical hazards associated with the presence of potentially contaminated soil inclusive of elevated levels of petroleum hydrocarbons, heavy metals and PAHs;
- Physical hazards, including:
    - work in or near excavations;
    - operating machinery;
    - heat stress and UV exposure;
    - underground (particularly with the presence of UST(s)) or overhead services;
    - manual handling; and
    - noise.

In the event of the discovery of any condition that would suggest the existence of a situation more hazardous than anticipated, or of any new hazard that could potentially cause serious harm to personnel or the environment, work will be suspended until the Project Manager has been notified and appropriate instructions have been provided to field personnel.

10.2.1 Inhalation Hazards

The main inhalation hazards from the remediation/validation works are consequent of the presence of asbestos.

Measures require 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 airborne emissions are likely to be generated, Personal Protective Equipment (PPE) shall be required to be worn to prevent potential exposure, as described in **Section 10.3**.

10.2.2 Chemical Hazards

When working with potentially contaminated materials in general, care must be taken to ensure that the contamination is not introduced to the worker via ingestion, inhalation or absorption. PPE and decontamination requirements related to the remedial works are summarised in **Section 10.3**.

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. backhoes).

Work in or Near Excavations

All excavations shall be shored, sloped or otherwise constructed so as to minimise the potential for collapse. No excavations greater than 1.5 m depth are anticipated to be created.

Cuts and Abrasions

The manual work associated with the remediation works gives 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.

It is further noted that the presence of UST(S) will require appropriate decommissioning in which the Remedial Contractor shall ensure that appropriate procedures will be taken to minimise the risk associated with the works.

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 use 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.

All equipment shall be operated in compliance with the NSW WorkCover (2006) Work Near Overhead Power Lines: Code of Practice. Minimum approach distances for all equipment should exceed:

- 3.0 m for nominal phase to phase ac voltage lines up to 132,000 Volts;
- 6.0 m for 132 000 to 330 000 Volts;
- 8.0 m for greater than 330 000 Volts; and
- 3.0 m for nominal pole to earth dc voltage up to and including 1500 +/- volts.

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. 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 PPE:

- Overalls or long sleeved collared shirt;
- Heavy duty outer gloves (eg. 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 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.

10.5 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 a Construction Asbestos Management Plan.

10.6 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, 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.

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 Project Manager.

11. Regulatory Approvals / Licensing

11.1 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 1000 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 1000 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.

11.2 State Environment Planning Policy (Resilience and Hazards) 2021

Development consent for remediation works is addressed by reference to State Environmental Planning Policy 55 – Remediation of Land (SEPP-RH) and associated Planning Guidelines (DUAP 1998).

The proposed remediation works are classified as 'Category 2' Remediation Works – i.e. not requiring consent. The notification requirements of SEPP 55 include notification to council 30 days before Category 2 remediation works commence. The proposed works do not constitute Category 1 works because it is understood that:

- The work is not Designated Development under Schedule 3 of the EPA&A Regulation or under a planning instrument.
- The work proposed is not on land identified as critical habitat under the *Threatened Species Conservation Act 1995*.
- Consideration of s.5A of the EP&A Act indicates the remediation work is not likely to have a significant effect on threatened species, populations, ecological communities or their habitats.
- The work is not 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 does not require consent under another SEPP or regional environmental plan.

In addition, the notification will also include relevant contact details and a proposed remediation schedule. Notice is also required to be given to Council within 30 days of remediation works completion.

11.3 Protection of the Environment Operations (Waste) Regulation 2014

The regulations make requirements relating to non-licensed waste activities and waste transporting. The proposed works on the site will not require to be licensed. Section 48 of the Reg. requires that wastes are stored in an environmentally safe manner. It also stipulates that vehicles used to transport waste must be covered when loaded.

It will be required under the *Protection of the Environment Operations (Waste) Regulations 2014* (POEO 2014) to record the movement of all loads of more than 100 kg of asbestos waste or more than 10 m^2 of asbestos sheeting. Each load will be assigned a unique consignment code to allow NSW EPA to monitor their movement from site of generation to disposal.

In addition, the proximity principle, under POEO 2014, makes it an offence to transport waste generated in NSW by motor vehicle for disposal more than 150 kilometres from the place of generation, unless the waste is transported to one of the two nearest lawful disposal facilities to the place of generation.

11.4 Waste Classification Guidelines (EPA 2014b)

All wastes generated and proposed to be disposed off-site shall be assessed, classified and managed in accordance with this guideline.

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* (SWA 2020a), *Code of Practice How to Manage and Control Asbestos in the Workplace* (SWA 2020b), NSW SafeWork Guidelines, the NSW EPA (2014b) *Waste Classification Guidelines*, and requirements under the *Protection of the Environment Operations (Waste) Regulation* (2014) for asbestos waste monitoring (NSW EPA 2015).

Excavation, onsite remediation 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

Subject to the successful implementation of the measures detailed in this RAP and subject to the limitations in **Section 13**, it is considered the site can be made suitable for the proposed land use.

12.1 Conclusions

It is considered that the proposed actions outlined in this RAP conform to EPA requirements because they are: technically feasible; environmentally justifiable; and consistent with relevant laws, policies and guidelines endorsed by NSW EPA.

Subject to the successful implementation of the measures described in this RAP and the recommendations below, it is concluded that the risks posed by potential human and/or ecological exposure to contaminated soils can be managed in such a way as to be adequately protective of human / ecological receptors such that the land can be made suitable for the proposed commercial / industrial land uses.

12.2 Recommendations

It is recommended that the processes outlined in this RAP be implemented to ensure the risks and impacts during remediation and construction works are controlled in an appropriate manner.

Upon completion of the remediation works, a Validation Report is required to be prepared to verify remedial works were completed in accordance with the RAP. A LTEMP will further require to be prepared to ensure the ongoing management of the retained impacted soils, unless a comprehensive validation assessment is able to be generated otherwise that shows that levels of asbestos and/or other potential contaminants do not pose a potential human health or ecological risk. An Asbestos Register, as per the *Work Health and safety Regulation 2017* would be required for any retained asbestos impacted materials regardless under this scenario.

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.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquiries.

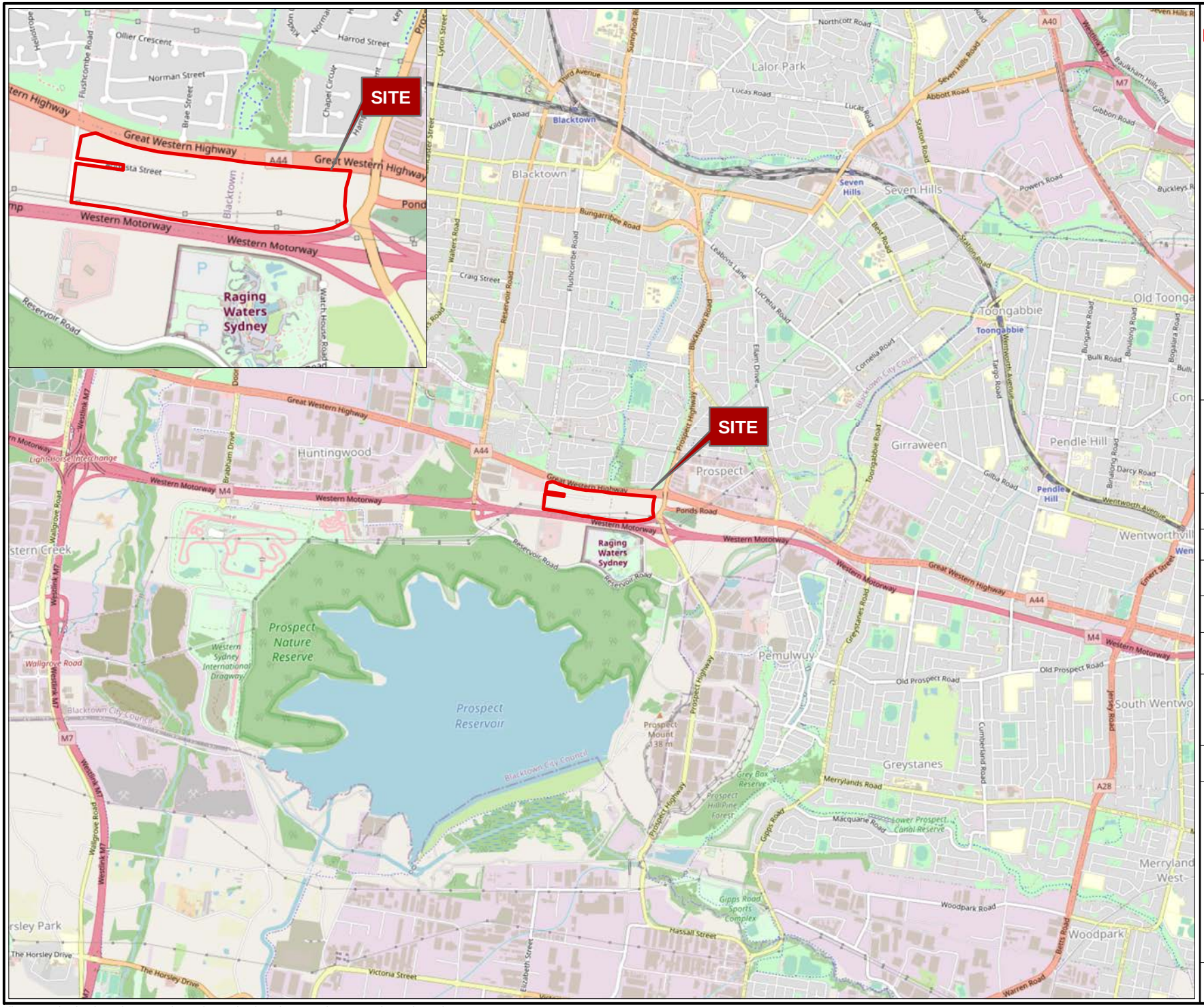
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the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

Figures



Legend

Approximate Site Boundary

JBS&G

Job No: 62742	
Client: Logos Australia	
Version: R01_Rev A	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:50,000

0 500 1,000

metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SITE LOCATION

FIGURE 1

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_01_SiteLocation.mxd
Reference: Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA



Legend

- Approximate Site Boundary
- Lot / DP
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment Area
- Central Western Assessment Area
- Central Eastern Assessment Area
- Eastern Assessment Area

JBS&G

Job No: 62742	
Client: Logos Australia	
Version: R01_Rev A	Date 18/07/2022
Drawn By: YY	Checked By: JN
Scale 1:5,500	

0 50 100
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SITE LAYOUT

FIGURE 2

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_02B_SiteLayout_Current Lot and DPs .mxd
Reference: www.nearmap.com - Imagery 20220519



Legend

Historical Assessment

- Assessment Area DP
- Assessment Area WSP
- Assessment Area WSP
- Current Assessment Area & JBS (2010a and b)

JBS&G

Job No: 62742	
Client: Logos Australia	
Version: R01_RevA	Date 19/07/2022
Drawn By: YY	Checked By: JN

Scale 1:5,500

0 50 100

metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

HISTORICAL ASSESSMENT AREAS

FIGURE 3

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_03_HistoricalAssessmentAreas.mxd
Reference: www.nearmap.com - Imagery 20220519



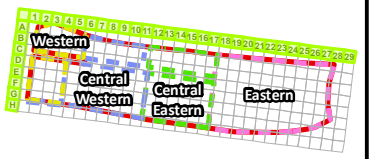
ID	Observation - Western Area	Source
2D	Concrete and Brick	WSP 2020b
3A	Built up Land	JBS&G 2021
3B	Built up Land	JBS&G 2021
3E	Trenches / Mounded Soil	JBS&G 2021
3F	Disturbed Surface Soils	JBS&G 2021
3G	Trenches / Mounded Soil	JBS&G 2021
5A	ACM in Fill - SPC	WSP 2020b
5D	ACM in Fill - WSP-SP88	WSP 2020b
5F	ACM Observed - JACM1	JBS&G 2021

Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:2,814

0 30 60
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SITE INSPECTION OBSERVATIONS AND LOCATION OF HISTORICAL STOCKPILES – CENTRAL WESTERN ASSESSMENT AREA

FIGURE 4A

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_04A_SiteInspectionObservations_LocationofHistoricalStockpiles_CentralWestern.mxd
Reference: www.nearmap.com - Imagery 20110917



Site Features

- ACM in Fill Observed, WSP 2020b
- ACM in Fill Observed, JBS&G 2021
- Building Rubble / Anthropogenic Waste, WSP 2020b
- Building Rubble / Anthropogenic Waste, JBS&G 2021
- Commercial Building, WSP 2020b
- Disturbed Soil, JBS&G 2021
- Stockpile Location, JBS 2010a
- Stockpile Location, WSP 2020b
- Stockpile Observed, JBS&G 2021

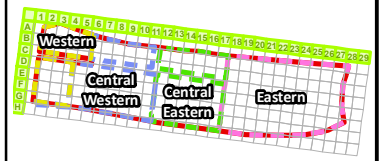
ID	Observation - Central Area	Source
1A	Stockpile Observed - JSP1	JBS&G 2021
1B	Stockpile Observed - JSP2	JBS&G 2021
2A	Dumped Waste	WSP 2020b
2C	Tyres	JBS&G 2021
3D	Trenches / Mounded Soil	JBS&G 2021
4	Telecom Building	WSP 2020b
5B	ACM in Fill - SPA	WSP 2020b

Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA | Date 18/07/2022

Drawn By: YY | Checked By: JN

Scale 1:2,500

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SITE INSPECTION OBSERVATIONS AND LOCATION OF HISTORICAL STOCKPILES – CENTRAL EASTERN ASSESSMENT AREA

FIGURE 4B

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_04B_SiteInspectionObservations_LocationofHistoricalStockpiles_CentralEastern.mxd
Reference: www.nearmap.com - Imagery 20110917



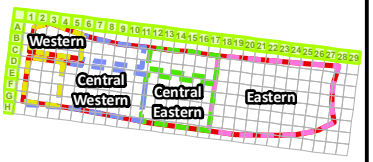
ID	Observation - Eastern	Source
2B	Concrete Rubble	JBS&G 2021
3C	Built up Land	JBS&G 2021
5E	ACM Observed - JACM2	JBS&G 2021

Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA | Date 18/07/2022

Drawn By: YY | Checked By: JN

Scale 1:2,500

0 25 50
metres

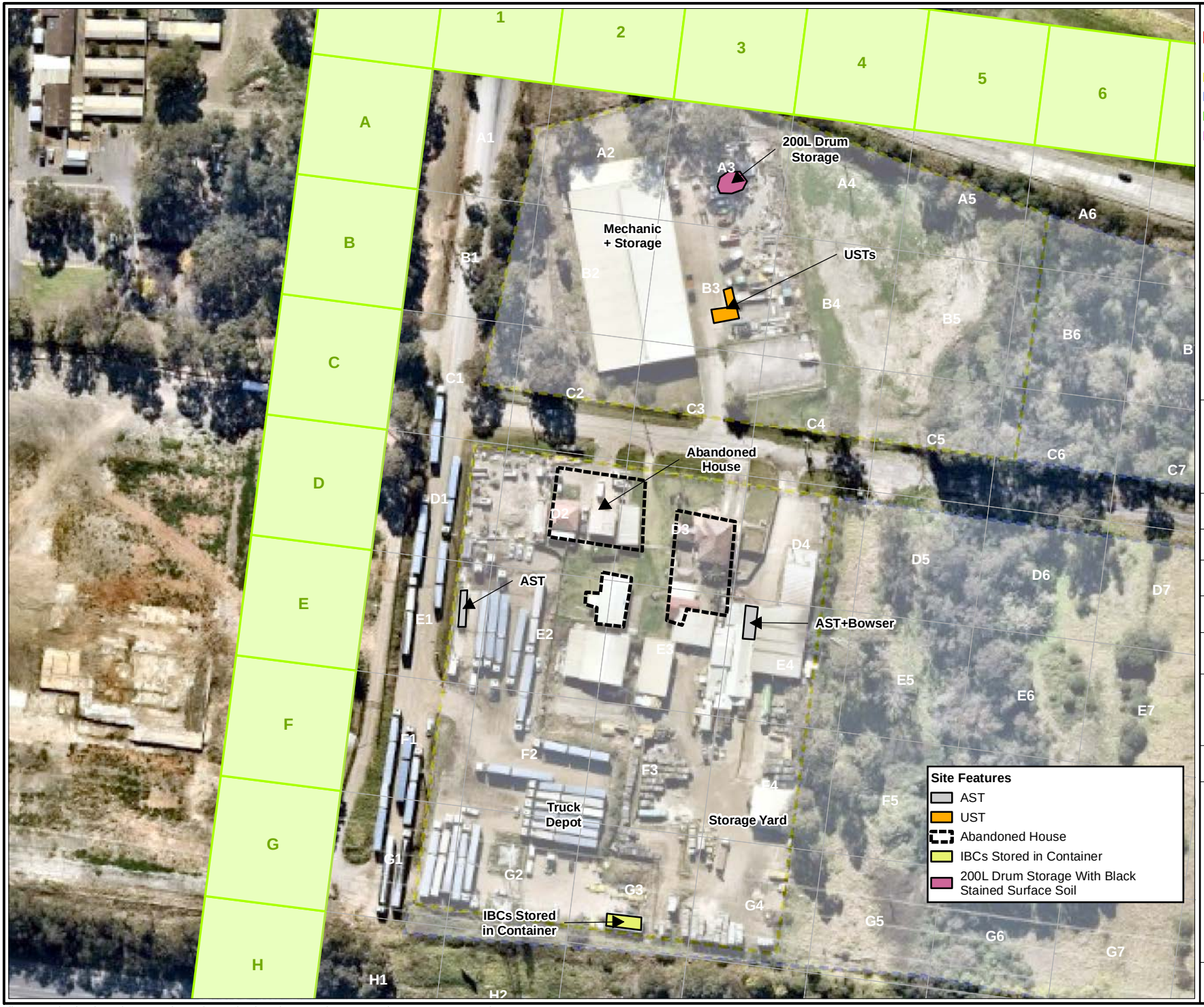
Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SITE INSPECTION OBSERVATIONS AND LOCATION OF HISTORICAL STOCKPILES – EASTERN ASSESSMENT AREA

FIGURE 4C

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_04C_SiteInspectionObservations_LocationofHistoricalStockpiles_Eastern.mxd
Reference: www.nearmap.com - Imagery 20110917

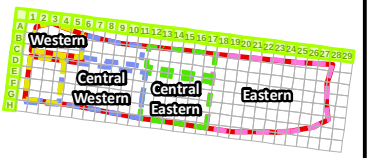


Legend

Approximate Site Boundary

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:1,700

0 10 20

metres

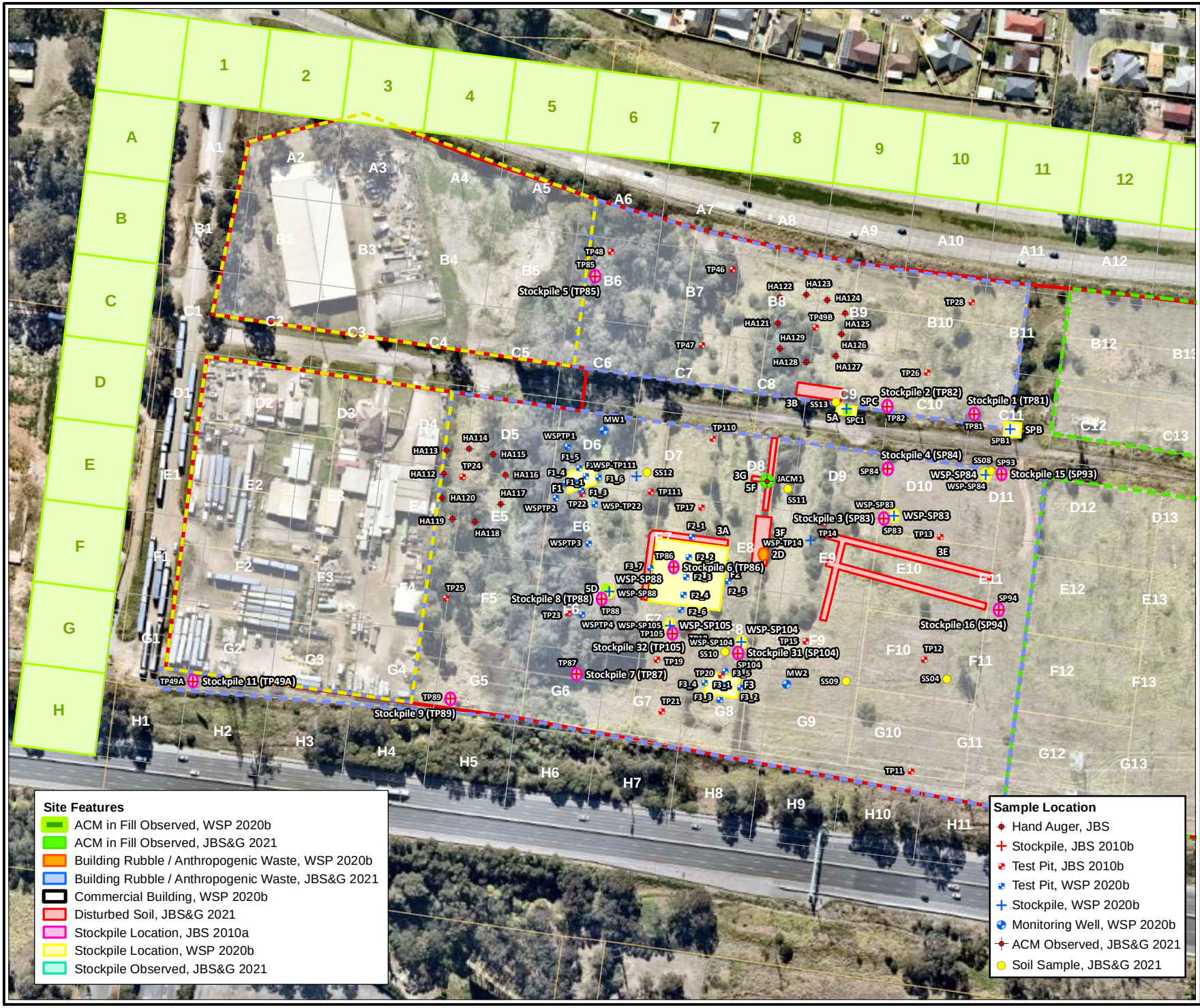
Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SITE FEATURES - WESTERN ASSESSMENT AREA

FIGURE 4D

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_04D_SiteFeatures_Western.mxd
Reference: www.nearmap.com - Imagery 20110917



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:2,500

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

HISTORICAL SAMPLE LOCATIONS- CENTRAL WESTERN ASSESSMENT AREA

FIGURE 5A

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_05A_HistoricalSampleLocations_CentralWestern.mxd
Reference: www.nearmap.com - Imagery 20110917

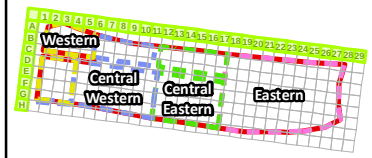


Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:2,500

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

HISTORICAL SAMPLE LOCATION- CENTRAL EASTERN ASSESSMENT AREA

FIGURE 5B

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_05B_HistoricalSampleLocations_CentralEastern.mxd
Reference: www.nearmap.com - Imagery 20110917

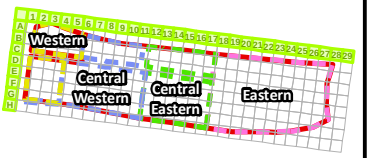


Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment Area
- Central Western Assessment Area
- Central Eastern Assessment Area
- Eastern Assessment Area



JBS&G

Job No: 62742	
Client: Logos Australia	
Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN
Scale 1:2,500	

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

HISTORICAL SAMPLE LOCATIONS - EASTERN ASSESSMENT AREA

FIGURE 5C

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_05C_HistoricalSampleLocations_Eastern.mxd
Reference: www.nearmap.com - Imagery 20110917



Legend

Approximate Site Boundary

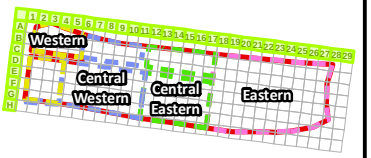
Assessment Areas

Western Assessment Area

Central Western Assessment Area

Central Eastern Assessment Area

Eastern Assessment



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:1,700

0 10 20

metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SAMPLE LOCATIONS - WESTERN ASSESSMENT AREA

FIGURE 5D

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_05D_SampleLocations_Western.mxd
Reference: www.nearmap.com - Imagery 20110917

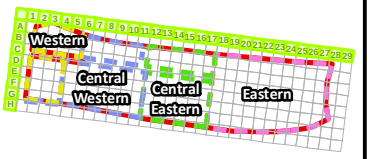


Legend

- Approximate Site Boundary

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



NOTE: Analyical exceedances are represented in text box format identifying concentration &/or asbestos speciation description. Field observations of ACM are represented as legend nominated icon

JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:2,500

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SOIL EXCEEDANCES - CENTRAL WESTERN ASSESSMENT AREA

FIGURE 6A

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_06A_SoilExceedances_CentralWestern.mxd
Reference: www.nearmap.com - Imagery 20110917

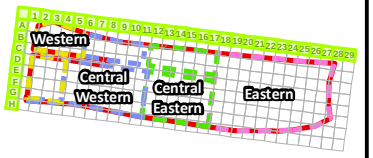


Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



NOTE: Analyical exceedances are represented in text box format identifying concentration &/or asbestos speciation description. Field observations of ACM are represented as legend nominated icon

JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:2,500

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SOIL EXCEEDANCES - CENTRAL EASTERN ASSESSMENT AREA

FIGURE 6B

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_06B_SoilExceedances_CentralEastern.mxd
Reference: www.nearmap.com - Imagery 20110917

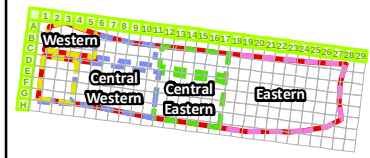


Legend

- Approximate Site Boundary
- NSW Cadastre (DFSI, 2021)

Assessment Areas

- Western Assessment
- Central Western Assessment
- Central Eastern Assessment
- Eastern Assessment



NOTE: Analyical exceedances are represented in text box format identifying concentration &/or asbestos speciation description. Field observations of ACM are represented as legend nominated icon

JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA	Date 18/07/2022
Drawn By: YY	Checked By: JN

Scale 1:2,500

0 25 50
metres

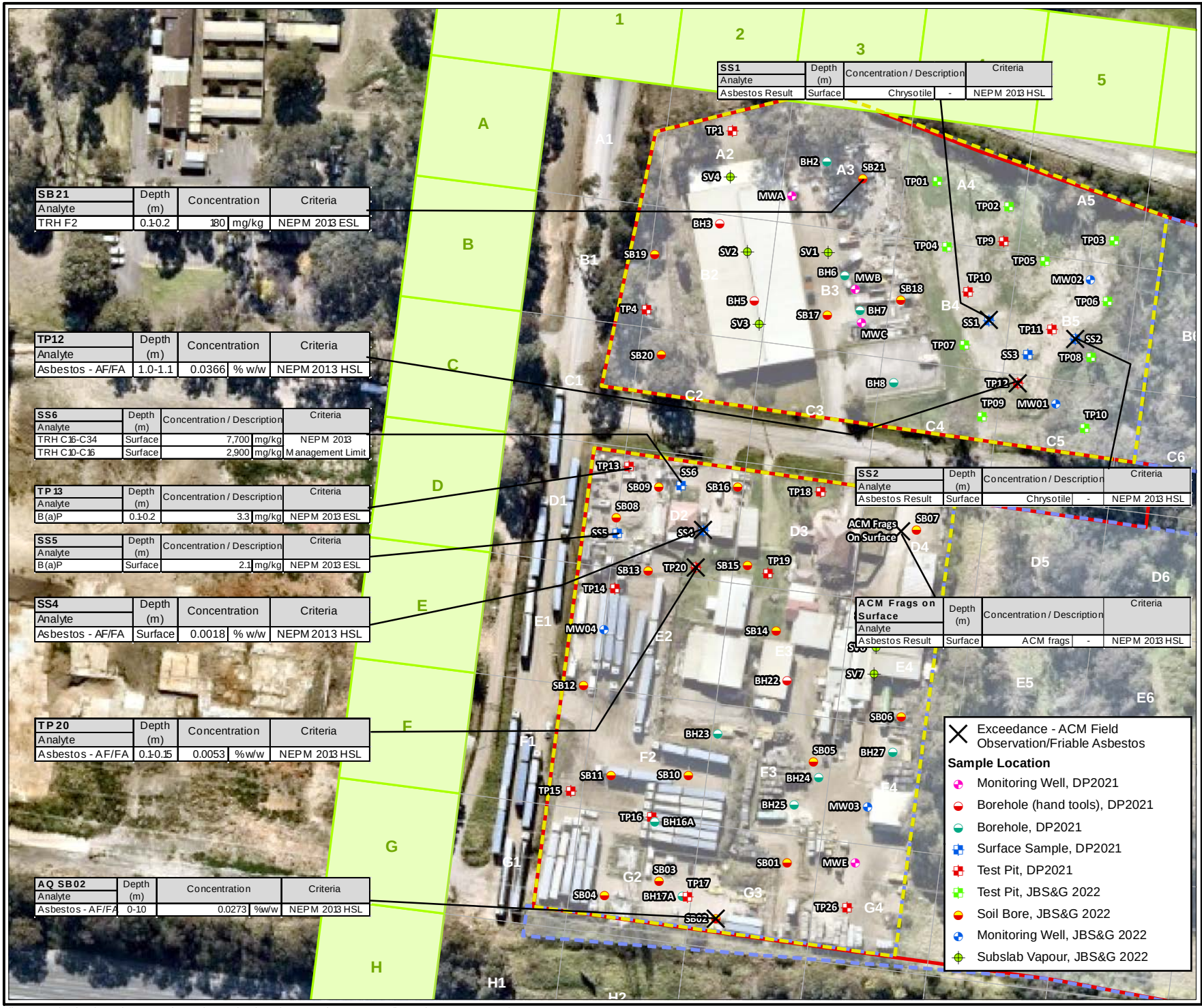
Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SOIL EXCEEDANCES - EASTERN ASSESSMENT AREA

FIGURE 6C

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_06C_SoilExceedances_Eastern.mxd
Reference: www.nearmap.com - Imagery 20110917



SS1	Depth (m)	Concentration / Description		Criteria
Analyte				
Asbestos Result	Surface	Chrysotile	-	NEPM 2013 HSL

SB21	Depth (m)	Concentration		Criteria
Analyte				
TRH F2	0.1-0.2	180	mg/kg	NEPM 2013 ESL

TP12	Depth (m)	Concentration		Criteria
Analyte				
Asbestos - AF/FA	1.0-1.1	0.0366	% w/w	NEPM 2013 HSL

SS6	Depth (m)	Concentration / Description		Criteria
Analyte				
TRH C16-C34	Surface	7,700	mg/kg	NEPM 2013
TRH C10-C16	Surface	2,900	mg/kg	Management Limit

TP13	Depth (m)	Concentration / Description		Criteria
Analyte				
B(a)P	0.1-0.2	3.3	mg/kg	NEPM 2013 ESL

SS5	Depth (m)	Concentration / Description		Criteria
Analyte				
B(a)P	Surface	2.1	mg/kg	NEPM 2013 ESL

SS4	Depth (m)	Concentration		Criteria
Analyte				
Asbestos - AF/FA	Surface	0.0018	% w/w	NEPM 2013 HSL

TP 20	Depth (m)	Concentration		Criteria
Analyte				
Asbestos - AF/FA	0.1-0.15	0.0053	%w/w	NEPM 2013 HSL

AQ SB02	Depth (m)	Concentration		Criteria
Analyte				
Asbestos - AF/FA	0-10	0.0273	%w/w	NEPM 2013 HSL

SS2	Depth (m)	Concentration / Description		Criteria
Analyte				
Asbestos Result	Surface	Chrysotile	-	NEPM 2013 HSL

ACM Frags on Surface	Depth (m)	Concentration / Description		Criteria
Analyte				
Asbestos Result	Surface	ACM frags	-	NEPM 2013 HSL

Exceedance - ACM Field Observation/Friable Asbestos

Sample Location

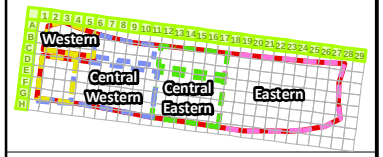
- Monitoring Well, DP2021
- Borehole (hand tools), DP2021
- Borehole, DP2021
- Surface Sample, DP2021
- Test Pit, DP2021
- Test Pit, JBS&G 2022
- Soil Bore, JBS&G 2022
- Monitoring Well, JBS&G 2022
- Subslab Vapour, JBS&G 2022

Legend

- Approximate Site Boundary

Assessment Areas

- Western Assessment Area
- Central Western Assessment Area
- Central Eastern Assessment Area
- Eastern Assessment Area



JBS&G

Job No: 62742

Client: Logos Australia

Version: R01_RevA | Date 18/07/2022

Drawn By: YY | Checked By: JN

Scale 1:1,700

0 10 20
metres

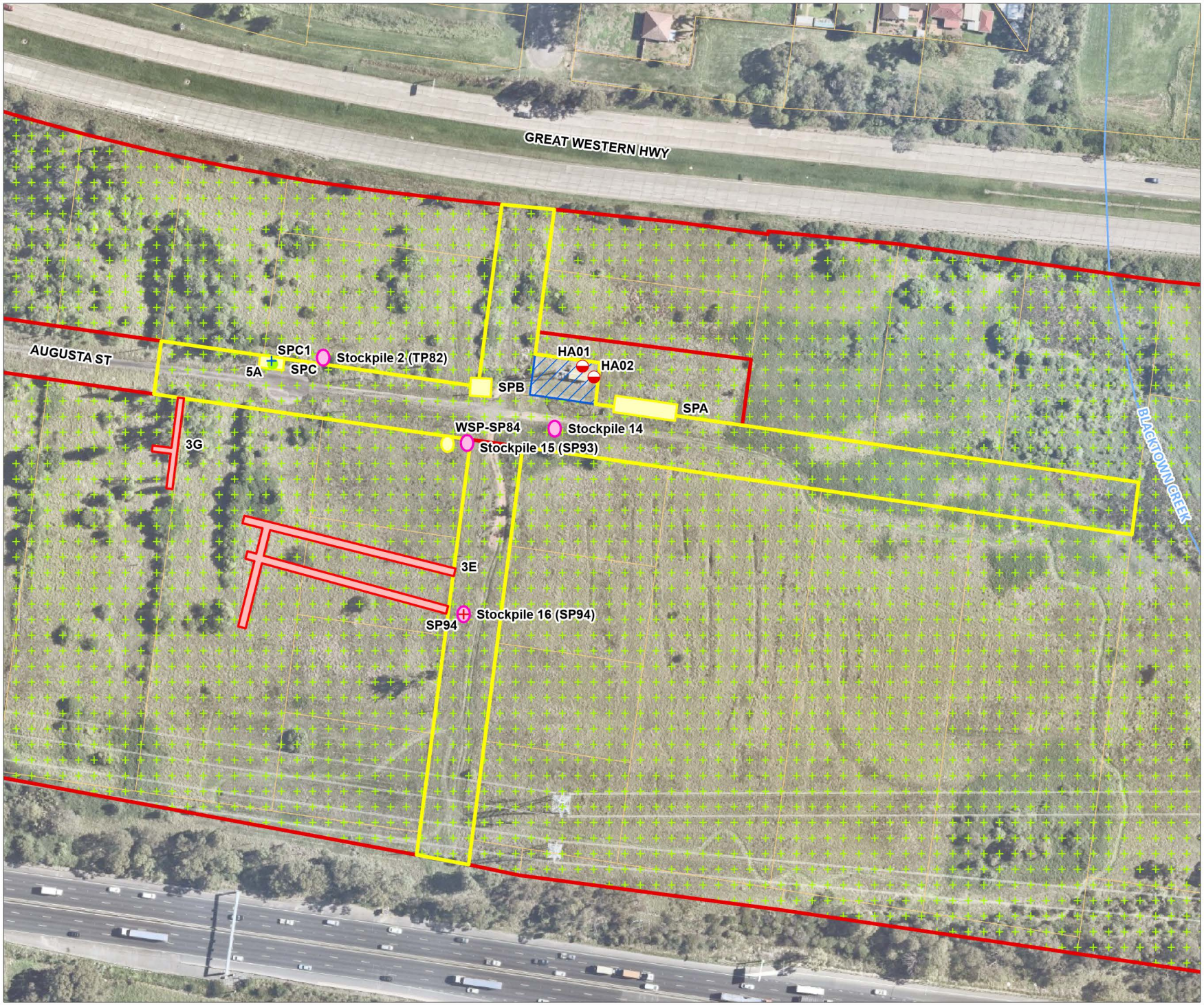
Coord. Sys. GDA 1994 MGA Zone 56

Huntington East
Augusta Street
Blacktown, NSW

SOIL EXCEEDANCES - WESTERN ASSESSMENT AREA

FIGURE 6D

File Name: N:\Projects\Logos\62742 Huntingwood SEARs\GIS\Maps\R01_RevA\62742_06D_SoilExceedances_Western.mxd
Reference: www.nearmap.com - Imagery 20110917



Legend:

- Assessment Area
- Investigation Area
- Blacktown Lands
- Telstra Exchange
- NSW Cadastre
- Hydro Line

Site Features

- ACM in Fill Observed, WSP 2020b
- Disturbed Soil, JBS&G 2021
- Stockpile Location, JBS 2010a
- Stockpile Location, WSP 2020b

Sample Locations

- Stockpile, JBS 2010b
- Stockpile, WSP 2020b
- Sample Location JBS&G 2023

JBS&G

Job No: 64632	
Client: Logos	
Version: L01 Rev A	Date 20/03/2023
Drawn By: LJ	Checked By: DR
Scale 1:2,000	

0 25 50
metres

Coord. Sys. GDA 1994 MGA Zone 56

Augusta St
Huntingwood, NSW

SAMPLE LOCATIONS

FIGURE 3

File Name: 64632_Huntingwood_L01_RevA
Reference: Nearmap www.nearmap.com 20230203



Legend

- Approximate Project Boundary
- Approximate Containment Area

JBS&G

Job No: 65567	
Client: Logos	
Version: R05 Rev A	Date 16/02/2024
Drawn By: JL	Checked By: CB

Scale 1:5,500

0 50 100

metres

Coord. Sys. GDA 1994 MGA Zone 56

Augusta Street
Blacktown, NSW

SITE LAYOUT AND
PROPOSED CONTAINMENT AREA

FIGURE 7

File Name: 62742_TelstraExchangeDSI_Huntingwood_R05RevA
Reference: Nearmap - www.nearmap.com (Capture Date: 30/03/2023)

Appendix A Soil Summary Table

Table A: Soil Analytical Results 2022
Project Number: 62742
Project Name: Huntingwood - Western Portion

| | Metals & Metalloids | | | | | | | | TPHs (NEPC 1999) | | | | TRHs (NEPC 2013) | | | | | | BTEXN | | | | | | PAH | | | | | | | |

Table A: Soil Analytical Results 2022
Project Number: 62742
Project Name: Huntingwood - Western Portion

| | Polychlorinated Biphenyls | | | | | | | | | | | | | | PFAS | | | | | | | | | | | | | |

Table B: Soil Asbestos Results
Project Number: 62742
Project Name: Huntingwood

	Field Asbestos Quantification					Asbestos - Eurofins														
	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Approximate Sample Mass	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	Synthetic Fibres - Comment	Asbestos Reported Result
						g	g	g	% (w/w)	g	g	g	g	% (w/w)	g	Comment	Comment	Comment	Comment	Comment	Comment
EQL																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil									0.05					0.001							
Field_ID	**Lab Report**	**Date**																			
AQ MW03-0-0.8	890110	9/05/2022	10.00	16300	0.00	0.00	0.0000	1089	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ MW04-0-0.5	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	658	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB02-0-1.0	890110	12/05/2022	10.00	16300	0.00	0.00	0.0000	601	0	0	0	**0.4102**	**0.1641**	0	0	**0.0273**	**0.1641**	No	No	No	No	No	No
AQ SB03-0-1.0	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	901	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB04-0-1.0	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	714	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB04-1-1.3	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	701	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB05-0-1.0	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	515	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB06-0-1.0	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	512	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB07-0-0.8	890110	10/05/2022	10.00	16300	0.00	0.00	0.0000	414	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB09-0-0.4	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	644	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB10-0-1.0	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	769	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB10-1.0-2.0	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	446	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB11-1.0-2.0	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	654	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB12-0-0.7	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	648	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB14-0-0.2	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	415	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB15-0-0.7	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	438	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB16-0.2-0.6	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	440	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB19-0-0.9	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	350	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ SB20-0-0.8	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	385	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP01-0-1.0	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	625	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP02-0.2-1.2	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	710	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP02-0-0.2	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	1045	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP04-0.1-0.4	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	651	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP04-0-0.1	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	548	**0.4754**	**0.0475**	**0.0087**	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP05-0.2-1.2	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	614	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP05-0-0.2	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	605	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP06-1.0-1.9	890111	11/05/2022	10.00	16300	0.00	0.00	0.0000	245	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP07-0.2-1.1	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	625	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP08-0.4-1.4	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	597	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP08-0-0.4	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	564	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP10-0.4-1.1	890111	11/05/2022	10.00	16300	0.00	0.00	0.0000	609	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQ TP10-0-0.3	890111	11/05/2022	10.00	16300	0.00	0.00	0.0000	530	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQMW01-0-1.0	890110	9/05/2022	10.00	16300	0.00	0.00	0.0000	304	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQSB08-0-0.4	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	591	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQTP03-0.1-1.1	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	554	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQTP03-0-0.1	890110	11/05/2022	10.00	16300	0.00	0.00	0.0000	663	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No
AQTP06-1.9-2.8	890111	11/05/2022	10.00	16300	0.00	0.00	0.0000	802	0	0	0	0	0	0	0	0	0	No	No	No	No	No	No

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

					Metals & Metalloids								TPH					TRHs (NEPC 2013)							TPH Silica Gel			TRH Silica Gel			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)	C16-C34	C6-C10	C10-C16	C34-C40	C10-C40 (Sum of Total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	TPH C10 - C14 SG	TPH C15 - C28 SG	TPH C29 - C36 SG	TRH C10 - C16 SG	TRH C16 - C34 SG	TRH C34 - C40 SG	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil					3000	900	3600	240000	1500	730	6000	400000											310	NL							4	NL	NL			NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																							480	NL							6	NL	NL			NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																							NL	NL							9	NL	NL			NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																							NL	NL							20	NL	NL			NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																							260								3					230								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																											
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)					160		660	190	1800		460	280																								370							
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																		2500			6600		215	170							95	135	185			95							
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																		1700			3300		215	170							75	135	165			180					1.4		
CRC Care B(a)P Guidance																																									67		
Kansas Department of Health and Environment (2002)																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																		5000			10000																							
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																		3500	700	1000	10,000																							
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																											
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																								
JBS 2010																																											
In-situ Soil Samples																																											
TP1	0-0.15	4/12/2009	Silty clay	JBS 2010	6	<0.5	16	-	39	0.3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP002	0-0.1	3/12/2009	Silty clay	JBS 2010	8	<0.5	22	-	23	<0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP003	0-0.15	3/12/2009	Silty clay	JBS 2010	7	<0.5	22	-	31	0.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC4 (duplicate of TP003)	0-0.15	3/12/2009	Silty clay	JBS 2010	5	<0.5	18	-	26	<0.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP004	0-0.1	3/12/2009	Silty clay	JBS 2010	7	<0.5	18	-	33	<0.1	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP005	0-0.1	3/12/2009	Silty clay	JBS 2010	21	<0.5	38	-	37	<0.1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP006	0-0.15	3/12/2009	Silty clay	JBS 2010	12	<0.5	36	-	49	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP007	0-0.1	3/12/2009	Silty clay	JBS 2010	14	<0.5	25	-	62	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP008	0-0.15	3/12/2009	Fill	JBS 2010	18	<0.5	43	-	55	<0.1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP009	0-0.1	3/12/2009	Silty clay	JBS 2010	9	<0.5	28	-	46	<0.1	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP010	0-0.15	3/12/2009	Silty clay	JBS 2010	17	<0.5	26	-	88	0.3	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP011	0-0.15	4/12/2009	Silty clay	JBS 2010	8	<0.5	25	20	35	<0.1	12	45	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
QC7 (duplicate of TP011)	0-0.15	4/12/2009	Silty clay	JBS 2010	5	<0.5	18	18	29	<0.1	9	40	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP012	0-0.15	4/12/2009	Silty clay	JBS 2010	5	<0.5	19	-	40	<0.1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP013	0-0.1	3/12/2009	Silty clay	JBS 2010	6	<0.5	18	-	42	<0.1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP014	0-0.1	4/12/2009	Fill	JBS 2010	36	<0.5	27	25	210	<0.1	14	570	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
M3 (fragment from TP014)	surface	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M3 (soil under M3)	0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP015	0-0.15	4/12/2009	Silty clay	JBS 2010	7	<0.5	24	-	54	<0.1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP017	0-0.1	4/12/2009	Silty clay	JBS 2010	<4	<0.5	59	-	56	<0.1	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP018	0-0.15	4/12/2009	Silty clay	JBS 2010	8	<0.5	15	22	27	<0.1	9	64	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC9 (duplucate of TP018)	0-0.15	4/12/2009	Silty clay	JBS 2010	6	<0.5	11	-	19	<0.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP019	0-0.15	4/12/2009	Fill	JBS 2010	11	<0.5	22	24	40	<0.1	14	120	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP020	0-0.15	4/12/2009	Silty clay	JBS 2010	6	<0.5	20	23	35	<0.1	14	76	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP021	0-0.15	4/12/2009	Silty clay	JBS 2010	9	<0.5	23	25	36	<0.1	16	86	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	-	-	-	-	-	-	-	-
F1 (Fragment from TP022)	surface	9/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS1 (soil under F1)	0.1	9/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP022B	0-0.1	9/12/2009	Fill	JBS 2010	9	<0.5	25	-	110	<0.1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP023	0-0.1	4/12/2009	Silty clay	JBS 2010	7	<0.5	25	-	24	<0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP024B	0-0.1	9/12/2009	Silty clay	JBS 2010	10	<0.5	25	-	1100	<0.1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP025	0-0.1	4/12/2009	Silty clay	JBS 2010	9	<0.5	66	-	32	<0.1	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP026	0-0.1	4/12/2009	Silty clay	JBS 2010	10	<0.5	24	-	30	<0.1	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP027	0-0.15	4/12/2009	Silty clay	JBS 2010	8	<0.5	27	-	48	<0.1	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP028	0-0.1	4/12/2009	Fill	JBS 2010	7	<0.5	23	-	40	<0.1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP029	0-0.15	4/12/2009	Silty clay	JBS 2010	6	<0.5	200	32	21	<0.1	140	44	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP029	0.5-0.7	4/12/2009	Silty clay	JBS 2010	10	<0.5	93	-	23	<0.1	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP030	0-0.15	4/12/2009	Silty clay	JBS 2010	5	<0.5	85	-	85	<0.1	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP031	0-0.1	4/12/2009	Silty clay	JBS 2010	7	<0.5	37	-	49	<0.1	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP032	0-0.1	4/12/2009	Fill	JBS 2010	<4	<0.5	130	32	9	<0.1	130	58	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP032	0.3-0.4	4/12/2009	Fill	JBS 2010	<4	<0.5	160	-	12	<0.1	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP033	0-0.15	4/12/2009	Silty clay	JBS 2010	7	<0.5	31	-	110	<0.1	29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP034	0-0.1	4/12/2009	Fill	JBS 2010	7	<0.5	150	36	19	<0.1	130	61	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP035	0-0.1	4/12/2009	Fill	JBS 2010	5	<0.5	120	36	20	<0.1	120	60	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP035	1.6-1.8	4/12/2009	Fill	JBS 2010	12	<0.5	34	-	32	<0.1	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP036	0-0.1	4/12/2009	Fill	JBS 2010	5	<0.5	170	42	17	<0.1	180	75	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP037	0-0.1	4/12/2009	Fill	JBS 2010	6	<0.5	89	30	21	<0.1	85	45	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP038	0-0.15	4/12/2009	Silty clay	JBS 2010	7	<0.5	77	-	49	<0.1	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP039	0-0.15	4/12/2009	Fill	JBS 2010	6	<0.5	32	23	35	<0.1	24	41	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP039	0.5-0.6	4/12/2009	Silty clay	JBS 2010	5	<0.5	27	-	18	<0.1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP40	0-0.15	4/12/2009	Fill	JBS 2010	<4	<0.5	160	30	12	<0.1	140	60	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC6 (duplicate of TP040)	0-0.15	4/12/2009	Fill	JBS 2010	<4	<0.5	160	29	11	<0.1	130	54	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP041	0-0.1	4/12/2009	Fill	JBS 2010	<4	<0.5	150	36	12	<0.1	140	61	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP041	0.2-0.3	4/12/2009	Fill	JBS 2010	5	<0.5	140	-	15	<0.1	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP042	0-0.1	4/12/2009	Fill	JBS 2010	7	<0.5	68	21	22	<0.1	53	32	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP043	0-0.15	4/12/2009	Fill	JBS 2010	<4	<0.5	140	26	8	<0.1	140	45	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP044	0-0.1	4/12/2009	Fill	JBS 2010	7	<0.5	18	19	32	<0.1	10	36	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP045	0-0.15	4/12/2009	Silty clay	JBS 2010	10	<0.5	26	-	39	<0.1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC5 (duplicate of TP045)	0-0.15	4/12/2009	Silty clay	JBS 2010	6	<0.5	18	-	30	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP046B	0-0.1	9/12/2009	Silty clay	JBS 2010	11	<0.5	13	-	54	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP047	0-0.1	4/12/2009	Silty clay	JBS 2010	9	<0.5	21	-	38	<0.1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP048	0-0.1	4/12/2009	Silty clay	JBS 2010	9	<0.5	16	-	36	<0.1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP049	0.4-0.6	4/12/2009	Silty clay	JBS 2010	9	<0.5	22	23	19	<0.1	33	48	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.2	0.1	0.2	0.3	-	0.4

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

						Metals & Metalloids								TPH					TRHs (NEPC 2013)							TPH Silica Gel			TRH Silica Gel			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)	C16-C34	C6-C10	C10-C16	C34-C40	C10-C40 (Sum of Total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	TPH C10 - C14 SG	TPH C15 - C28 SG	TPH C29 - C36 SG	TRH C10 - C16 SG	TRH C16 - C34 SG	TRH C34 - C40 SG	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil						3000	900	3600	240000	1500	730	6000	400000																																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																								310	NL						4	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																								480	NL						6	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																								NL	NL						9	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																								NL	NL						20	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																								260							3						230								
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)						160		660	190	1800		460	280																								370								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																			2500			6600		215	170							95	135	185			95								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																			1700			3300		215	170							75	135	165			180					1.4			
CRC Care B(a)P Guidance																																										67			
Kansas Department of Health and Environment (2002)																																													
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																			5000			10000																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																			3500	700	1000	10,000																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																												
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																									
TP049B	Stockpile	9/12/2009	Silty clay	JBS 2010	12	<0.5	29	-	1600	<0.1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP050	0-0.1	3/12/2009	Silty clay	JBS 2010	6	<0.5	20	-	25	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP051	0-0.1	3/12/2009	Silty clay	JBS 2010	7	<0.5	20	-	26	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP052	0-0.1	3/12/2009	Silty clay	JBS 2010	7	<0.5	20	-	48	<0.1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP053	0-0.1	3/12/2009	Silty clay	JBS 2010	8	<0.5	20	-	27	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP054	0-0.1	3/12/2009	Silty clay	JBS 2010	19	<0.5	23	-	23	<0.1	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP055	0-0.1	3/12/2009	Silty clay	JBS 2010	8	<0.5	19	-	34	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP056	0-0.1	3/12/2009	Fill	JBS 2010	9	<0.5	18	-	66	<0.1	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP057	0-0.1	3/12/2009	Silty clay	JBS 2010	8	<0.5	18	-	38	<0.1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP058	0-0.1	3/12/2009	Silty clay	JBS 2010	9	<0.5	19	-	34	<0.1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP059	0-0.15	3/12/2009	Silty clay	JBS 2010	8	<0.5	20	-	44	0.2	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP060	0-0.15	3/12/2009	Silty clay	JBS 2010	7	<0.5	20	-	36	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP061	0-0.15	3/12/2009	Silty clay	JBS 2010	7	<0.5	18	-	35	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC1 (duplicate of TP061)	0-0.15	3/12/2009	Silty clay	JBS 2010	6	<0.5	12	-	24	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP062	0-0.15	3/12/2009	Silty clay	JBS 2010	10	<0.5	16	-	56	<0.1	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP063	0-0.15	3/12/2009	Fill	JBS 2010	11	<0.5	20	41	74	0.2	12	300	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
M1 (Fragment fron TP063)	surface	3/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP063	0.2-0.3	3/12/2009	Fill	JBS 2010	12	<0.5	24	-	20	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP064	0-0.15	3/12/2009	Silty clay	JBS 2010	11	<0.5	19	-	24	<0.1	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP065	0-0.15	3/12/2009	Silty clay	JBS 2010	6	<0.5	18	-	32	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP066	0-0.15	3/12/2009	Silty clay	JBS 2010	8	<0.5	15	-	32	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP067	0-0.1	3/12/2009	Silty clay	JBS 2010	8	<0.5	15	-	56	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP068	0-0.1	3/12/2009	Silty clay	JBS 2010	7	<0.5	17	-	20	<0.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP069	0-0.15	3/12/2009	Fill	JBS 2010	7	<0.5	14	31	23	<0.1	11	59	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP069	0.5-0.6	3/12/2009	Fill	JBS 2010	6	<0.5	17	-	15	<0.1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP070	0-0.15	3/12/2009	Silty clay	JBS 2010	8	<0.5	20	-	56	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP071	0-0.1	3/12/2009	Silty clay	JBS 2010	9	<0.5	18	-	22	<0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP072	0-0.1	3/12/2009	Silty clay	JBS 2010	11	<0.5	22	-	29	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP073	0-0.1	3/12/2009	Silty clay	JBS 2010	9	<0.5	18	-	20	<0.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP074	0-0.1	3/12/2009	Silty clay	JBS 2010	7	<0.5	20	-	20	<0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP075	0-0.1	3/12/2009	Silty clay	JBS 2010	7	<0.5	20	-	30	<0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP076	0-0.1	3/12/2009	Silty clay	JBS 2010	5	<0.5	14	-	17	<0.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP077	0-0.15	3/12/2009	Silty clay	JBS 2010	12	<0.5	27	-	43	<0.1	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP078	0-0.15	3/12/2009	Silty clay	JBS 2010	10	<0.5	24	-	40	<0.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC3 (duplciate of TP078)	0-0.15	3/12/2009	Silty clay	JBS 2010	6	<0.5	15	-	21	<0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP079	0-0.15	3/12/2009	Silty clay	JBS 2010	10	<0.5	14	-	25	<0.1	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC2 (duplicate of TP080)	0-0.15	3/12/2009	Silty clay	JBS 2010	6	<0.5	13	-	24	0.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP080	0-0.15	3/12/2009	Silty clay	JBS 2010	7	<0.5	16	-	30	<0.1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111	0-0.1	3/12/2009	Fill	JBS 2010	8	<0.5	29	22	56	<0.1	15	95	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP111-F1 (Frgment from TP111)	surface	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA112	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA113	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA114	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA115	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA116	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA117	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA118	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA119	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA120	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA121	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA122	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA123	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA124	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA125	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA126	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA127	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA128	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA129	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA130	0-0.1	7/04/2010	Silty clay	JBS 2010	10	<0.5	18	30	180	<0.1	11	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA131	0-0.1	7/04/2010	Silty clay	JBS 2010	16	<0.5	25	87	130	<0.1	13	580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockpile Samples																																														
TP081	0.4-0.6	4/12/2009	Fill	JBS 2010	9	<0.5	18	32	210	<0.1	10	290	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.06	-	<0.2
TP082	0.4-0.6	4/12/2009	Fill	JBS 2010	8	<0.5	14	45	42	<0.1	9	150	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	0.2	0.2	-	0.4
SP83	0.4-0.6	4/12/2009	Fill	JBS 2010	<4	<0.5	5	4	6	<0.1	2	13	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

	Metals & Metalloids								TPH					TRHs (NEPC 2013)							TPH Silica Gel			TRH Silica Gel			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)	C16-C34	C6-C10	C10-C16	C34-C40	C10-C40 (Sum of Total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	TPH C10 - C14 SG	TPH C15 - C28 SG	TPH C29 - C36 SG	TRH C10 - C16 SG	TRH C16 - C34 SG	TRH C34 - C40 SG	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	3000	900	3600	240000	1500	730	6000	400000																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																			310	NL							4	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																			480	NL							6	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																			NL	NL							9	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																			NL	NL							20	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																			260								3						230								
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)	160		660	190	1800		460	280																									370							
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil														2500			6600		215	170							95	135	185				95								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil														1700			3300		215	170							75	135	165				180					1.4			
CRC Care B(a)P Guidance																																						67			
Kansas Department of Health and Environment (2002)																																									
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil														5000			10000																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil														3500	700	1000	10,000																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																									

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																																						
M2 (Fragment from SP83)	-	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP084	0.4-0.6	4/12/2009	Fill	JBS 2010	<4	<0.5	5	17	16	<0.1	4	54	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.06	-	<0.2
TP085	0.4-0.6	4/12/2009	Fill	JBS 2010	5	<0.5	17	25	21	<0.1	13	46	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
M4 (Fragment from TP085)	0.6	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP086	0-0.15	4/12/2009	Fill	JBS 2010	7	<0.5	30	49	35	<0.1	26	200	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP087	0.4-0.6	4/12/2009	Fill	JBS 2010	<4	<0.5	32	50	11	<0.1	63	60	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP088	0.4-0.6	4/12/2009	Fill	JBS 2010	9	<0.5	17	34	24	<0.1	26	65	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP089	0.4-0.6	4/12/2009	Fill	JBS 2010	9	<0.5	19	25	40	<0.1	17	46	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP090	0.4-0.6	3/12/2009	Fill	JBS 2010	10	<0.5	24	16	28	<0.1	5	34	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP091	0.4-0.6	3/12/2009	Fill	JBS 2010	7	<0.5	21	24	33	<0.1	12	48	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP092	0.4-0.6	3/12/2009	Fill	JBS 2010	7	<0.5	17	26	38	<0.1	10	67	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
SP093	0.4-0.6	4/12/2009	Fill	JBS 2010	<4	<0.5	6	5	13	<0.1	2	14	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	0.1	0.1	-	0.2
SP095	0.4-0.6	3/12/2009	Fill	JBS 2010	6	<0.5	8	31	42	<0.1	9	52	<25	<50	450	430	905	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	0.2	1	1.5	7	13	-	16
SP096	0.4-0.6	3/12/2009	Fill	JBS 2010	21	<0.5	19	38	18	<0.1	17	64	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP097	0.4-0.6	3/12/2009	Fill	JBS 2010	6	<0.5	13	19	36	<0.1	6	210	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
F1 (Fragment from TP097)	-	3/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP098	0.4-0.6	3/12/2009	Fill	JBS 2010	6	<0.5	24	14	29	<0.1	10	30	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP098a	0-0.15	3/12/2009	Fill	JBS 2010	7	<0.5	16	23	24	<0.1	10	47	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP099	0.4-0.6	3/12/2009	Fill	JBS 2010	6	<0.5	15	11	15	<0.1	4	13	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP100	0.4-0.6	3/12/2009	Fill	JBS 2010	6	<0.5	15	13	18	<0.1	5	24	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
SP101	0.4-0.6	3/12/2009	Fill	JBS 2010	9	<0.5	20	10	16	<0.1	3	10	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
SP102	0.4-0.6	3/12/2009	Fill	JBS 2010	5	<0.5	18	10	17	<0.1	4	15	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP103	0.4-0.6	3/12/2009	Fill	JBS 2010	5	<0.5	16	-	16	<0.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104	0.4-0.6	3/12/2009	Fill	JBS 2010	<4	<0.5	3	4	20	<0.1	2	25	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP105	0.4-0.6	3/12/2009	Fill	JBS 2010	4	<0.5	12	15	38	<0.1	6	290	<25	<50	460	640	1125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
TP110	0.4-0.6	3/12/2009	Fill	JBS 2010	9	<0.5	6	18	41	<0.1	3	66	<25	<50	<100	<100	<250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2
WSP 2020																																											
In-situ Soil Samples																																											
MW01_0.5	0.5	22/04/2020	Fill - Sandy clay	WSP 2020	14	<0.4	17	27	21	<0.1	7.6	42	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
MW01_3.0	3	22/04/2020	Natural - Clayey sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02_0.0	0	22/04/2020	Natural - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02_4.0	4	22/04/2020	Natural - Shale	WSP 2020	7.1	<0.4	12	42	15	<0.1	18	57	-	-	-	-	-	<100	<20	<50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
MW02_6.0	6	22/04/2020	Natural - Shale	WSP 2020	21	<0.4	16	50	17	<0.1	29	98	-	-	-	-	-	<100	<20	<50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
MW03_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03_1.0	1	22/04/2020	Natural - Silty clay	WSP 2020	7.5	<0.4	21	22	19	<0.1	11	36	-	-	-	-	-	<100	<20	<50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
MW03_2.0	2	22/04/2020	Natural - Silty clay	WSP 2020	6.9	<0.4	14	19	12	<0.1	<5	16	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
TP01_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	13	<0.4	25	27	16	<0.1	<5	21	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
TP02_0.5	0.5	22/04/2020	Natural - Sandy clay	WSP 2020	12	<0.4	29	21	21	<0.1	11	34	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
TP03_0.8	0.8	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.1	0.1	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.6	0.6	22/04/2020	Natural - Clay	WSP 2020	12	<0.4	29	24	19	<0.1	9.8	36	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
TPS1_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS2_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS3_0.5	0.5	23/04/2020	Fill - Silty gravel	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS4_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS5_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS6_0.5	0.5	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS7_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS8_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockpile Samples																																											
SPA1_0.1	0.1	24/04/2020	Surface - Silty sand	WSP 2020	9.2	<0.4	27	42	32	<0.1	35	95	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPA1_0.5	0.5	24/04/2020	Fill - Silty sand	WSP 2020	2.9	<0.4	13	27	13	<0.1	22	61	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPA1_1.0	1	24/04/2020	Fill - Silty sand	WSP 2020	3.7	<0.4	13	32	15	<0.1	18	71	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPA1_2.0	2	24/04/2020	Natural - Silty clay	WSP 2020	8.8	<0.4	23	22	18	<0.1	11	40	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPA2_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	7	<0.4	22	52	27	<0.1	36	97	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPA2_2.0	2	24/04/2020	Natural - Clay	WSP 2020	8.9	<0.4	22	20	21	<0.1	13	37	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPA2_PACM	-	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPB1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	4.5	<0.4	53	45	15	<0.1	60	79	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPB1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	7.6	<0.4	20	25	22	<0.1	10	43	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPC1_0.5	0.5	24/04/2020	Fill - Silty sand	WSP 2020	13	<0.4	36	37	77	<0.1	19	240	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SPC1_2.0	2	24/04/2020	Natural - Silty clay	WSP 2020	5.6	<0.4	12	19	21	<0.1	7	41	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
SP83_0.1	0.1	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP83_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP84_0.3	0.3	23/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

	Metals & Metalloids								TPH					TRHs (NEPC 2013)							TPH Silica Gel			TRH Silica Gel			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)	C16-C34	C6-C10	C10-C16	C34-C40	C10-C40 (Sum of Total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	TPH C10 - C14 SG	TPH C15 - C28 SG	TPH C29 - C36 SG	TRH C10 - C16 SG	TRH C16 - C34 SG	TRH C34 - C40 SG	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil	3000	900	3600	240000	1500	730	6000	400000																															
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																			310	NL							4	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																			480	NL							6	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																			NL	NL							9	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																			NL	NL							20	NL	NL				NL	NL							
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																			260								3						230								
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)	160		660	190	1800		460	280																									370							
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil														2500			6600		215	170							95	135	185			95								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil														1700			3300		215	170							75	135	165			180					1.4			
CRC Care B(a)P Guidance																																					67			
Kansas Department of Health and Environment (2002)																																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil														5000			10000																							
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil														3500	700	1000	10,000																							
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																								

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																																					
SP84_0.9	0.9	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP88_0.1 (A)	0.1	24/04/2020	Fill - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP88_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
SP105_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
SP105_1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-
TP14_0.1	0.1	24/04/2020	Fill - Gravelly sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP022_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.0	0	22/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	11	<0.4	22	25	13	<0.1	13	33	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_1_0.1	0.1	24/04/2020	-	WSP 2020	11	<0.4	26	18	33	<0.1	10	80	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_1_0.5	0.5	24/04/2020	-	WSP 2020	8.4	<0.4	20	17	17	<0.1	9.6	34	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_1_1.0	1	24/04/2020	-	WSP 2020	8.7	<0.4	21	20	19	<0.1	11	48	-	-	-	-	-	<100	< 20	< 50	<100	< 100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_2_0.1	0.1	24/04/2020	-	WSP 2020	5.1	0.5	11	21	41	<0.1	7.7	110	-	-	-	-	-	120	< 20	< 50	<100	120	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_2_0.5	0.5	24/04/2020	-	WSP 2020	10	<0.4	20	19	14	<0.1	6.3	26	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_2_1.0	1	24/04/2020	-	WSP 2020	9.7	<0.4	23	22	15	<0.1	6.6	27	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_3_0.1	0.1	24/04/2020	-	WSP 2020	11	<0.4	18	18	15	<0.1	5.8	33	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_3_0.5	0.5	24/04/2020	-	WSP 2020	20	<0.4	17	28	12	<0.1	7.8	44	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_4_0.1	0.1	24/04/2020	-	WSP 2020	9.5	<0.4	17	18	14	<0.1	6.6	34	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_4_0.5	0.5	24/04/2020	-	WSP 2020	15	<0.4	18	22	15	<0.1	6.9	46	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_5_0.5	0.5	24/04/2020	-	WSP 2020	16	<0.4	16	31	10	<0.1	7.1	47	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F1_6_0.5	0.5	24/04/2020	-	WSP 2020	9.8	<0.4	23	25	14	<0.1	6.3	29	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	9.5	<0.4	39	41	62	<0.1	36	160	-	-	-	-	-	170	< 20	< 50	<100	170	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	7.3	<0.4	21	30	19	<0.1	<5	25	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	6.9	<0.4	29	43	53	<0.1	21	280	-	-	-	-	-	140	< 20	< 50	<100	140	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_2_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	14	<0.4	35	34	25	<0.1	22	93	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	15	<0.4	38	31	33	<0.1	23	82	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_2_1.0	1	24/04/2020	Natural - Clay	WSP 2020	6	<0.4	19	24	13	<0.1	6.7	35	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	5	<0.4	38	30	51	<0.1	28	200	-	-	-	-	-	170	< 20	< 50	<100	170	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_3_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	12	<0.4	29	28	34	<0.1	20	140	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	9	<0.4	40	51	55	<0.1	25	350	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_3_1.0	1	24/04/2020	Natural - Clay	WSP 2020	9.2	<0.4	32	34	38	<0.1	19	200	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_4_0.1	0.1	24/04/2020	Fill - Silty clay	WSP 2020	5.7	<0.4	19	34	45	<0.1	14	200	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_4_0.3	0.3	24/04/2020	Fill - Silty clay	WSP 2020	6.9	<0.4	18	26	35	<0.1	11	91	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_4_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	12	0.7	56	110	83	<0.1	38	560	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_4_1.0	1	24/04/2020	Natural - Clay	WSP 2020	9.1	<0.4	22	28	32	<0.1	13	100	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_5_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	5.4	<0.4	23	40	360	<0.1	15	310	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	14	0.6	49	92	76	<0.1	29	480	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_6_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	13	<0.4	33	46	71	<0.1	19	400	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_6_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	9.2	<0.4	28	39	27	<0.1	7.4	48	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F2_7_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	14	<0.4	38	38	33	<0.1	13	55	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	11	<0.4	26	20	43	<0.1	12	140	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_1_0.5	0.5	24/04/2020	Natural - Silty clay	WSP 2020	11	<0.4	17	26	18	<0.1	6	50	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_1_1.0	1	24/04/2020	Natural - sandstone	WSP 2020	6.6	<0.4	9.1	26	19	<0.1	9.7	55	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	7.3	<0.4	41	42	60	<0.1	37	190	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	9.3	<0.4	15	32	14	<0.1	6.9	37	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	10	<0.4	28	27	49	<0.1	15	260	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	23	<0.4	19	55	19	<0.1	7.2	54	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_4_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	10	<0.4	25	23	38	<0.1	12	120	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_4_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	5.9	<0.4	12	16	13	<0.1	<5	20	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
F3_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	4.5	<0.4	10	19	12	<0.1	<5	19	-	-	-	-	-	<100	< 20	< 50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
JBS&G 2021																																									
Stockpile Samples																																									
JSP01_01	-	26/10/2021	-	JBS&G 2021	8.8	<0.4	24	29	23	<0.1	9.6	70	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
JSP02_01	-	26/10/2021	-	JBS&G 2021	11	<0.4	28	33	52	<0.1	9.9	170	<20	<20	<50	76	76	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP02_01	-	27/10/2021	-	JBS&G 2021	5.5	<0.4	13	49	840	0.6	5.8	340	<20	<20	66	57	123	110	<20	<50	<100	110	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP02_02	-	27/10/2021	-	JBS&G 2021	23	<0.4	27	40	170	<0.1	16	200	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC02 (dupicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	25	<0.4	25	44	170	<0.1	15	230	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA02 (triplicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	15	<0.4	22	39	90	<0.1	13	290	<25	<50	<100	<100	<50	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	0.1	<0.05	-	<0.1
SP05_01	-	27/10/2021	-	JBS&G 2021	8.3	<0.4	22	32	20	<0.1	14	150	<20	<20	<50	59	59	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

					Metals & Metalloids								TPH					TRHs (NEPC 2013)							TPH Silica Gel			TRH Silica Gel			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)	C16-C34	C6-C10	C10-C16	C34-C40	C10-C40 (Sum of Total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	TPH C10 - C14 SG	TPH C15 - C28 SG	TPH C29 - C36 SG	TRH C10 - C16 SG	TRH C16 - C34 SG	TRH C34 - C40 SG	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil					3000	900	3600	240000	1500	730	6000	400000																																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																							310	NL							4	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																							480	NL							6	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																							NL	NL							9	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																							NL	NL							20	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																							260								3					230									
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)					160		660	190	1800		460	280																								370								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																		2500			6600		215	170							95	135	185			95								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																		1700			3300		215	170							75	135	165			180					1.4		
CRC Care B(a)P Guidance																																									67		
Kansas Department of Health and Environment (2002)																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																		5000			10000																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																		3500	700	1000	10,000																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																											
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																								
SP05_02	-	27/10/2021	-	JBS&G 2021	10	<0.4	21	28	100	<0.1	17	240	<20	<20	<50	70	70	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP06_01	-	27/10/2021	-	JBS&G 2021	5.4	<0.4	10	15	13	<0.1	<5	27	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP06_02	-	27/10/2021	-	JBS&G 2021	12	<0.4	27	32	53	<0.1	15	180	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP06_03	-	27/10/2021	-	JBS&G 2021	7.5	<0.4	25	33	26	<0.1	7.6	90	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP06_04	-	27/10/2021	-	JBS&G 2021	8.8	<0.4	34	43	54	<0.1	17	270	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP06_05	-	27/10/2021	-	JBS&G 2021	7.5	<0.4	30	40	34	<0.1	21	190	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP06_06	-	27/10/2021	-	JBS&G 2021	7.2	<0.4	25	24	25	<0.1	16	95	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP14_01	-	26/10/2021	-	JBS&G 2021	<2	<0.4	6.6	<5	10	<0.1	<5	15	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP18_01	-	26/10/2021	-	JBS&G 2021	13	<0.4	19	35	37	<0.1	20	68	<20	<40	590	180	770	890	<20	<100	290	1180	<20	<100	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	1.2	0.7	2.4	5.7	9.8	6.8	5
SP18_02	-	26/10/2021	-	JBS&G 2021	6.3	<0.4	14	37	24	<0.1	20	78	<20	<100	660	500	1160	1000	<20	<250	<500	1000	<20	<250	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	0.8	3.3	11	19	15	9.8
SP18a_01	-	26/10/2021	-	JBS&G 2021	13	<0.4	21	20	25	<0.1	7.9	100	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP21_01	-	26/10/2021	-	JBS&G 2021	8.3	<0.4	24	11	24	<0.1	8.2	33	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP21_02	-	26/10/2021	-	JBS&G 2021	4.9	<0.4	12	27	15	<0.1	13	63	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP21_03	-	26/10/2021	-	JBS&G 2021	10	<0.4	20	24	18	<0.1	10	42	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP21_04	-	26/10/2021	-	JBS&G 2021	8.2	<0.4	18	22	22	<0.1	11	45	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP23_01	-	26/10/2021	-	JBS&G 2021	12	<0.4	27	47	33	<0.1	23	98	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SP23_02	-	26/10/2021	-	JBS&G 2021	9.8	<0.4	24	24	18	<0.1	8.7	32	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
In-situ Soil Samples																																												
SS02_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	9.8	<0.4	44	16	20	<0.1	21	33	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS03_01	0-0.1	26/10/2021	Fill - Clay	JBS&G 2021	6.7	<0.4	30	30	26	<0.1	9.2	68	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC01 (duplicate of SS03_01)	0-0.1	26/10/2021	-	JBS&G 2021	4.7	<0.4	28	23	24	0.1	8	72	<20	<20	<50	62	62	<100	<25	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA01 (triplicate of SS03_01)	0-0.1	26/10/2021	-	JBS&G 2021	6	<0.4	30	22	21	<0.1	9	55	<25	<50	<100	<100	<50	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.1
SS04_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	5.2	<0.4	19	39	230	0.1	13	220	<20	<20	280	240	520	460	<20	<50	<100	460	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	0.7	3.8	6.2	3.7	3.2
SS05_01	0-0.1	26/10/2021	Fill - Clay	JBS&G 2021	5.3	<0.4	23	33	14	<0.1	22	90	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS09_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	8.9	<0.4	28	32	42	<0.1	15	150	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS10_01	0-0.1	27/10/2021	Fill Silty clay	JBS&G 2021	7.5	<0.4	24	23	19	<0.1	10	41	<20	<21	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS11_01	0-0.1	27/10/2021	Fill - Silty clay	JBS&G 2021	17	<0.4	27	23	44	<0.1	15	75	<20	<22	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS13_01	0-0.1	27/10/2021	Fill - Silty clay	JBS&G 2021	8.1	<0.4	43	26	41	<0.1	34	240	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS14_01	0-0.1	26/10/2021	Natural - Clay	JBS&G 2021	7.2	<0.4	15	13	21	<0.1	7.6	26	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS22_01	0-0.1	26/10/2021	-	JBS&G 2021	13	<0.4	31	35	24	<0.1	12	47	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SS22_02	0-0.1	26/10/2021	-	JBS&G 2021	8	<0.4	24	25	27	<0.1	32	63	<20	<20	<50	<50	<50	<100	<20	<50	<100	<100	<20	<50	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.2	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Douglas Partners 2021																																											
In-situ Soil Samples																																											
TP1	0.1-0.2	28/10/2021	Top soil - Silty clay	DP 2021	6	<0.4	16	15	17	<0.1	7	26	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH2	0.2-0.3	29/10/2021	Fill - Gravelly sand	DP 2021	<4	<0.4	7	55	2	<0.1	59	34	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH2	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	<4	<0.4	8	20	10	<0.1	4	22	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH3	0.2-0.3	28/10/2021	Fill - Gravelly sand	DP 2021	<4	<0.4	15	15	11	<0.1	8	26	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP4	0.1-0.15	28/10/2021	Top soil - Silty clay	DP 2021	7	<0.4	16	16	19	<0.1	7	26	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP4	0.5-0.6	28/10/2021	Natural - Clay	DP 2021	<4	<0.4	11	23	8	<0.1	5	25	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH5	0.2-0.3	28/10/2021	Fill - Gravelly sand	DP 2021	<4	<0.4	17	120	14	0.2	17	39	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH6	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	6	<0.4	17	21	12	<0.1	13	30	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH6	0.9-1.0	29/10/2021	Natural - Clay	DP 2021	6	<0.4	14	19	12	<0.1	7	21	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH6	2.9-3.0	29/10/2021	Natural - Clay	DP 2021	<4	<0.4	7	2	13	<0.1	6	40	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH7	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	6	<0.4	16	19	13	<0.1	13	27	<25	<50	120	<100	120	<100	<25	80	<100	80	<25	80	<50	<100	<100	56	<100	<100	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BD3JH/20211029 (duplicate pair BH7)	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	7	<1	16	22	24	<0.1	23	34	<10	<50	<100	<100	<100	<100	<10	<50	<100	<50	<10	<50	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-
BH7	0.9-1.0	29/10/2021	Fill - Clay	DP 2021	<4	<0.4	10	21	8	<0.1	7	28	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH7	2.4-2.5	29/10/2021	Natural - Siltstone gravel	DP 2021	5	<0.4	8	44	18	<0.1	22	86	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH8	0.2-0.3	29/10/2021	Fill - Gravelly sand	DP 2021	<4	<0.4	6	74	2	<0.1	70	28	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP9	0.1-0.15	29/10/2021	Fill - Gravelly clay	DP 2021	5	<0.4	20	66	9	<0.1	45	48	<25	<50	<100	220	<100	180	<25	<50	290	470	<25	<50	<50	<100	<100	<50	<100	140	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	-
TP9	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	<4	<0.4	10	34	13	<0.1	12	58	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP9	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP9	3.0-3.1	29/10/2021	Natural - Clay	DP 2021	5	<0.4	12	34	120	0.2	7	98	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	0.4	0.3	0.5	-
TP10	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	<4	<0.4	12	29	14	<0.1	12	65	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP10	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	2.5-2.6	29/10/2021	Natural - Clay	DP 2021	5	<0.4	16	17	11	<0.1	5	15	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP11	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	<4	<0.4	11	43	22	<0.1	13	69	<25	<50	130	330	460	350	<25	<50	370	720	<25	<50	<50	<100	180	<50	180	260	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.2	0.2	<0.1	1.4	2	-
TP11	0.5-0.6	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	3.0-3.1	29/10/2021	Fill - Clay	DP 2021	5	<0.4	10	24	47	<0.1	13	60	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	0.08	<0.2	-
TP12	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	4	<0.4	14	33	15	<0.1	14	43	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	0.2	0.3	0.4	-
TP12	0.5-0.6	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	7	<0.4	16	25	16	<0.1	9	53	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

					Metals & Metalloids								TPH					TRHs (NEPC 2013)							TPH Silica Gel			TRH Silica Gel			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)	C16-C34	C6-C10	C10-C16	C34-C40	C10-C40 (Sum of Total)	F1 (C6-C10 minus BTEX)	F2 (C10-C16 less Naphthalene)	TPH C10 - C14 SG	TPH C15 - C28 SG	TPH C29 - C36 SG	TRH C10 - C16 SG	TRH C16 - C34 SG	TRH C34 - C40 SG	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b+j)fluoranthene	Benzo(b+k)fluoranthene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg							mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil					3000	900	3600	240000	1500	730	6000	400000																																	
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																							310	NL							4	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																							480	NL							6	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																							NL	NL							9	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																							NL	NL							20	NL	NL			NL	NL								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																							260								3					230									
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)					160		660	190	1800		460	280																								370								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																		2500			6600		215	170							95	135	185			95								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																		1700			3300		215	170							75	135	165			180					1.4		
CRC Care B(a)P Guidance																																									67		
Kansas Department of Health and Environment (2002)																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																		5000			10000																							
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																		3500	700	1000	10,000																							
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																										
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																							
TP12	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	3.0-3.1	29/10/2021	Fill - Clay	DP 2021	5	<0.4	7	20	18	<0.1	14	45	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP12	4.0-4.1	29/10/2021	Natural - Clay	DP 2021	<4	<0.4	11	17	12	<0.1	10	21	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP13	0.1-0.2	28/10/2021	Fill - Clay	DP 2021	<4	<0.4	7	47	14	<0.1	16	41	<25	<50	150	250	400	310	<25	<50	230	540	<25	<50	<50	250	360	<50	510	360	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.5	0.6	2.2	3.3	4.6	-
TP13	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	4	<0.4	15	31	11	<0.1	10	38	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BD1/281021 (triplicate pair TP13)	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	7	<1	19	36	14	<0.1	11	44	<10	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
TP14	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	<4	<0.4	16	46	8	<0.1	40	30	<25	<50	<100	180	180	140	<25	<50	240	390	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	-
TP15	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	7	<0.4	9	40	13	<0.1	35	110	<25	<50	190	<100	190	130	<25	91	<100	220	<25	91	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP15	0.5-0.6	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15	1.0-1.1	28/10/2021	Fill - Clay	DP 2021	7	<0.4	23	21	60	<0.1	5	120	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	-
TP15	2.0-2.1	28/10/2021	Natural - Clay	DP 2021	<4	<0.4	11	10	12	<0.1	15	59	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BD2/281021 (triplicate pair TP15)	2.0-2.1	28/10/2021	Natural - Clay	DP 2021	<5	<1	11	12	21	0.2	15	67	<10	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
TP16	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	<4	<0.4	11	97	10	<0.1	16	40	<25	<50	210	530	740	560	<25	<50	570	1100	<25	<50	<50	150	430	<50	440	500	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.7	0.8	1.8	3.6	4.8	-
TP16	0.5-0.6	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	1.0-1.1	28/10/2021	Fill - Gravelly clay	DP 2021	<4	<0.4	5	24	11	<0.1	5	42	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP16	2.0-2.1	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16A	2.4-2.5	29/10/2021	Fill - Gravelly clay	DP 2021	6	<0.4	9	23	14	<0.1	6	71	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	-	-	-	-	-	-	-
BH16A	3.1-3.2	29/10/2021	Natural - Clay	DP 2021	11	<0.4	15	19	13	<0.1	4	24	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	-	-	-	-	-	-	-
TP17*	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	4	<0.4	8	38	14	<0.1	10	47	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP17	0.5-0.6	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	1.0-1.1	28/10/2021	Fill - Clay	DP 2021	9	<0.4	16	23	16	<0.1	13	46	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP17	2.0-2.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18	0.1-0.2	29/10/2021	Top soil - Silty clay	DP 2021	6	<0.4	16	21	22	<0.1	10	45	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP19	0.1-0.2	29/10/2021	Top soil - Silty clay	DP 2021	6	<0.4	14	24	19	<0.1	6	42	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP19	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	5	<0.4	14	22	23	<0.1	4	21	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BD6/291021 (duplicate pair TP19)	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	5	<0.4	15	17	15	<0.1	5	26	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP20	0.1-0.15	29/10/2021	Top soil - Silty clay	DP 2021	<4	<0.4	14	39	62	<0.1	17	120	<25	<50	120	210	240	260	<25	<50	180	440	<25	<50	<50	<100	300	<50	250	450	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.3	0.8	1.2	2	-
BH21	0.2-0.3	28/10/2021	Fill - Gravelly clay	DP 2021	<4	<0.4	10	63	4	0.2	39	34	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH22	0.1-0.2	28/10/2021	Fill - Gravelly sand	DP 2021	<4	<0.4	31	40	9	<0.1	38	73	<25	<50	260	430	690	560	<25	<50	360	920	<25	<50	<50	240	510	<50	600	560	<0.2	<0.5	<1	<1	<2	<3	<0.1	-	-	-	-	-	-	-
BH23	0.1-0.2	28/10/2021	Fill - Sand	DP 2021	6	<0.4	15	69	14	<0.1	24	54	<25	<50	160	350	510	400	<25	<50	390	800	<25	<50	<50	<100	350	<50	320	500	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.2	0.2	0.7	0.89	1	-
BH23	0.5-0.6	28/10/2021	Natural - Clay	DP 2021	11	<0.4	15	24	15	<0.1	6	25	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH24	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	<4	<0.4	13	26	18	<0.1	7	28	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	<0.2	-
BD1JH/20211029 (triplicate pair BH24)	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	10	<1	17	29	21	<0.1	10	37	<10	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
BH24	0.9-1.0	29/10/2021	Fill - Clay	DP 2021	9	<0.4	17	24	13	<0.1	4	15	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH24	1.0-1.2	29/10/2021	Natural - Clay	DP 2021	6	<0.4	12	25	13	<0.1	5	22	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH25	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	6	<0.4	15	24	10	<0.1	4	18	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH25	0.9-1.0	29/10/2021	Natural - Clay	DP 2021	5	<0.4	11	20	10	<0.1	3	14	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP26	0.1-0.2	28/10/2021	Fill - Gravelly sand	DP 2021	<4	<0.4	16	31	17	<0.1	22	36	<25	<50	110	300	410	320	<25	<50	360	680	<25	<50	<50	<100	380	<50	320	540	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.5	0.3	0.6	0.99	1	-
TP26	0.5-0.6	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	<4	<0.4	8	17	9	<0.1	4	24	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
TP26	1.5-1.6	28/10/2021	Natural - Clay	DP 2021	<4	<0.4	9	15	7	<0.1	4	18	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BD4/281021 (duplicate pair BH26)	1.5-1.6	28/10/2021	Natural - Clay	DP 2021	<4	<0.4	9	17	7	<0.1	3	18	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH27	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	<4	<0.4	15	8	5	<0.1	5	21	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BD2JH/202111029 (duplicate pair BH27)	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	8	<0.4	17	21	16	<0.1	7	38	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
BH27	1.4-1.5	29/10/2021	Natural - Clay	DP 2021	10	<0.4	15	24	14	<0.1	5	29	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.2	-
SS1	Surface	27/10/2021	Fill - Sand	DP 2021	<4	<0.4	15	44	8	<0.1	58	39	<25	<50	<100	<100	<100	<100	<25	<50	<100	<50	<25	<50	-	-	-	-	-	-	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	-
SS2	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS3	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS4	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS5*	Surface	27/10/2021	Fill - Sand	DP 2021	<4	<0.4	17	64	21	<0.1	18	53	<25	<50	220	450	670	520	<25	<50	470	980	25	<50	<50	150	490	<50	480	660	<0.2	<0.5	<1	<1	<2	<3	<0.1	<0.1	0.3	0.4	1.4	2.1	3	-
SS6	Surface	27/10/2021	Fill - Sand	DP 2021	<4	<0.4	23	95	14	<0.1	10	47	<25	880	9400	550	10,830	7700	25	2900	640	11000	<25	<50	830	4700	430	1400	4300	560	<0.2	<0.5	<1	<1	<2	<3	0.2	0.1	0.4	0.4	1.3	2	3	-

* Triplicate analysis undertaken by laboratory for metals on sample. The highest concentration recorded has been summarised in this table.

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

| | | | | | PAH | | | | | | | | | | Organochlorine Pesticides | | | | | | | | | |

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					Chlorinated Alkanes											Chlorinated Alkenes											Polychlorinated Biphenyls								MAH									
					1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																7											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																											
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																											
CRC Care B(a)P Guidance																																											
Kansas Department of Health and Environment (2002)																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																											
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																							
JBS 2010																																											
In-situ Soil Samples																																											
TP1	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP002	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP003	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC4 (duplicate of TP003)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP004	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP005	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP006	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP007	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP008	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP009	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP010	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP011	0-0.15	4/12/2009	Silty clay	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
QC7 (duplicate of TP011)	0-0.15	4/12/2009	Silty clay	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP012	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP013	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP014	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
M3 (fragment from TP014)	surface	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M3 (soil under M3)	0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP015	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP017	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP018	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC9 (duplucate of TP018)	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP019	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP020	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP021	0-0.15	4/12/2009	Silty clay	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
F1 (Fragment from TP022)	surface	9/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FS1 (soil under F1)	0.1	9/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP022B	0-0.1	9/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP023	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP024B	0-0.1	9/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP025	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP026	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP027	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP028	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP029	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP029	0.5-0.7	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP030	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP031	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP032	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP032	0.3-0.4	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP033	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP034	0-0.1	4/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP035	0-0.1	4/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP035	1.6-1.8	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP036	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP037	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP038	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP039	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP039	0.5-0.6	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP40	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
QC6 (duplicate of TP040)	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP041	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP041	0.2-0.3	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP042	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP043	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP044	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP045	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC5 (duplicate of TP045)	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP046B	0-0.1	9/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP047	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP048	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP049	0.4-0.6	4/12/2009	Silty clay	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

					Chlorinated Alkanes											Chlorinated Alkenes											Polychlorinated Biphenyls								MAH									
					1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																7											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																											
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																											
CRC Care B(a)P Guidance																																											
Kansas Department of Health and Environment (2002)																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																											
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																							
TP049B	Stockpile	9/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP050	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP051	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP052	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP053	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP054	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP055	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP056	0-0.1	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP057	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP058	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP059	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP060	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP061	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC1 (duplicate of TP061)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP062	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP063	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
M1 (Fragment fron TP063)	surface	3/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP063	0.2-0.3	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP064	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP065	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP066	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP067	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP068	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP069	0-0.15	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP069	0.5-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP070	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP071	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP072	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP073	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP074	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP075	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP076	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP077	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP078	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC3 (duplciate of TP078)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP079	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC2 (duplicate of TP080)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP080	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111	0-0.1	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP111-F1 (Frgment from TP111)	surface	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA112	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA113	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA114	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA115	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA116	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA117	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA118	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA119	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA120	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA121	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA122	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA123	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA124	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA125	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA126	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA127	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA128	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA129	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA130	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA131	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockpile Samples																																												
TP081	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
TP082	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-
SP83	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

	Chlorinated Alkanes										
	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Trichlorofluoromethane
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m											
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil											
CRC Care B(a)P Guidance											
Kansas Department of Health and Environment (2002)											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil											

	Chlorinated Alkenes									
	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m											
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil											
CRC Care B(a)P Guidance											
Kansas Department of Health and Environment (2002)											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil											

	Polychlorinated Biphenyls							
	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
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil								7
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m								
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil								
CRC Care B(a)P Guidance								
Kansas Department of Health and Environment (2002)								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil								

	MAH									
	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m										
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil										
CRC Care B(a)P Guidance										
Kansas Department of Health and Environment (2002)										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil										

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference	1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
M2 (Fragment from SP83)	-	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP084	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP085	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
M4 (Fragment from TP085)	0.6	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP086	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP087	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP088	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP089	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP090	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP091	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP092	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SP093	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
SP095	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
SP096	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP097	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
F1 (Fragment from TP097)	-	3/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP098	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP098a	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP099	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
TP100	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
SP101	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
SP102	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP103	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP105	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
TP110	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.7	-	-	-	-	-	-	-	-	-	-	-
WSP 2020																																													
In-situ Soil Samples																																												
MW01_0.5	0.5	22/04/2020	Fill - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW01_3.0	3	22/04/2020	Natural - Clayey sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02_0.0	0	22/04/2020	Natural - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02_4.0	4	22/04/2020	Natural - Shale	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW02_6.0	6	22/04/2020	Natural - Shale	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW03_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03_1.0	1	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
MW03_2.0	2	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP01_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP02_0.5	0.5	22/04/2020	Natural - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
TP03_0.8	0.8	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.1	0.1	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.6	0.6	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
TPS1_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS2_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS3_0.5	0.5	23/04/2020	Fill - Silty gravel	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS4_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS5_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS6_0.5	0.5	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS7_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS8_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockpile Samples																																												
SPA1_0.1	0.1	24/04/2020	Surface - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPA1_0.5	0.5	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPA1_1.0	1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPA1_2.0	2	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPA2_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPA2_2.0	2	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPA2_PACM	-	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPB1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPB1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPC1_0.5	0.5	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SPC1_2.0	2	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
SP83_0.1	0.1	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP83_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP84_0.3	0.3	23/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

					Chlorinated Alkanes											Chlorinated Alkenes											Polychlorinated Biphenyls								MAH									
					1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																7											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay	0-<1m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay	1-<2m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay	2-<4m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay	4+m																																									
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand	0-<1m																																									
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																										
CRC Care B(a)P Guidance																																										
Kansas Department of Health and Environment (2002)																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																										
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																							
SP84_0.9	0.9	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP88_0.1 (A)	0.1	24/04/2020	Fill - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP88_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.1	0.1	24/04/2020	Fill - Gravelly sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP022_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.0	0	22/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_1_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_1_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_1_1.0	1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_2_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_2_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_2_1.0	1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_3_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_3_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_4_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_4_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_5_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F1_6_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_2_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_2_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_3_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_3_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_4_0.1	0.1	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_4_0.3	0.3	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_4_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_4_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_5_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_6_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_6_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F2_7_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_1_0.5	0.5	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_1_1.0	1	24/04/2020	Natural - sandstone	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_4_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_4_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
F3_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
JBS&G 2021																																											
Stockpile Samples																																										
JSP01_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
JSP02_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP02_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP02_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
QC02 (dupicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
QA02 (triplicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP05_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

					Chlorinated Alkanes											Chlorinated Alkenes											Polychlorinated Biphenyls								MAH									
					1,2-dibromo-3-chloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	2,2-dichloropropane	Bromochloromethane	Carbon tetrachloride	Chloroethane	Chloromethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,1-dichloroethene	1,1-dichloropropene	2-chlorotoluene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Trichloroethene	Vinyl Chloride	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Sum of total)	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	n-butylbenzene	n-propylbenzene	p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Bromobenzene	Isopropylbenzene
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																																7											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																																											
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																											
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																											
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																											
CRC Care B(a)P Guidance																																											
Kansas Department of Health and Environment (2002)																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																											
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																											
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																											
Field ID	**Sample Depth**	**Sample Date**	**Soil Description**	**Report Reference**																																								
SP05_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP06_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP06_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP06_03	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP06_04	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP06_05	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP06_06	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP14_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
SP18_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
SP18_02	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP18a_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP21_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP21_02	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP21_03	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP21_04	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP23_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SP23_02	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
In-situ Soil Samples																																											
SS02_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS03_01	0-0.1	26/10/2021	Fill - Clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01 (duplicate of SS03_01)	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA01 (triplicate of SS03_01)	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS04_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-
SS05_01	0-0.1	26/10/2021	Fill - Clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS09_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SS10_01	0-0.1	27/10/2021	Fill Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SS11_01	0-0.1	27/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS13_01	0-0.1	27/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SS14_01	0-0.1	26/10/2021	Natural - Clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS22_01	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-
SS22_02	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Douglas Partners 2021																																											
In-situ Soil Samples																																											
TP1	0.1-0.2	28/10/2021	Top soil - Silty clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	0.2-0.3	29/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH2	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3	0.2-0.3	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4	0.1-0.15	28/10/2021	Top soil - Silty clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP4	0.5-0.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5	0.2-0.3	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6	0.9-1.0	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6	2.9-3.0	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD3JH/20211029 (duplicate pair BH7)	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7	0.9-1.0	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7	2.4-2.5	29/10/2021	Natural - Siltstone gravel	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH8	0.2-0.3	29/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP9	0.1-0.15	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP9	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP9	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP9	3.0-3.1	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP10	2.5-2.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	0.5-0.6	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	3.0-3.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	0.5-0.6	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

| | | |

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| | | | | | Miscellaneous Hydrocarbons | | | | Chlorinated Benzenes | | | | | | | Trihalomethanes | | | | Organophosphorus Pesticides | | | | | | |

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	Miscellaneous Hydrocarbons				Chlorinated Benzenes							Trihalomethanes				Organophosphorus Pesticides																							
	1,2-dibromoethane	Bromomethane	Cyclohexane	Dibromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Azinophos methyl	Bolstar (Sulprofos)	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
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil											80								2000																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																								
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																								
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																								
CRC Care B(a)P Guidance																																								
Kansas Department of Health and Environment (2002)																																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																								
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																								

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																																						
M2 (Fragment from SP83)	-	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP084	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP085	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M4 (Fragment from TP085)	0.6	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP086	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP087	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP088	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP089	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP090	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP091	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP092	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP093	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP095	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP096	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP097	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1 (Fragment from TP097)	-	3/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP098	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP098a	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP099	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP100	0.4-0.6	3/12/2009	Fill	JBS 2010	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP101	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP102	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP103	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP105	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP110	0.4-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WSP 2020																																									
In-situ Soil Samples																																									
MW01_0.5	0.5	22/04/2020	Fill - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
MW01_3.0	3	22/04/2020	Natural - Clayey sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02_0.0	0	22/04/2020	Natural - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW02_4.0	4	22/04/2020	Natural - Shale	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
MW02_6.0	6	22/04/2020	Natural - Shale	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
MW03_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW03_1.0	1	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
MW03_2.0	2	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
TP01_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
TP02_0.5	0.5	22/04/2020	Natural - Sandy clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
TP03_0.8	0.8	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.1	0.1	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP04_0.6	0.6	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
TPS1_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS2_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS3_0.5	0.5	23/04/2020	Fill - Silty gravel	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS4_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS5_0.0	0	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS6_0.5	0.5	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS7_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPS8_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockpile Samples																																									
SPA1_0.1	0.1	24/04/2020	Surface - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPA1_0.5	0.5	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPA1_1.0	1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPA1_2.0	2	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPA2_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPA2_2.0	2	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPA2_PACM	-	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPB1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPB1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPC1_0.5	0.5	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SPC1_2.0	2	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
SP83_0.1	0.1	23/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP83_0.5	0.5	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP84_0.3	0.3	23/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

	Miscellaneous Hydrocarbons				Chlorinated Benzenes							Trihalomethanes				Organophosphorus Pesticides																													
	1,2-dibromoethane	Bromomethane	Cyclohexane	Dibromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Azinophos methyl	Bolstar (Sulprofos)	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
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil											80								2000																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																										
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																										
CRC Care B(a)P Guidance																																										
Kansas Department of Health and Environment (2002)																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																										

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																																											
SP84_0.9	0.9	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP88_0.1 (A)	0.1	24/04/2020	Fill - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP88_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP104_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.1	0.1	24/04/2020	Fill - Gravelly sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP022_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.0	0	22/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_1_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_1_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_1_1.0	1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_2_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_2_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_2_1.0	1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_3_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<0.5	<2	<0.2	<2	<0.2
F1_3_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<0.5	<2	<0.2	<2	<0.2
F1_4_0.1	0.1	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<0.5	<2	<0.2	<2	<0.2
F1_4_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<0.5	<2	<0.2	<2	<0.2
F1_5_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F1_6_0.5	0.5	24/04/2020	-	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_2_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_2_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_3_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_3_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_4_0.1	0.1	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_4_0.3	0.3	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_4_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_4_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_5_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_6_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_6_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F2_7_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_1_0.5	0.5	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_1_1.0	1	24/04/2020	Natural - sandstone	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_4_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_4_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
F3_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	<0.05	-	-	-	-	<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	<2	<0.2	<2	<0.2
JBS&G 2021																																												
Stockpile Samples																																												
JSP01_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
JSP02_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP02_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP02_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02 (dupicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA02 (triplicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP05_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

| | | | | | Miscellaneous Hydrocarbons | | | | Chlorinated Benzenes | | | | | | | Trihalomethanes | | | | Organophosphorus Pesticides | | | | | | |

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

	Miscellaneous Hydrocarbons				Chlorinated Benzenes							Trihalomethanes				Organophosphorus Pesticides																													
	1,2-dibromoethane	Bromomethane	Cyclohexane	Dibromomethane	1,2,3-trichlorobenzene	1,2,4-trichlorobenzene	1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Chlorobenzene	Hexachlorobenzene	Dibromochloromethane	Chloroform	Tribromomethane	Bromodichloromethane	Azinophos methyl	Bolstar (Sulprofos)	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
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil											80								2000																								
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																																										
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																																										
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																																										
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																																										
CRC Care B(a)P Guidance																																										
Kansas Department of Health and Environment (2002)																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																																										
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																																										
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																																										

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																																										
TP12	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP12	3.0-3.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP12	4.0-4.1	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	0.1-0.2	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP13	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD1/281021 (triplicate pair TP13)	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP15	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP15	0.5-0.6	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15	1.0-1.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP15	2.0-2.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD2/281021 (triplicate pair TP15)	2.0-2.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP16	0.5-0.6	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	1.0-1.1	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	2.0-2.1	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16A	2.4-2.5	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BH16A	3.1-3.2	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17*	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP17	0.5-0.6	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	1.0-1.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17	2.0-2.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP18	0.1-0.2	29/10/2021	Top soil - Silty clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP19	0.1-0.2	29/10/2021	Top soil - Silty clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP19	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD6/291021 (duplicate pair TP19)	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20	0.1-0.15	29/10/2021	Top soil - Silty clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BH21	0.2-0.3	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BH22	0.1-0.2	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BH23	0.1-0.2	28/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BH23	0.5-0.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BD1JH/20211029 (triplicate pair BH24)	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24	0.9-1.0	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24	1.0-1.2	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BH25	0.9-1.0	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26	0.1-0.2	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
TP26	0.5-0.6	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26	1.5-1.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD4/281021 (duplicate pair BH26)	1.5-1.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH27	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	<0.1	<0.1	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-
BD2JH/202111029 (duplicate pair BH27)	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH27	1.4-1.5	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS1	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS2	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS3	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS4	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS5*	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS6	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Triplicate analysis undertaken by laboratory for metals on sample. The highest concentration recorded has been summarised in this table.

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

										Non-Metallic Inorganics						Major Anions			Asbestos		Asbesots ID
										Nitrate & Nitrite (as N)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Chloride	Sulphate	Asbestos from ACM in Soil	Asbestos FA & AF in Soil	Asbestos Reported Result
	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	% (w/w)	% (w/w)	Comment
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																					
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																					
CRC Care B(a)P Guidance																					
Kansas Department of Health and Environment (2002)													40								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																				0.05	0.001	

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																			
JBS 2010																							
In-situ Soil Samples																							
TP1	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP002	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP003	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC4 (duplicate of TP003)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP004	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP005	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP006	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP007	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP008	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP009	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP010	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP011	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC7 (duplicate of TP011)	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP012	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP013	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP014	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
M3 (fragment from TP014)	surface	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chrysotile asbestos detected.
M3 (soil under M3)	0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP015	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP017	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP018	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC9 (duplucate of TP018)	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP019	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP020	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP021	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
F1 (Fragment from TP022)	surface	9/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chrysotile asbestos detected. Amosite asbestos detected.
FS1 (soil under F1)	0.1	9/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP022B	0-0.1	9/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP023	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP024B	0-0.1	9/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP025	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP026	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP027	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP028	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP029	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP029	0.5-0.7	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP030	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP031	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP032	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP032	0.3-0.4	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP033	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP034	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP035	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP035	1.6-1.8	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP036	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP037	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP038	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP039	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP039	0.5-0.6	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP40	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC6 (duplicate of TP040)	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP041	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP041	0.2-0.3	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP042	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP043	0-0.15	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP044	0-0.1	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP045	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC5 (duplicate of TP045)	0-0.15	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP046B	0-0.1	9/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP047	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP048	0-0.1	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP049	0.4-0.6	4/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

										Non-Metallic Inorganics						Major Anions			Asbestos		Asbesots ID
	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Tokuthion	Trichloronate	Parathion	Nitrate & Nitrite (as N)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Chloride	Sulphate	Asbestos from ACM in Soil	Asbestos FA & AF in Soil	Asbestos Reported Result
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% (w/w)	% (w/w)	Comment
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																				
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																				
CRC Care B(a)P Guidance																				
Kansas Department of Health and Environment (2002)											40									
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																				
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																		0.05	0.001	

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																			
TP049B	Stockpile	9/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP050	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP051	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP052	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP053	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP054	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP055	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP056	0-0.1	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP057	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP058	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP059	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP060	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP061	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC1 (duplicate of TP061)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP062	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP063	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
M1 (Fragment fron TP063)	surface	3/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chrysotile asbestos detected. Amosite asbestos detected.
TP063	0.2-0.3	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP064	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP065	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP066	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP067	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP068	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP069	0-0.15	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP069	0.5-0.6	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP070	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP071	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP072	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP073	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP074	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP075	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP076	0-0.1	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP077	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP078	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC3 (duplciate of TP078)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP079	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC2 (duplicate of TP080)	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP080	0-0.15	3/12/2009	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP111	0-0.1	3/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP111-F1 (Frgment from TP111)	surface	4/12/2009	-	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Chrysotile asbestos detected. Amosite asbestos detected.
HA112	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA113	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA114	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA115	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA116	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA117	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA118	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA119	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA120	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA121	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA122	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA123	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA124	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA125	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA126	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA127	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA128	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA129	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA130	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
HA131	0-0.1	7/04/2010	Silty clay	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
Stockpile Samples																								
TP081	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP082	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP83	0.4-0.6	4/12/2009	Fill	JBS 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

										Non-Metallic Inorganics						Major Anions			Asbestos		Asbesots ID

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

										Non-Metallic Inorganics						Major Anions			Asbestos		Asbesots ID
										Nitrate & Nitrite (as N)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Chloride	Sulphate	Asbestos from ACM in Soil	Asbestos FA & AF in Soil	Asbestos Reported Result
										mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% (w/w)	% (w/w)	Comment
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																					
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																					
CRC Care B(a)P Guidance																					
Kansas Department of Health and Environment (2002)													40								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																				0.05	0.001	

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Tokuthion	Trichloronate	Parathion	Nitrate & Nitrite (as N)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Chloride	Sulphate	Asbestos from ACM in Soil	Asbestos FA & AF in Soil	Asbestos Reported Result
SP84_0.9	0.9	23/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP88_0.1 (A)	0.1	24/04/2020	Fill - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP88_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP104_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP104_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP105_1_0.1	0.1	24/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP105_1_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14_0.1	0.1	24/04/2020	Fill - Gravelly sand	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP14_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	290	-	-	-
TP14_1.0	1	24/04/2020	Natural - Clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP022_0.0	0	22/04/2020	Natural - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	310	10	0	0	-
TP111_0.0	0	22/04/2020	Fill - Silty clay	WSP 2020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
TP111_0.5	0.5	22/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	240	18	0	0	-
F1_1_0.1	0.1	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_1_0.5	0.5	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_1_1.0	1	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_2_0.1	0.1	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_2_0.5	0.5	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_2_1.0	1	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_3_0.1	0.1	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_3_0.5	0.5	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_4_0.1	0.1	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_4_0.5	0.5	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_5_0.5	0.5	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F1_6_0.5	0.5	24/04/2020	-	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_1_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_2_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_2_1.0	1	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_3_0.3	0.3	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_3_1.0	1	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_4_0.1	0.1	24/04/2020	Fill - Silty clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_4_0.3	0.3	24/04/2020	Fill - Silty clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_4_0.5	0.5	24/04/2020	Fill - Silty clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_4_1.0	1	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_5_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_6_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_6_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F2_7_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_1_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_1_0.5	0.5	24/04/2020	Natural - Silty clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_1_1.0	1	24/04/2020	Natural - sandstone	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_2_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_2_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_3_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_3_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_4_0.1	0.1	24/04/2020	Fill - Silty sand	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_4_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
F3_5_0.5	0.5	24/04/2020	Natural - Clay	WSP 2020	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	0	0	-
JBS&G 2021																								
Stockpile Samples																								
JSP01_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
JSP02_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP02_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP02_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
QC02 (dupicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
QA02 (triplicate of SP02_02)	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SP05_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1393	0	Chrysotile asbestos detected.

Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

										Non-Metallic Inorganics						Major Anions			Asbestos		Asbesots ID
										Nitrate & Nitrite (as N)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Chloride	Sulphate	Asbestos from ACM in Soil	Asbestos FA & AF in Soil	Asbestos Reported Result
	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	% (w/w)	% (w/w)	Comment
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																					
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																					
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																					
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																					
CRC Care B(a)P Guidance																					
Kansas Department of Health and Environment (2002)													40								
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																					
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																					
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																				0.05	0.001	

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																		
SP05_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0074	0.0003	Chrysotile asbestos detected.
SP06_01	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP06_02	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP06_03	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP06_04	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP06_05	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP06_06	-	27/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP14_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP18_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP18_02	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP18a_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP21_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP21_02	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP21_03	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP21_04	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP23_01	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SP23_02	-	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
In-situ Soil Samples																						
SS02_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS03_01	0-0.1	26/10/2021	Fill - Clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
QC01 (duplicate of SS03_01)	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
QA01 (triplicate of SS03_01)	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS04_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS05_01	0-0.1	26/10/2021	Fill - Clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS09_01	0-0.1	26/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS10_01	0-0.1	27/10/2021	Fill Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS11_01	0-0.1	27/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS13_01	0-0.1	27/10/2021	Fill - Silty clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS14_01	0-0.1	26/10/2021	Natural - Clay	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS22_01	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
SS22_02	0-0.1	26/10/2021	-	JBS&G 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
Douglas Partners 2021																						
In-situ Soil Samples																						
TP1	0.1-0.2	28/10/2021	Top soil - Silty clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
BH2	0.2-0.3	29/10/2021	Fill - Gravelly sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
BH2	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3	0.2-0.3	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP4	0.1-0.15	28/10/2021	Top soil - Silty clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP4	0.5-0.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH5	0.2-0.3	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
BH6	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6	0.9-1.0	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6	2.9-3.0	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
BD3JH/20211029 (duplicate pair BH7)	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH7	0.9-1.0	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
BH7	2.4-2.5	29/10/2021	Natural - Siltstone gravel	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH8	0.2-0.3	29/10/2021	Fill - Gravelly sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP9	0.1-0.15	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP9	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP9	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP9	3.0-3.1	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP10	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP10	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP10	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP10	2.5-2.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP11	0.5-0.6	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP11	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP11	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP11	3.0-3.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP12	0.1-0.2	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-
TP12	0.5-0.6	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-
TP12	1.0-1.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0366		Chrysotile asbestos

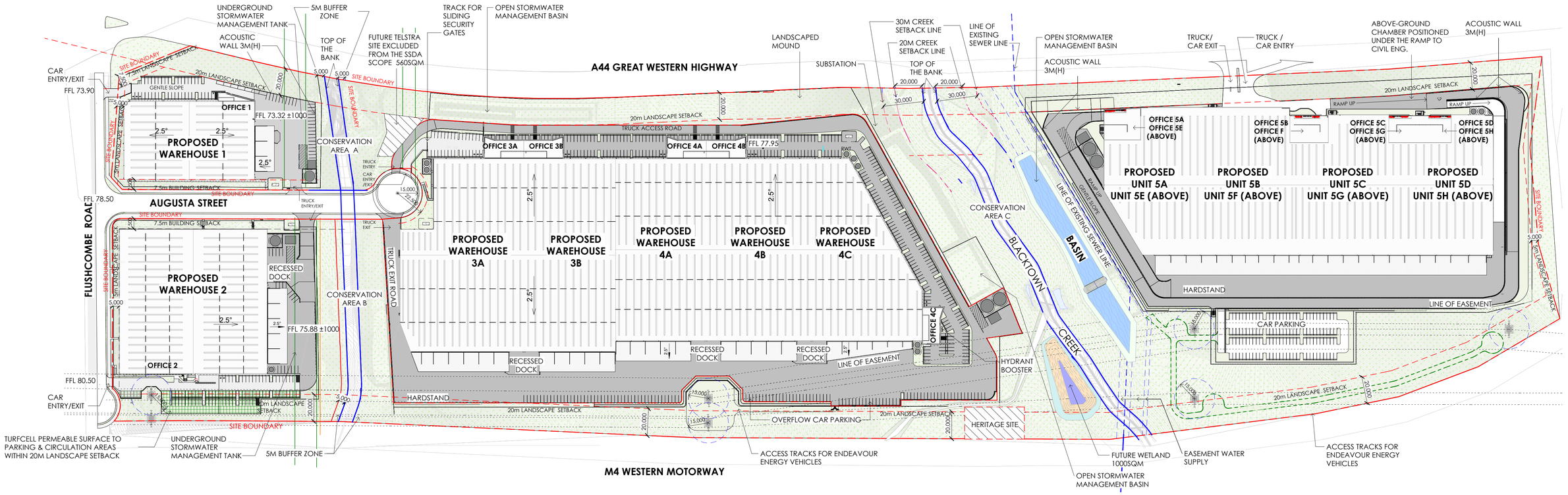
Table C: Historical Soil Summary
Project Number: 62742
Project Name: Huntingwood - Augusta Street, Blacktown

										Non-Metallic Inorganics						Major Anions			Asbestos		Asbesots ID
	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Tetrachlorvinphos	Tokuthion	Trichloronate	Parathion	Nitrate & Nitrite (as N)	Ammonia as N	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Kjeldahl Nitrogen Total	Phosphorus	Chloride	Sulphate	Asbestos from ACM in Soil	Asbestos FA & AF in Soil	Asbestos Reported Result
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	% (w/w)	% (w/w)	Comment
NEPM 2013 Table 1A(1) HILs Comm/Ind D Soil																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 0-<1m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 1-<2m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 2-<4m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Clay 4+m																				
NEPM 2013 Table 1A(3) Comm/Ind D Soil HSL for Vapour Intrusion, Sand 0-<1m																				
NEPM 2013 Table 1B(1-5) EIL - Comm/Ind Site Specific (WSP, 2020b)																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Fine Soil																				
NEPM 2013 Table 1B(6) ESLs for Comm/Ind, Course Soil																				
CRC Care B(a)P Guidance																				
Kansas Department of Health and Environment (2002)											40									
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Fine Soil																				
NEPM 2013 Table 1B(7) Management Limits Comm / Ind, Course Soil																				
NEPM 2013 Table 7 Comm/Ind D Soil HSL for Asbestos in Soil																		0.05	0.001	

Field ID	Sample Depth	Sample Date	Soil Description	Report Reference																		
TP12	2.0-2.1	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP12	3.0-3.1	29/10/2021	Fill - Clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP12	4.0-4.1	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP13	0.1-0.2	28/10/2021	Fill - Clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP13	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD1/281021 (triplicate pair TP13)	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP14	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP15	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP15	0.5-0.6	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP15	1.0-1.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP15	2.0-2.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD2/281021 (triplicate pair TP15)	2.0-2.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP16	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP16	0.5-0.6	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP16	1.0-1.1	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP16	2.0-2.1	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH16A	2.4-2.5	29/10/2021	Fill - Gravelly clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH16A	3.1-3.2	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP17*	0.1-0.2	28/10/2021	Fill - Sandy gravel	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	Chrysotile asbestos
TP17	0.5-0.6	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP17	1.0-1.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP17	2.0-2.1	28/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP18	0.1-0.2	29/10/2021	Top soil - Silty clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP19	0.1-0.2	29/10/2021	Top soil - Silty clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP19	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD6/291021 (duplicate pair TP19)	0.5-0.6	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP20	0.1-0.15	29/10/2021	Top soil - Silty clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	0.0053	-	Chrysotile asbestos
BH21	0.2-0.3	28/10/2021	Fill - Gravelly clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH22	0.1-0.2	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH23	0.1-0.2	28/10/2021	Fill - Sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH23	0.5-0.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
BD1JH/20211029 (triplicate pair BH24)	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH24	0.9-1.0	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	Chrysotile asbestos
BH24	1.0-1.2	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25	0.1-0.2	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH25	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
BH25	0.9-1.0	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26	0.1-0.2	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP26	0.5-0.6	28/10/2021	Fill - Gravelly sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
TP26	1.0-1.1	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP26	1.5-1.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD4/281021 (duplicate pair BH26)	1.5-1.6	28/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH27	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	<0.1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
BD2JH/202111029 (duplicate pair BH27)	0.4-0.5	29/10/2021	Fill - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH27	1.4-1.5	29/10/2021	Natural - Clay	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS1	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	Chrysotile asbestos
SS2	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	Chrysotile asbestos
SS3	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
SS4	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0018	-	Chrysotile asbestos
SS5*	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	-	-
SS6	Surface	27/10/2021	Fill - Sand	DP 2021	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Triplicate analysis undertaken by laboratory for metals on sample. The highest concentration recorded has been summarised in this table.

Appendix B Proposed Consolidated Lots



1 MASTERPLAN

1 : 1500

NOTE 1:
METHOD OF MEASUREMENT OF **GFA (GROSS FLOOR AREA)** IS AS FOLLOW:
- MEASURED FROM INTERNAL FACE OF EXTERNAL WALLS.
- INCLUDED MEZZANINES AND ANY HABITABLE ROOMS IN THE BASEMENTS
-VERTICAL CIRCULATION SUCH AS LIFTS AND STAIRS:
  EXCLUDED - IF SHARED BETWEEN TENANCIES
  INCLUDED - IF EXCLUSIVE FOR ONE TENANT
- EXCLUDED BASEMENTS UNLESS THEY ARE HABITABLE ROOM
- EXCLUDE GARBAGE AREAS, SPACES USED EXCLUSIVELY FOR SERVICE SUCH AS DUCTING, PLANT ROOMS, LIFT MOTOR ROOMS AND CAR PARKING
- TERRACES AND BALCONIES:
  EXCLUDED - IF OUTER WALL IS LESS THEN 1.4m HIGH
  INCLUDED - IF OUTER WALL IS MORE THEN 1.4m HIGH
- EXCLUDED VOIDS AT ANY LEVEL THEY OCCUR

NOTE2:
PARKING CALCULATION (BASED ON GFA):
- INDUSTRIAL/ WAREHOUSE: BUILDING 7,500SQM OR LESS– 1 SPACE PER 100SQM GFA.
- BUILDING GREATER THAN 7,500SQM GFA– 1 SPACE PER 200SQM GFA ONLY FOR THE AREA IN EXCESS OF 7,500SQM WHERE THERE IS SPECIFIC END USER WHICH WOULD NOT DEMAND A HIGHER RATE AND WHERE EMPLOYEE PARKING IS ADEQUATELY CATERED FOR.
- COMMERCIAL: 1 SPACE PER 40SQM GFA
NUMBER OF DISABLED CAR PARKS AT LEAST %2 OR PART THEREOF OF THOSE SPACES.

NOTE3:
MOTORCYCLE PARKING CALCULATION (BASED ON CAR PARKING NUMBER):
EACH 50 CAR PARKS, ONE MOTORCYCLE PARK

BUILDING 1

DEVELOPMENT SUMMARY (BLDG1) - GFA

Name	Area
OFFICE 1	399 m²
OFFICE 1 LOBBY	75 m²
WAREHOUSE 1	5461 m²
Grand total	5935 m²

AWNING 15M (BLDG1)	511 m²
HEAVY DUTY PAVEMENT (BLDG 1)	3074 m²
LIGHT DUTY PAVEMENT (BLDG 1)	1352 m²

PROVIDED PARKING SCHEDULE (BLDG1)

Family	Type	Count
PK-CP1	5400 x 2500 - 90 deg	43
PK-CP3	5400 x 2500 - (Accessible)	2
PK-CP2	5400 x 2500 - (Backup)	25
PK-CP7	5400 x 2500 - EV CAR	3
Grand total		73
TOTAL CAR PARK REQUIRED		67

PROVIDED MOTORCYCLE PARKING (BLDG1)

Family	Type	Count
PK-CP8	2500 x 1200 (MOTORCYCLE)	2
Grand total		2

BUILDING 2

DEVELOPMENT SUMMARY (BLDG2) - GFA

Name	Area
OFFICE 2	363 m²
WAREHOUSE 2	11668 m²
Grand total	12031 m²

AWNING 10M (BLDG 2)	834 m²
HEAVY DUTY PAVEMENT (BLDG 2)	4035 m²
LIGHT DUTY PAVEMENT (BLDG 2)	1375 m²

PROVIDED PARKING SCHEDULE (BLDG2)

Family	Type	Count
PK-CP1	5400 x 2500 - 90 deg	83
PK-CP3	5400 x 2500 - (Accessible)	3
PK-CP2	5400 x 2500 - (Backup)	17
PK-CP7	5400 x 2500 - EV CAR	3
Grand total		106
TOTAL CAR PARK REQUIRED		104

PROVIDED MOTORCYCLE PARKING (BLDG2)

Family	Type	Count
PK-CP8	2500 x 1200 (MOTORCYCLE)	3
Grand total		3

BUILDING 3 BUILDING 4

DEVELOPMENT SUMMARY (BLDG3&4) - GFA

Name	Area
OFFICE 3A	441 m²
OFFICE 3A LOBBY	42 m²
OFFICE 3B	439 m²
OFFICE 3B LOBBY	42 m²
OFFICE 4A	441 m²
OFFICE 4A LOBBY	42 m²
OFFICE 4B	441 m²
OFFICE 4B LOBBY	42 m²
OFFICE 4C	415 m²
OFFICE 4C LOBBY	66 m²
WAREHOUSE 3A	11703 m²
WAREHOUSE 3B	9733 m²
WAREHOUSE 4A	9093 m²
WAREHOUSE 4B	9088 m²
WAREHOUSE 4C	9838 m²
Grand total	51866 m²

AWNING 5M (BLDG 4)	56 m²
AWNING 15M (BLDG 3)	1834 m²
AWNING 15M (BLDG 4)	2183 m²
HEAVY DUTY PAVEMENT (BLDG 3&4)	23244 m²
LIGHT DUTY PAVEMENT (BLDG 3&4)	8114 m²

PROVIDED PARKING SCHEDULE (BLDG3&4)

Family	Type	Count
PK-CP1	5400 x 2500 - 90 deg	211
PK-CP3	5400 x 2500 - (Accessible)	10
PK-CP2	5400 x 2500 - (Backup)	113
PK-CP7	5400 x 2500 - EV CAR	12
Grand total		346
TOTAL CAR PARK REQUIRED		338

PROVIDED MOTORCYCLE PARKING (BLDG3&4)

Family	Type	Count
PK-CP8	2500 x 1200 (MOTORCYCLE)	7
Grand total		7

BUILDING 5

DEVELOPMENT SUMMARY (BLDG5) - GFA

Name	Area
OFFICE 5A	519 m²
OFFICE 5B	501 m²
OFFICE 5C	389 m²
OFFICE 5D	390 m²
OFFICE 5E	515 m²
OFFICE 5F	502 m²
OFFICE 5G	389 m²
OFFICE 5H	389 m²
UNIT 5A	9467 m²
UNIT 5B	7538 m²
UNIT 5C	6889 m²
UNIT 5D	6423 m²
UNIT 5E	9463 m²
UNIT 5F	7497 m²
UNIT 5G	6886 m²
UNIT 5H	5458 m²
Grand total	63215 m²

AWNING 15M (BLDG5)	3847 m²
HEAVY DUTY PAVEMENT (BLDG 5)	25419 m²
LIGHT DUTY PAVEMENT (BLDG 5)	20817 m²

PROVIDED PARKING SCHEDULE (BLDG5)

Family	Type	Count
PK-CP1	5400 x 2500 - 90 deg	267
PK-CP2	5400 x 2500 - (Backup)	120
PK-CP3	5400 x 2500 - (Disable)	12
PK-CP7	5400 x 2500 - EV CAR	14
PK-CP5	5900 x 2500 - 0 deg (PARALLEL PARKING)	13
Grand total		426
TOTAL CAR PARK REQUIREE (EXCLUDING BACKUP)		288

PROVIDED MOTORCYCLE PARKING (BLDG5)

Family	Type	Count
PK-CP8	2500 x 1200 (MOTORCYCLE)	12
Grand total		12

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FOR APPROVAL

REVISION	DESCRIPTION	DATE
A	FOR SSDA SUBMISSION	23.06.23
B	TEST OF ADEQUACY UPDATES	11.08.23
C	TEST OF ADEQUACY UPDATES	18.08.23
D	TEST OF ADEQUACY UPDATES	21.08.23
E	POST SSDA UPDATES	20.02.24

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H- MASTERPLAN

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