

Our Ref: A412770685 You Ref: SSI 8931

16 February 2022

Jake Shackleton Director - Infrastructure Management Department of Planning and Environment 4 Parramatta Square, 12 Darcy St, Parramatta, NSW 2150.

Dear Jake,

#### M6 Stage 1 Project Re: SSI 8931 Condition of Approval E112 Submission of a Remediation Action Plan of the C6 Ancillary Site. Submitted for information

Transport for NSW (TfNSW) refer to the M6 Stage 1 project (SSI-8931) (the **Project**), approved by the Minister for Planning and Public Spaces on 18 December 2019. The Minister's Condition of Approval E112 required the preparation of a Remediation Action Plan (RAP) where land is subject to remediation to make that land suitable for the final intended land use.

A RAP is required for the former Seven-Eleven located at 734 Princes Highway, Kogarah NSW, which is an approved Ancillary Site (C6) for the Project.

The attached *Remedial Action Plan, Princes Highway Construction Ancillary Facility (C6)* (**Attachment A**) has been prepared as per the requirements of the Minister's Condition of Approval and is being submitted to the Department of Planning and Environment (DPE) for information.

Should you have any queries in relation to this submission, please contact David Lehrbach on 0409 517 746 or David.Lehrbach@transport.nsw.gov.au.

Yours sincerely

Teresa Avila Project Director M6 Stage 1





# M6 Motorway Stage 1

#### Remedial Action Plan Princes Highway Construction Ancillary Facility (C6)

CPB Contractors Ghella UGL Engineering (CGU) joint venture



#### Reference: M6S1-COF-NWW-ENLD-RPT-670752\_v3

10 February 2021

## M6 MOTORWAY STAGE 1

#### Remedial Action Plan Princes Highway Construction Ancillary Facility (C6)

### Report reference number: M6S1-COF-NWW-ENLD-RPT-670752\_v3

10 February 2022

## PREPARED FOR

## PREPARED BY

#### CPB Contractors Ghella UGL Engineering (CGU) joint venture Level 7, Building B 197-201 Coward Street Mascot NSW 2020

# Tetra Tech Coffey

Level 19, Tower B, Citadel Tower, 799 Pacific Highway Chatswood NSW 2067 Australia p: +61 2 9406 1000 f: +61 2 9415 1678 ABN 55 139 460 521

## QUALITY INFORMATION

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#### **Restriction on Disclosure and Use of Data**

This report should be read in conjunction with the attached "Important information about your Tetra Tech Coffey Environmental Report"

# **Executive summary**

Tetra Tech Major Projects Pty Ltd (Tetra Tech) was engaged by CPB Contractors Ghella UGL Engineering (CGU) joint venture to prepare this Remedial Action Plan (RAP) for the Princes Highway Construction Ancillary Facility (C6) (herein interchangeable referred to as the 'CAF C6' or the 'site') located at 734 and 736 Princes Highway, Kogarah NSW. CAF C6 forms part of the M6 Stage 1 Project (the 'M6S1 Project').

The CGU joint venture has been awarded the design and construct contract for the M6S1 Project, a major road upgrade consisting of twin road tunnels linking the M8 Motorway at Arncliffe to President Avenue in Kogarah. The CGU joint venture will utilise Construction Ancillary Facilities (CAFs) during M6S1 construction works for use as temporary works compounds. A portion of the CAF C6 will be redeveloped for road widening to accommodate a slip lane for the intersection of Princes Highway and President Avenue with the remaining portion handed back to Transport for NSW (TfNSW) for divestment.

At the time this report was written, the site was occupied by a disused service station and vehicle maintenance workshops comprising the former service station convenience store, two motor vehicle workshops and two awnings covering the former locations of fuel bowsers. The site is known to be contaminated with petroleum hydrocarbons associated with the storage of petroleum products and maintenance of vehicles since the 1950s. The property contains 13 underground storage tanks (USTs), 10 of which have been foam-filled and the other 3 considered to be previously decommissioned in-situ (possibly filled with concrete or sand).

A summary of several previous contamination reports indicated that residual contamination at the site is present within fill materials and underlying residual sandy clays. The fill material is typically between 0.5 to 1.15 m thick and is comprised of gravelly sand that contained building rubble (concrete, bricks and asphalt). One fragment of non-friable asbestos was encountered within the fill at one borehole near the northern boundary during a Stage 2 DSI (Cardno, 2020). Hydrocarbon (fuel) odours were reported within fill and residual soils during the Stage 2 DSI at all 8 soil sampling locations. Soil results obtained during the Stage 2 DSI reported concentrations above the adopted human health criteria for F1 TRH and/or benzene near the southern bowsers, near the entrance to the former vehicle maintenance garage and at the northern site boundary (on either side of the former workshop). The soil impacts were reported in samples from between 1 to 2 m BGL.

Groundwater is generally encountered around 1.5 m BGL in a sandy clay aquifer. Groundwater is inferred to flow towards the east. LNAPL has historically been reported at the site, and off-site to the north. Groundwater remediation was undertaken to prevent off-site migration of LNAPL at the northern eastern portion of the site between 2017 to 2019. Contaminant concentrations in groundwater were below the applicable ASC NEPM 'commercial / industrial' HSL for vapour intrusion during a GME undertaken by Cardno in September 2020, indicating that a health risk to on-site workers due to vapour intrusion into indoor air is unlikely. Groundwater results along the down-gradient (eastern) boundary did not exceed the HSL-A/B criteria applicable for assessing potential vapour intrusion risk to off-site residential receptors to the east of the site. The off-site extent of the groundwater plume requires confirmation.

A potential human health risk from vapour intrusion and direct contact may arise for workers undertaking intrusive earthworks and maintenance on existing shallow subsurface utilities, particularly to the north and north east of the site.

The outcomes of a preliminary risk assessment undertaken by Cardno (November 2020) for a residential exposure scenario indicated that concentrations of volatile petroleum hydrocarbons in soil vapour and groundwater beneath the offsite residential apartment building immediately north of the site were not likely to pose an unacceptable risk to onsite residents. The NSW EPA requested confirmation of the preliminary risk assessment outcomes.

Contamination at the site presents a potentially unacceptable risk to human health and the environment which may warrant remediation. In December 2020, TfNSW notified the site to NSW Environment Protection Authority (EPA) under Section 60 of the Contaminated Land Management Act 1997 (the Act). In July 2021, NSW EPA subsequently decided that the contamination warranted regulation and declared the site significantly contaminated under Section 11 of the Act.

The objective of this RAP is to assess methods of treatment or management of contamination at the site so that potential health and ecological risk to future site users and to residents to the north of the site may be made acceptable. Based on contamination identified, the proposed redevelopment and a review of appropriate remedial options, the preferred remedial strategy to mitigate contamination risks is to excavate UPSS infrastructure and associated heavily impacted soils to make the site suitable for the intended uses. Surplus soils generated by the excavations will be disposed off-site as waste. Detailed procedures are provided for the remediation and validation works, including the remediation criteria used to validate that the site is suitable for the intended non-residential use.

CGU has prepared an Unexpected Finds Procedure that must be implemented should unexpected or new contaminated land or asbestos (actual or suspected) be unearthed or otherwise discovered during construction.

At the completion of the remedial works, a validation report will be prepared in general accordance with NSW EPA 2020 Guidelines for Consultants Reporting on Contaminated Land, and the National Environment Protection (Assessment of Site Contamination) Measure, 1999 (amended April 2013), documenting the works as completed and the resultant site contamination status. Further assessment of the potential risks to off-site receptors shall form part of the validation.

Subject to the successful implementation of the measures detailed in this RAP and, if needed, implementation of an LTEMP to manage residual groundwater contamination, it is considered that the site can be made suitable for the proposed commercial / industrial land-use

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# ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
ACM	Asbestos-containing materials
AFFF	Aqueous Film Forming Foam
AHD	Australian Height Datum
ALS	Australian Laboratory Services
ANZECC	Australian and New Zealand Environment and Conservation Council
ASS	Acid Sulphate Soils
BGL	Below Ground Level
BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene
BTOC	Below Top of Casing
C <sub>6</sub> -C <sub>36</sub>	Hydrocarbon chain length fraction
CAF	Construction Ancillary Facility
CGU	CPB Contractors Ghella UGL Engineering
CLM	Contaminated Land Management
COC	Chain of Custody
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DP	Deposited Plan
DPI&E	Department of Planning, Industry and Environment
DSI	Detailed Site Investigation
DTW	Depth to Water
EC	Electrical Conductivity
EPA	Environment Protection Authority
EPL	Environmental Protection Licence
GME	Groundwater Monitoring Event
HSL	Health Screening Level
IP	Interface Probe
LAA	Licensed Asbestos Assessor
LNAPL	Light Non-Aqueous Phase Liquid
LOR	Limit of Reporting
LTEMP	Long Term Environmental Management Plan
µg/L	Micrograms per Litre
mg/L	Milligrams per Litre
M6S1	M6 Motorway Stage 1
MPVE	Multi-Phase Vacuum Extraction
MW	Monitoring Well
NATA	National Association of Testing Authorities
NE	Not Established
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council

NOA	Naturally Occurring Asbestos
NSW EPA	New South Wales Environment Protection Authority
PID	Photoionisation Detector
POEO	Protection of the Environment Operations
RAP	Remedial Action Plan
SCR	Site Contamination Report(s)
SSI	State Significant Infrastructure
SWL	Static Water Level
TfNSW	Transport for NSW
TDS	Total Dissolved Solid
TRH	Total Recoverable Hydrocarbon
UPSS	Underground Petroleum Storage System
UST	Underground Storage Tank
VMP	Voluntary Management Proposal
VOC	Volatile Organic Compound

# FINAL

# 1. INTRODUCTION

Tetra Tech Major Projects Pty Ltd (Tetra Tech) was engaged by CPB Contractors Ghella UGL Engineering (CGU) joint venture to prepare this Remedial Action Plan (RAP) for the Princes Highway Construction Ancillary Facility (C6) (herein interchangeable referred to as the 'CAF C6' or the 'site') located at 734 and 736 Princes Highway, Kogarah NSW. CAF C6 forms part of the M6 Stage 1 Project (the 'M6S1 Project'). The location of the M6S1 Project and CAF C6 is shown on Figure 1 in Appendix A.

# 2. BACKGROUND

# 2.1 The M6S1 Project

The CGU joint venture has been awarded the design and construct contract for the M6S1 Project. The M6 Motorway is part of the 40-year vision of the NSW Government for transport outcomes in NSW. The M6S1 Project will consist of twin road tunnels, approximately four kilometres in length, linking the M8 Motorway at Arncliffe to President Avenue in Kogarah. The new motorway will deliver the missing link from Sydney's south to the wider motorway network, making journeys easier, faster and safer. The CGU joint venture will utilise six Construction Ancillary Facilities (CAFs) denoted C1 to C6. The CAF C6 site will be used by CGU during M6S1 construction works. Following M6S1 constructions activities, part of the CAF C6 site will be redeveloped for road widening and the remainder handed back to Transport for NSW (TfNSW) (as shown on Sheet A.2 in Appendix A).

A State Significant Infrastructure (SSI) Application (Ref: SSI 8931) for the M6S1 Project was approved by the NSW Minister for Planning and Public Spaces (Department of Planning, Industry and Environment (DPI&E)) in December 2019. The Infrastructure Approval included Condition E112 (Contaminated Sites) which required the preparation of:

- Site Contamination Report(s) (SCR).
- Remedial Action Plan(s) prior to undertaking remediation.
- Section A Site Audit Statement(s) and Site Audit Report(s) prior to the commencement of operation, if required.

# 2.2 The CAF C6 Development

The CAF C6 site comprises a former 7-Eleven service station (734 and 736 Princes Highway) and adjacent footpaths (736 Princes Highway). Redevelopment at the site will be carried out in two stages comprising Stage 1 (Early Works) and Stage 2 works (road widening). Stage 1 works will comprise preparation of the site for use as a temporary works compound to support the construction of the tunnels and interface of the tunnels with surface roads. A portion of the site will be redeveloped during Stage 2 for road widening to accommodate a slip lane for the intersection of Princes Highway and President Avenue. Once construction of the road upgrade is complete, the remainder of the site will be provided to TfNSW property group for divestment.

Stage 1 Early Works at the site will include the demolition of existing buildings (including slabs and foundations) and the removal and validation of the former Underground Petroleum Storage Systems (UPSS) A total of 13 underground storage tanks (USTs) and associated fuel lines and vents have previously been identified. Utilities and stormwater infrastructure will be relocated as part of Stage 1 works.

Following site validation, the site will be prepared as a temporary construction compound to facilitate equipment laydown and parking of construction vehicles.

Stage 2 (road widening) works at the site will include the construction of the slip lane on the south-western portion of CAF C6.

# 2.3 Contamination Findings at CAF C6

The site is known to be contaminated with petroleum hydrocarbons associated with the former use of the site as a service station and vehicle maintenance workshop since the 1950s. Groundwater remediation was carried out at the site between 2017 and 2019 including the installation of a groundwater interception trench, groundwater extraction and treatment system to reduce the mass of dissolved phase hydrocarbons and LNAPL migrating off-site in groundwater.

The property contains 13 USTs, 10 of which have been foam filled and the other three considered to be previously decommissioned in-situ (possibly filled with concrete or sand).

Contamination at the site presents a potentially unacceptable risk to human health and the environment which may warrant remediation. In December 2020, TfNSW notified the site to NSW Environment Protection Authority (EPA) under Section 60 of the *Contaminated Land Management Act 1997* (the Act). NSW EPA subsequently reviewed documents relating to assessment of the contamination at the site and decided that the contamination was significant enough to warrant regulation, declaring the site significantly contaminated under Section 11 of the Act. The Declaration was issued on 7 July 2021 (No. 20211101, Area 3478). A copy of the Declaration of Significantly Contaminated Land is provided as Appendix E.

The NSW EPA have requested that further assessment is required to better understand the extent of the contamination to the north of the property, and the potential risks to off-site receptors over the extent of the contaminated groundwater plume. Management may be required to prevent the further migration of contamination from the site and to address any identified off-site risks.

# 3. OBJECTIVES

The objectives of this RAP are to:

- Assess methods of treatment or management of contamination at the site so that potential health and ecological risk to future site users and to residents to the north of the site may be made acceptable.
- Design a remediation strategy capable of:
  - Making the site suitable in the short term as a CAF to be used by the M6 Stage 1 Project.
  - Making the site suitable at the end of the Project as a road corridor meeting commercial / industrial D land use under the NEPM D guidelines and so that no significant contamination continues to migrate from the site.
  - Confirming that contamination that has migrated from the Site does not pose an unacceptable risk to
    existing and future residents occupying adjacent buildings.
  - Allowing the EPA to rescind the Declaration as soon as practicable.
  - Allowing the Site Auditor to issue a Section A1 site audit statement for the site prior to the completion
    of the Project.

# 4. SCOPE OF WORKS

The scope of works for this RAP are to:

• Summarise the findings of the preliminary and detailed site investigations and risk assessment and present the refined conceptual site model.

- Document the identified contamination risks to human health and/or the environment.
- Set remediation objectives that ensure the remediated site will be suitable for its current and/or proposed use and which will result in no unacceptable risk to human health or to the environment and state remediation criteria.
- Define the extent of remediation required across the site.
- Assess options and remedial technologies to achieve the remediation objectives and select and justify a
  preferred approach, which must include the consideration of the principles of ecologically sustainable
  development.
- Document in detail all procedures and plans to reduce risks posed by contamination to acceptable levels for the proposed site use.
- Identify the need for, and reporting requirements of, remedial technology pilot trials (if applicable).
- Establish the environmental safeguards required to complete the remediation in an environmentally
  acceptable manner, including consideration of the potential for off-site impacts (such as air quality, odour
  and aesthetics).
- Address contingencies and unexpected finds protocols.
- Identify the necessary approvals and licences required by regulatory authorities including any items contained in development consent conditions.
- Clearly outline waste classification, handling and tracking requirements in accordance with the Guidelines for the NSW Site Auditor Scheme and Waste Classification Guidelines (EPA 2014).
- Ensure remediation is consistent with relevant laws, policies (including planning instruments and policies) and guidelines and reference these in the remedial action plan.
- Identify how successful implementation of the remedial action plan will be demonstrated, for example the
  validation requirements by documentation of site works and sampling and analysis etc (when sampling
  and analysis is required, a validation sampling and analysis quality plan must be included, with clearly
  defined acceptance validation criteria indicating what statistics will be used and any trend analysis
  following remediation, for example, applying the Mann-Kendall test).
- Assess the need for, and nature of, any long-term management and/or monitoring following the completion of remediation.

To fulfil these objectives, Coffey has prepared this RAP in general accordance with the reporting requirements for a RAP that are set out in Section 1.6 of the NSW EPA Contaminated Land Guidelines for Consultants Reporting on Contaminated Sites<sup>1</sup> (2020).

<sup>&</sup>lt;sup>1</sup> NSW Environment Protection Authority (EPA). Contaminated Land Guidelines: Consultants Reporting on Contaminated Sites, 5 May 2020.

# 5. TECHNICAL AND REGULATORY FRAMEWORK

This RAP has been developed in general accordance with the following legislation, industry standards, codes of practice, and guidance documents, where relevant:

- Friebel, E & Nadebaum, P 2011, *Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document*. CRC CARE Technical Report No.10, CRC for Contamination Assessment and Remediation of the Environment, Adelaide, Australia.
- HEPA PFAS National Environmental Management Plan, Version 2.0 January 2020. Heads of EPAs Australia and New Zealand
- NSW Work Health and Safety (WHS) Act 2011 (WHS Act 2011).
- NSW WHS Regulation 2017 (WHS Regulation 2017).
- NSW Contaminated Land Management Act 1997.
- Protection of the Environment Operations (POEO) Act 1997 (POEO Act 1997).
- POEO (Waste) Regulation 2014 (POEO Waste Regulation 2014).
- National Environment Protection Council, National Environment Protection (Assessment of Site Contamination) Measure, 1999 (amended April 2013) (ASC NEPM 2013).
- NSW EPA Contaminated Land Guidelines: Consultants Reporting on Contaminated Sites, 2020 (NSW EPA 2020a).
- NSW EPA Contaminated Land Guidelines: Assessment and Management of Hazardous Ground Gases (NSW EPA 2020b).
- NSW EPA Waste Classification Guidelines: Part 1 Classifying Waste, 2014 (NSW EPA Waste Classification Guidelines 2014).
- Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2019 under the Protection of the Environment Operations Act 1997.

# 6. SITE INFORMATION

## 6.1 Site Identification

Site identification details for the former 7-Eleven site are summarised in Table 6.1. The location of the site is shown on Figure 1.

Item	Comment		
Address	The Princes Highway CAF encompasses 734 and 736 Princes Highway, Kogarah.		
Lot/Section/Plan	The Princes Highway CAF encompasses the following lots: Lot 1 in DP449433, Lot 1 in DP659365, Lot 2 in DP659366, and Lot 2 in DP659367.		
Site Area	Approximately 2,180m2 (0.2 hectares).		
Current Land Zoning	B1: Neighbourhood Centre		
	SP2: Classified Road		
	Source: Bayside Local Environmental Plan 2021		
Final Land Zoning IN2: Light Industrial			
Current Land Use	Former 7-Eleven Service Station (734 and 736 Princes Highway) and adjacent footpaths (736 Princes Highway).		
Proposed Final Land Use	Mixed commercial (B1 zoning) and roadway (SP2 zoning).		
Surrounding Land	North: High density residential		
Use	East: Cross Lane followed by high density residential		
	South: President Avenue followed by St George TAFE		
	West: Princes Highway followed by combined commercial/high density residential		

Site identification details for neighbouring residential properties to the north and east of the site are included in Table 6.2.

#### Table 6.2 Site Identification Details of Neighbouring Residential Properties

ltem	Comment		
Address	2 President Avenue, Kogarah	732 Princes Highway, Kogarah	
Lot/Section/Plan	SP9486	SP9797	
Site Area	Approx. 998 m <sup>2</sup>	Approx. 1,158 m <sup>2</sup>	
Current Land Zoning Source: Bayside Local Environmental Plan 2021	R4 High Density Residential	R4 High Density Residential	
Current Land Use	Residential apartments with no living space on the ground floor (ie soil contact)	Residential apartments with living space on the ground floor in contact with soil	
Proposed Final Land Use	Residential apartments	Residential apartments	

# 6.2 SITE DESCRIPTION

At the time this report was written, the site was occupied by a disused service station and motor vehicle workshop comprising the following features:

- A centrally located L-shaped structure formerly used as a service station convenience store and motor vehicle workshop. The eastern and northern portions of the building were occupied by motor vehicle workshops. The buildings typically were of brick and metal construction. Concrete and asphalt hardstand was present across the site.
- Two awnings covering the former locations of fuel bowsers. The awnings extended south and west off the former convenience store.
- UPSS infrastructure remaining in-situ beneath the site comprises 13 USTs and associated pipework (fuel lines and vents). The USTs range in size from 4.27kL to 56kL and were used to store diesel and petroleum products. Cardno (2020) managed the in-situ decommissioning of all USTs and associated pipework, except 3 USTs and pipework that were found to have been previously decommissioned.
- The site and surrounding area were noted to slope gently down to the east.
- The site was enclosed by a combination of timber and galvanized steel fencing.

# 6.3 EPA DECLARATION

In July 2021, the NSW EPA declared the land at 734 Princes Highway, Kogarah as significantly contaminated under the CLM Act 1997. A summary of the Declaration has been made within Section 8.1.9.CGU has been appointed by TfNSW (site owner) to execute this RAP and validate that the site and land affected by contamination migrating from the site is suitable for their intended uses.

This RAP will form a Voluntary Management Proposal. A validation report will be prepared that summarises the remediation and assessment works required by the RAP. The validation report will be submitted to NSW EPA in consideration of repealing the Declaration.

# 7. ENVIRONMENTAL SETTING SUMMARY

Table 7.1 provides a summary of the environmental setting of the site as discussed in previous reports which are listed in Section 0. A description of the site at the time that this report was written is included in Section 6.2.

#### Table 7.1 Summary of Environmental Setting

Topography & Drainage	The site is stepped from 15 m Australian Height Datum (m AHD) in the south west corner and 12 m AHD in the north east corner. The site and neighbouring land surfaces are predominantly covered in hardstand with stormwater infrastructure responsible for drainage of water from the site. The site is identified as being in the catchment of Muddy Creek (a concrete lined drainage channel located approximately 800 m north) which feeds Cooks River near the mouth of Botany Bay, located approximately 3.25 km north east.
Hydrogeology	Based on the topography of the site and surrounds, the expected groundwater flow direction is to the east/north-east towards Rockdale Wetlands (630 m to the east). Groundwater recharge is likely to occur by infiltration through landscaped areas on residential properties upslope to the west. There is potential for recharge through leaky stormwater pipes along the Princes Highway. Standing water levels measured at the site in February 2021 (Cardno, 2021) ranged from 0.67 m below top of casing (m btoc) to 2.690 m btoc. A groundwater contour plan based on the groundwater levels during the Cardno GME (2020) indicated a groundwater flow direction of east. The contour plan is provided as Figure 2 in Appendix A. The site is not situated within the Botany Sands Drinking Water Exclusion Zone.
Regional Geology	The site is shown as being underlain by the Triassic, Hawkesbury Sandstone which is described as medium- to coarse-grained quartz sandstone with minor shale and laminite lenses (GS NSW, 2018). Cardno's borehole logs (included in Appendix C) reported bedrock at approximately 3 m below the current surface.
Soil Landscape	The soil landscape for the area is described by the NSW Planning, Industry and Environment Soil Landscape Series for Lucas Heights as "gently undulating crests and ridges on plateau surfaces of the Mittagong formation (alternating bands of shale and fine-grained sandstones). Local relief to 30 m, slopes <10%. Rock outcrop is absent. Extensively or completely cleared, dry sclerophyll low forest and woodland. Soil are described as moderately deep (50-150 cm), hardsetting Yellow Podzolic Soils and Yellow Soloths (Dy2.41); Yellow Earths (Gn2.24) on outer edges
Naturally Occurring Asbestos	There is a low probability of encountering naturally occurring asbestos (NOA) at the site within 10m of the land surface.
Fill materials	Borehole logs from previous intrusive investigations indicate the presence of fill materials beneath the site. The fill material is typically between 0.5 to 1.15 m thick and is comprised of gravelly sand that contained building rubble (concrete, bricks and asphalt).
Acid Sulfate Soils Risk and Classification	The site is shown in acid sulfate soil (ASS) planning maps (Rockdale LEP, 2011) as being within a Class 5 area for acid sulfate soils , these areas are defined as being within 500 m of an adjacent Class 1, 2, 3 or 4 land that is below 5 mAHD and are not reflective of risk of ASS on the Class 5 land. Development consent is required for Class 5 areas if the water table is likely to be lowered below 1 m AHD on the adjacent Class 1, 2, 3 or 4 land. A review of acid sulfate soil risk mapping (DLWC Map ref: Botany Bay 9130S3) identifies no risk of ASS at the Site but shows areas east of the Site, underlying Bicentennial Park as being a high risk of ASS at between <1 m to 3 m below ground level ASS formation in these areas has been

	associated primarily with aeolian depositional processes with estuarine process responsible in the vicinity of former wetland areas and some pockets of disturbed terrain also noted.
Groundwater Bore Search	A search of the WaterNSW Real-time Water Data register on 21 October 2020 identified three registered groundwater bores within a 500m radius of the Site, one approximately 400m upgradient to the north west and two approximately 150 m cross-gradient to the south east. Bores were licensed for monitoring purposes.
Underground services	A review of Dial Before You Dig (DBYD) plans indicate that buried services (optic fibre, gas, electricity, water exist within the footpaths to the west and south of the site and within Cross Lane to the east (sewer). Detailed underground service plans were not available for buried services at the site. A preliminary review of Dial Before You Dig (DBYD) plans does not indicate the use of ACM within the off-site buried services. It is possible that asbestos containing materials were historically used during installation of services at the site.
Neighbouring buildings	<ul><li>High density residential properties are located immediately north and across Cross Lane to the east. It does not appear that basements are present beneath these properties.</li><li>The ground floor of the apartment building to the north comprises crawlspace, enclosed carports and service rooms.</li><li>The ground floor of the apartment building to the east comprises residential units and enclosed carports.</li></ul>
Evidence of contamination recorded during previous investigations	Hydrocarbon impacted soil indicative of a diesel release was detected in the vicinity of the northern UST tank pit at depths ranging from 1.0 – 2.0mbgs Impacted soil indicative of a petrol release was detected adjacent to both the western and southern bowser areas and south-western USTs at depths ranging from 0.5 mbgs and extending to the water table at 2.0 mbgs LNAPL, likely related to diesel fuel, was observed in two wells: onsite well MW7 and offsite well MW19. LNAPL was also detected within the forecourt of the site at well MW11 with an apparent LNAPL thickness of 0.430 m. LNAPL was not detected during the most recent GME (December 2020).
Nearest sensitive receptors	The nearest sensitive receptors to potential contamination from the site are residents that live in the apartments on the northern and eastern sides of the site, trench/maintenance workers and Rockdale Wetlands.
Nearest surface water and groundwater receptors	The nearest surface water body is Rockdale Wetlands (freshwater), located 630 m east of the site. The portion of Muddy Creek located closest to the site is a modified concrete channel and is 730 m north of the site. Botany Bay (marine water) lies approximately 1,600 m to the east, and Kogarah Bay lies approximately 2,200 m south south-west of the site
Pollution hazards to the site	A Caltex service station that is present on the Princes Highway approximately 70m to the north- northwest of the site may pose a risk of polluting the site should a fuel spill occur.

# 8. SITE HISTORY SUMMARY

# 8.1 PREVIOUS REPORTS

Tetra Tech was provided with the following relevant Information Documents (INFO DOCs) and reports relating to the contamination status of the site:

- Aurecon Australasia Pty Ltd (Aurecon). M6 Stage 1 Tender Reference Design Report Revision 8. Prepared for Transport for NSW. Reference: M6S1-AUR-GN-RPT-0001\_Submission for RFT. Dated 24 April 2020. (INFO DOC 154).
- Aurecon. M6 Stage 1 Tender Reference Design Report Appendix F Remedial Action Plan. Reference: 504307 (M6S1 Remedial Action Plan\_Final). Dated 28 February 2020. (INFO DOC 161).
- WSP. Remediation Action Plan for UPSS replacement 7-Eleven Kogarah Service Station (Store ID: 2239) 734 Princes Highway Kogarah, NSW. Reference: 2201541D-CLM-REP-008 RevA. Dated 27 July 2016. (INFO DOC 490).
- Cardno Pty Ltd (Cardno). Contamination Data Report F6 Stage 1 Geotechnical Investigation. Prepared for Roads and Maritime Services. Reference: 80019028-RPT002-CFRRev0. Dated 17 May 2019. (INFO DOC 059).
- Cardno. Stage 2 Detailed Site Investigation (DSI). M6 Stage 1 743 Princes Highway, Rockdale NSW. Prepared for TfNSW. Reference: NE30054-R001-DSI\_734\_Princes\_Hwy-Rev2. Dated 10 September 2020 (INFO DOC 524).
- Cardno. 7-Eleven Petrol Station Remediation M6 Stage 1 Contamination Investigation. Interim UPSS Options Assessment. Prepared for TfNSW. Reference: 80220004 -112-007\_M6 UPSS Interim Options\_Rev3. Dated 19 August 2020 (INFO DOC 565).
- Transport for NSW. 7-Eleven Petrol Station Remediation Notification of Contaminated land at 734 Princes Highway, Rockdale - Letter to Environmental Protection Authority. Reference: REF: A35319053 Dated 17 December 2020. (INFO DOC 566).
- 7-Eleven Petrol Station Remediation Site Contamination Notification Form (section 60) for 734 Princes Highway, Rockdale. Dated 17 December 2020. (INFO DOC 567).
- 7-Eleven Petrol Station Remediation Site Contamination Notification Acknowledgement Letter from Environmental Protection Authority. Dated 12 January 2021. (INFO DOC 568).
- Cardno. Ground Gas Assessment Summary Report. Technical Memorandum. Dated 12 November 2020 (INFO DOC 569).
- Cardno. Preliminary Risk Assessment Report. Technical Memorandum. Dated 2 November 2020 (INFO DOC 570).
- Cardno. 7-Eleven Petrol Station Remediation M6 Stage 1 734 Princes Highway, Kogarah -Groundwater Monitoring Event September 2020. Reference: NE30054-R004-GME 734 Princes Hwy-Rev1. Dated 1 December 2020. (INFO DOC 571).
- Cardno. 7-Eleven Petrol Station Remediation Former 7-Eleven Service Station, 734 Princes Highway Kogarah - UPSS Decommissioning Validation Report - Revision 1. Reference: NE300800 - R001\_UPSS Decommissioning Validation Report\_Rev1. Dated 4 December 2020. (INFO DOC 572).
- Transport for NSW. 7-Eleven Schedule 11 Notification of former 7-Eleven site 734 Princes Highway Kogarah, 2117 Letter to SafeWork NSW. Dated 20 November 2020. (INFO DOC 578).
- Moore Management Pty Ltd (Moore). Future Demolition Strategy Former 7-Eleven Services Station, 734 Princes Highway Kogarah. Prepared for TfNSW. Reference: 20021-056 Future demolition strategy 220121. Revision 1. Dated 22 January 2021. (INFO DOC 579).
- Transport for NSW. 7-Eleven Notification of UPSS at 734 Princes Highway Letter to Bayside Council Dated 11 December 2020. (INFO DOC 580).
- Cardno. 7-Eleven MW19 Groundwater Monitoring Event. M6 Stage 1 743 Princes Highway, Kogarah NSW. Reference NE30054-MW19 GME February 2021-RevB. Dated 11 March 2021. (INFO DOC 592).

- NSW EPA. Proposed Declaration of Former 7-Eleven Service Station 734 Princes Highway, Kogarah. Reference DOC21/23705. Dated 1 March 2021. (INFO DOC 593).
- NSW EPA. Declaration of significantly contaminated land Section 11 of the Contaminated Land Management Act 1997. Declaration No. 20211101; Area No. 3478. Final. Dated 7 July 2021. (INFO DOC 594).

Tetra Tech, on behalf of CGU, prepared a Site Contamination Report (SCR) for the M6S1 Project in December 2021 (Ref: M6S1-COF-NWW-ENCT-RPT-670250 Revision C.02) that provided a detailed summary of relevant reports. Further revisions to the report are planned to account for additional site investigation that is presently being completed (unrelated to CAF C6). Key findings from the SCR are summarised below.

# 8.1.1 Info Doc 524 – Cardno Stage 2 DSI, 2020

Cardno carried out a DSI for the property at 734 and 736 Princes Highway, Kogarah NSW. The DSI was prepared for TfNSW in September 2020. The purpose and objective of the DSI were to inform the design and construction of the M6S1 project by assessing the extent of contamination at the site, provide an opinion on the suitability of the site for the proposed future use and the appropriate management of any contamination identified.

The DSI included:

- A desktop review of existing contamination related reports, and utilities and service plans.
- A site walkover.
- Sampling and analysis of soil from eight boreholes (CBH01 to CBH08) for contaminants of potential concern (COPC).
- Comparison of soil analytical results against:
  - HILs for commercial/industrial land use.
  - Soil HSLs for direct contact and vapour intrusion and inhalation for a commercial/industrial land use.
  - EILs and ESLs for a commercial/industrial land use.
  - Petroleum hydrocarbon management limits for a commercial/industrial land use.
- Development of a CSM based on the proposed temporary uses (road corridor construction, construction ancillary facility) and long term uses (roadway / slip lane and commercial land use) of the site.

At the time the DSI was carried out, the site comprised a non-operational service station and two former workshops with two canopies covering sections of the forecourt. As part of the assessment, Cardno considered previous contamination information presented in the following documents:

- A RAP prepared by WSP (Info Doc 490).
- A Remediation Summary Report prepared by Coffey in 2020 (Coffey (2020), Remediation Summary Report, 7-Eleven Kogarah Service Station (Store #2239), January 2020).
- A groundwater monitoring report prepared by Ventia in 2020 (Ventia (2020), Groundwater Monitoring Event Report, March 2020).
- A Phase 1 Environmental Site Assessment report prepared by JBS&G in 2020 (JBS&G, 2020), Phase 1 Environmental Site Assessment, 734 Princes Highway, Kogarah NSW, June 2020).
- A Technical Memorandum (Interim UPSS Options Assessment (Draft)) prepared by Cardno in 2020 (Info Doc 565).

A review of the Stage 2 DSI with respect to contamination indicates that:

- The site was previously used as a service station as well as a vehicle maintenance workshop since the 1950s.
- At the time the DSI was prepared there were:

- A total of 14 suspected or known USTs (denoted T1 to T14 on the Sheet A.6 in Appendix A of the report). The number of USTs included a 30kL LPG tank that would not have contributed to site contamination.
- Relatively small quantities of spoil (approximately 3m<sup>3</sup> of concrete in the south eastern portion of the site, and demolition rubble and general waste / rubbish observed underneath the eastern workshop).
- Previous investigations identified:
  - Soil at the site to be impacted with TRH (F1 (C6-C10 less BTEX) and F2 (>C10-C16 less naphthalene) fractions) and BTEX compounds.
  - LNAPL along the northern site boundary since 2013 in MW07 and off-site in MW19 (north of the site) in December 2019. LNAPL had been assumed to be associated with a diesel UST (T5) located in the central north of the site that had failed integrity testing in 2013 and was subsequently emptied of diesel fuel and abandoned in place.
  - Groundwater on and off-site to be impacted with dissolved phase TRH F1 and BTEXN.
  - Soil vapour at the site to be impacted with benzene.
- Remediation works were carried out by Coffey and InSite Remediation Services at the site between September 2017 and August 2019 to reduce the extent of LNAPL contamination and reduce the direct contact risk to identified on-site and off-site receptors. Remediation involved:
  - The installation of a 3 m deep, 10 m long gravel-filled groundwater interception trench on the eastern end of the northern boundary of the Site.
  - The installation of a groundwater extraction system (pneumatic, top-loading pump) and groundwater treatment system to remove dissolved phase hydrocarbons and LNAPL from the interception trench;
  - Five (5) groundwater monitoring events (GMEs), including bi-annual and pre- and post-remediation GMEs between September 2017 and August 2019.
- Information presented in Info Doc 580 indicates that TfNSW notified SafeWork NSW and Bayside Council
  of the abandonment of five (5) USTs that were utilised by 7-Eleven for commercial purposes. At the time
  of notification, TfNSW was not aware of the number of USTs at the site.
- Cardno (2020) compared soil analytical results obtained during the Stage 2 DSI against:
  - HILs for a commercial/industrial land use.
  - HSLs for direct contact and vapour intrusion and inhalation for a commercial/industrial land use.
  - HSLs for asbestos.
  - EILs and ESLs for a commercial/industrial land use.
  - Petroleum hydrocarbon management limits for a commercial/industrial land use.
- Cardno concluded that findings were consistent with previous investigations which included.
  - Widespread hydrocarbon impacts within site soils and groundwater. Soil impacts were found to be highest in the vicinity of UPSS infrastructure and in the smear zone of the shallow water table.
  - Non-friable asbestos was observed within one borehole along the northern boundary; however, demolition rubble was also observed within the fill material layer across much of the Site.
  - There is a potential unacceptable health risk to site occupants related to petroleum (benzene) vapour intrusion to indoor airspace during construction of the slip road. This potential risk could be mitigated by appropriate control measures including subfloor ventilation for any temporary site structures and strategically laying out the construction ancillary facility to avoid placing structures in areas of high vapour risk based on elevated hydrocarbon contamination in underlying soil and / or groundwater.
  - Off-site migration of hydrocarbons presented a potential vapour risk to residents in neighbouring residential structures.
- Cardno recommended:
  - Preparation of a RAP to address contamination issues associated with release of petroleum products into the subsurface from the UPSS.
  - A Soil Vapour Assessment be carried out to assess potential risks to on-site and off-site receptors from soil vapour impacts.

 Evaluating whether there was a duty to report contamination to the NSW EPA under the CLM Act 1995.

Figures (Sheets A.3, A.4 and A.5) and summary tables (Sheet B.1) from this Info Doc are provided in Appendix A and Appendix B, respectively.

# 8.1.2 Info Doc 565 – Cardno (7-Eleven UPSS Options) 2020

In August 2020, Cardno prepared an Interim UPSS Options Assessment for petroleum infrastructure located at 734 and 736 Princes Highway, Kogarah NSW. The objectives were to identify the UPSS infrastructure located at the site and carry out risk assessments for appropriate management of the UPSS with respect to human health and the environment.

Cardno carried out ground penetrating radar (GPR) at the site in June and confirmed the presence of 10 USTs and an additional four USTs were suspected to be present. Coffey notes that the locations of the USTs were consistent with those documented in the Cardno DSI (Info Doc 524).

The report included a Site Inspection Report prepared by Moore Management Pty Ltd (Moore Management). The purpose of the site inspection was to investigate the USTs at 734 and 736 Princes Highway, Kogarah, NSW. Coffey notes that with the exception of Tank A, the USTs identified by Moore Management correlated with the USTs identified by Cardno. A summary of the USTs identified by Moore Management is provided as Sheet A.6 in Appendix A.

Cardno made the following conclusions:

- The UPSS infrastructure currently located at the site presents environmental and human health risks as a result of historical storage of petroleum products.
- A site and scenario specific risk assessment was completed by a specialist contaminated sites consultant (Cardno) and a specialist dangerous goods consultant (Moore Management). Each risk assessment identified potential human health risk associated with hydrocarbon vapours from residual petroleum products and contaminated environmental media such as soil and groundwater. Potential pathways for exposure to on-site and off-site receptors included explosive atmospheres, vapour inhalation and direct contact.
- To manage the health and safety risks associated with petroleum products, and to comply with regulatory requirements, decommissioning of the UPSS infrastructure was required. UPSS removal was unable to occur prior to award of the design and construct (D&C) contract due to the potential risk of disrupting and/or damaging underground utilities within the footpath of President Avenue and the Princes Highway. The D&C works were expected to occur within 12 to 18 months under the M6 construction contract, and as such, TfNSW's preferred option to manage risk during the interim period was to degas and decommission the UPSS until eventual removal.
- In consideration of the risk assessment process, both Cardno and Moore Management recommended the interim UPSS management option of degassing and decommissioning through foam filling with a hydrophobic inert foam (e.g. UrePac® Rigid 33 45 (AUE276)). This was the preferred method as it eliminates risk to human health and the environment as so far as is reasonably practicable, and was compliant with the requirements of SafeWork NSW, the WHS Regulation and the UPSS Regulation.

TfNSW notified SafeWork NSW and Bayside Council of the abandonment of five USTs located at the site. It was recommended that TfNSW notify SafeWork NSW and Bayside Council of the additional known UST (5) and suspected UST (4).

# 8.1.3 Info Docs 566, 567 & 568 – 7-Eleven NSW EPA Notification

TfNSW submitted a Contaminated Land Notification Form in December 2020 to notify NSW EPA of contamination at the former 7-Eleven site (the President Avenue CAF (C6) under Section 60 of the CLM Act 1997. The cover letter (Info Doc 566) and notification form (Info Doc 567) indicate that:

- A DSI undertaken at the site, and subsequent monitoring revealed the presence of contaminants in groundwater at notifiable levels which were associated with historical on-site sources.
- TfNSW were in the process of undertaking further site investigations and preparing an Interim Site Management Plan.
- The type of contamination was stated to be "Petroleum hydrocarbons- TRH C6-C10 less naphthalene (F2)".
- The cause of contamination was stated to be: "The site was formerly operated as a 7-Eleven service station with on-site workshop facilities. Historical records received from the previous landowner indicate that the source of the contamination was due to product loss from UPSS located on the site, particularly a diesel tank located within the northern portion of the site."
- Aspects of the environment which were noted to be affected were "groundwater beneath the site and to the north of the site. Contamination has also been identified within soil material on site. Ongoing investigation work is being done to establish the boundaries of the plume."
- A risk management assessment was carried out in situ which confirmed that the risk to residents [off-site] was at acceptable levels.
- Supporting documentation provided was:
  - A Remediation Summary Report (7-Eleven Stores Pty Ltd Remediation Summary Report -Coffey -15 January 2020)
  - A groundwater monitoring event report (Info Doc 751)
  - M6 Stage 1 7-Eleven Soil Vapour Summary Report (Info Doc 569)
  - M6 Stage 1 7-Eleven Vapour Intrusion Assessment -Preliminary Risk Assessment Report (Info Doc 570).

The NSW EPA acknowledged receipt of the Contaminated Land Notification Form on 12 January 2021 (Info Doc 568) which indicated that the EPA:

- Had concerns regarding the movement of contamination from the site and the potential risks to off-site receptors including the occupants of nearby residential buildings.
- Acknowledged initial sampling showed there was no immediate risk, however further assessment, as well as proper delineation of the plume extent would be required.

# 8.1.4 Info Doc 569 and 570 – Cardno (7-Eleven Ground Gas) 2020

Cardno carried out a soil vapour assessment at the former service station at 734 Princes Highway, Kogarah, NSW. The objectives were to provide the TfNSW and regulatory bodies with a technical summary (in the form of a technical memorandum) of soil vapour work completed at the site, including a summary of the findings relevant to a preliminary human health risk assessment (Info Doc 570).

The scope of work included:

- Documenting a summary of the contamination status of the site prior to this investigation.
- Passive soil vapour sampling from 15 locations (SG01 to SG15 on and off-site) at a depth of approximately 0.5m below slab.
- Active soil vapour sampling from two soil vapour pins.
- Analysis of soil vapour samples for VOCs and TRH.
- Comparison of analytical results against
  - Soil vapour HSLs for residential land use for petroleum hydrocarbons.
  - USEPA Regional Screening Levels (residential air) for VOCs.
- Assessing the nature and extent of contamination associated with petroleum hydrocarbon impacts in groundwater
- Summarising the outcomes of the preliminary human health risk assessment (Info Doc 570).

#### Cardno concluded:

- The petroleum hydrocarbon plume was not likely to extend a significant distance beyond the site boundary to the south, west and east (consistent with groundwater flow to the northeast).
- The petroleum hydrocarbon plume was likely to extend off-site in a north-easterly direction, consistent with inferred groundwater flow direction.
- Risks to human health for current and future receptors associated with petroleum hydrocarbons in soil
  vapour off-site to the west, south and east were considered to be low, where concentrations at SG02 to
  SG09 were reported below residential and/or commercial/industrial criteria. It was noted that soil vapour
  concentrations at SG07 exceeded residential criteria, however, no residential receptors were present
  (both currently and associated with the M6 upgrade), so risk to human health was considered to be
  acceptably low at this location.
- Concentrations at SG07 were reported below commercial/industrial criteria, however, it was noted that TRH C6-C10 (410,000 μg/m<sup>3</sup>) were within the range which may pose an aesthetic risk for odours (5,300-625,000 μg/m<sup>3</sup>) (CRC, 2013).

Figures (Sheets A.7 and A.8) and results tables (Sheet B.7) from Info Doc 569 and Info Doc 570 are provided in Appendix A and Appendix B, respectively.

## 8.1.5 Info Doc 571 – Cardno (7-Eleven GME) 2020

Cardno completed a GME at 734 and 736 Princes Highway, Kogarah NSW. The purpose of the GME was to satisfy the TfNSW obligation to undertake routine groundwater monitoring in accordance with the POEO UPSS Regulation 2019. The scope of work included:

- Gauging, monitoring and sampling of nineteen (19) groundwater monitoring wells (eight (8) off-site and eleven (11) on site). Samples were collected using either HydraSleeves, bailers or a peristaltic pump.
- Analysis of groundwater samples for TRH and BTEXN.
- Comparison of groundwater results (including historical results dating back to November 2011) against
  - Freshwater trigger values (for 95% species protection).
  - Australian Drinking Water Guideline values (health and aesthetic).
  - Groundwater HSLs for vapour intrusion and inhalation for commercial/industrial and residential land uses.

Cardno concluded the following:

- Contaminant concentrations in groundwater were below the applicable ASC NEPM 2013 'commercial / industrial' HSL for vapour intrusion, indicating that a health risk to on-site workers due to vapour accumulation was unlikely.
- Cardno reported a TRH F2 concentration of 57,000 µg/L in off-site well MW19 (north of the site), which is significantly above the ASC NEPM 2013 'low to high density residential' HSL for vapour intrusion of 1,000 µg/L. With the exception of historical monitoring events where LNAPL was measured in MW19, the F2 concentration was greater than any previous monitoring event. It was considered that formation of LNAPL may occur if the TRH F2 concentration continues to increase, noting that LNAPL was last detected in MW19 in September 2017, prior to commissioning of the interception trench and groundwater pump out wells.
- Whilst MW12 and MW20 were located on-site, each well was situated near the northern boundary and in the direction of the neighbouring residential building, and as such were compared against the 'low to high density residential HSL'. Groundwater in each well contained a TRH F2 concentration above the residential HSL but were considerably lower than that detected in MW19. MW12 also contained a TRH F1 concentration of 2,000 µg/L, which exceeded the residential HSL for vapour intrusion of 1,000 µg/L.
- The groundwater level in monitoring wells MW19 and MW20 were measured at 0.67 m btoc and 1.134 m btoc, respectively. Based on concentrations a potential human health risk from vapour intrusion may be presented to residents in the neighbouring building to the north, however, it is noted that the ASC NEPM 2013 HSL for vapour intrusion are not intended to be applied to scenarios where the groundwater table is

<2 m bgl. Instead, Schedule B1 of the ASC NEPM 2013 recommends an alternative assessment approach of soil vapour measurements (rather than groundwater concentrations).

- Due to the shallow groundwater table and elevated concentrations of volatile contaminants, a potential human health risk from vapour intrusion and direct contact may be presented to those undertaking intrusive earthworks and maintenance on existing subsurface utility infrastructure, particularly to the north and north east of the site. Direct contact with the shallow aquifer is considered unlikely for residents to the north based on the high-density residential land use.
- Exceedances of the Australian Drinking Water Guidelines for human health and aesthetic properties were not considered problematic due to the unlikely scenario of groundwater being extracted for human consumption in close proximity to the site.
- Potential direct contact by ecological receptors, primarily via trees with roots that use shallow groundwater was considered the most direct off-site ecological risk. A visual inspection of the site and immediate surrounds did not identify significant ecological receptors and biota reliant, and vegetation was not observed to be under stress.

A figure (Sheet A.9) and results summary tables (Sheets B.2, B.3 and B.4) from this Info Doc are provided in Appendix A and Appendix B, respectively.

# 8.1.6 Info Doc 572 – Cardno (UPSS Decommissioning) 2020

Cardno prepared a UPSS Decommissioning Report which indicates:

- Ten 10 USTs were decommissioned in-situ using hydrophobic inert foam (UrePac® Rigid 33 45 (AUE276)) in October and November 2020. The tanks were denoted by Moore Management (the decommissioning contractor) as tanks A, E, F, G, H, I, J, K, L and M.
- Three USTs (tanks B, C & D) were abandoned by others (assumed to be filled with concrete or sand) in the past and the location of these tanks was not determined.
- Fill lines and vent lines associated with the decommissioned tanks were also filled with inert foam. Suction lines, where found, were also foam-filled.
- LPG piping was disconnected and open in the tank turret and the turret vent remained operational.

It was noted that suspected USTs labelled as T7 and T12 in Info Doc 565 were identified to be a singular tank and denoted as Tank A in Info Doc 572.

A plan provided in the report indicates the locations of the USTs (Tanks A to M) were generally consistent with those identified by Moore Management in Info Doc 565.

Furthermore, the report provided a summary of residual contamination based on a summary of a DSI (Info Doc 525) and a Groundwater Monitoring Event (Info Doc 571).

A figure (Sheet A.6) from this Info Doc that shows the UST layout is provided in Appendix A.

# 8.1.7 Info Doc 578 and 580 (UST Notifications)

A review of Info Doc 578 and Info Doc 580 indicates that TfNSW notified SafeWork NSW and Bayside Council that TfNSW acquired the property at 734 Princes Highway Kogarah (former 7-Eleven site), and that the property contains 13 USTs, 10 of which have been foam filled and the other three considered to be previously decommissioned in-situ.

# 8.1.8 Info Doc 592 (7-Eleven MW19 GME 2020)

Cardno carried out a GME of monitoring well MW19, located at 732 Princes Highway, Kogarah. The purpose of the GME was to monitor contaminant concentrations in groundwater at MW19, satisfying TfNSWs obligation to undertake routine groundwater monitoring in accordance with the POEO UPSS Regulation 2019. Sampling of the well was carried out on 2 occasions (14 December 2020 and 1 February 2021) using

HydraSleeves<sup>™</sup> and a low flow peristaltic pump to facilitate the assessment of sampling equipment contributing to elevated concentrations of CoPC. Samples were analysed for TRH and BTEXN compounds and analytical results were compared against:

- Freshwater trigger values (for 95% species protection).
- Australian Drinking Water Guideline values (health and aesthetic).
- Groundwater HSLs for vapour intrusion and inhalation for commercial/industrial and residential land uses.

Cardno made the following conclusions:

- Off-site well MW19 contains an TRH F2 concentration in excess of the ASC NEPM 2013 'low to high density residential' HSL for vapour intrusion of 1,000 µg/L. TRH F1 concentrations are only marginally below the ASC NEPM 2013 criteria and need to be closely monitored during future GME.
- The groundwater level in monitoring well MW19 was measured at 0.63m BTOC and it is noted that the ASC NEPM 2013 HSL for vapour intrusion are not intended to be applied to scenarios where the groundwater table is <2 mbgl. Instead, Schedule B1 of the ASC NEPM 2013 recommends an alternative assessment approach of soil vapour measurements (rather than groundwater concentrations).
- Due to the shallow groundwater table and elevated concentrations of volatile contaminants, ongoing
  groundwater monitoring is required to assess the potential human health risk from vapour intrusion and
  direct contact for those undertaking intrusive earthworks and maintenance on existing subsurface utility
  infrastructure, particularly to the north and north east of the site. Direct contact with the shallow aquifer is
  considered possible for residents to the north based on the shallow groundwater table (0.63m BTOC).
- Exceedances of the Australian Drinking Water Guidelines for human health and aesthetic properties are not considered problematic due to the unlikely scenario of groundwater being extracted for human consumption in close proximity to the site.
- Potential direct contact by ecological receptors, primarily via trees with roots that use shallow groundwater is the most direct off-site ecological risk. A visual inspection of the Site and immediate surrounds did not identify significant ecological receptors and biota reliant, and vegetation was not observed to be under stress.
- Whilst preliminary in nature, comparison of analytical results gathered utilising HydraSleeve and low-flow peristaltic pump indicate that the existing HydraSleeve contained within MW19 may be attributing elevated TRH concentrations and significant variability in results. Organic particulate and scum on the interior and exterior of the HydraSleeve were considered a secondary source of contamination rendering the equipment unsuitable for ongoing monitoring.

Cardno also made a series of recommendations, the following of which are noteworthy in the context of the M6S1 Project:

- Continued groundwater monitoring in accordance with the POEO UPSS Regulation 2019.
- Future rounds of monitoring be undertaken utilising a low-flow sampling method such as peristaltic pump.
- TfNSW should consider further delineation of the plume to the north and northeast direction from the site boundary.

Results summary tables (Sheets B.5 and B.6) from this Info Doc are provided Appendix B.

# 8.1.9 Info Doc 594 (EPA Declaration)

On 7 July 2021, NSW EPA declared the land at 734 Princes Highway, Kogarah as significantly contaminated under the CLM Act 1997. The land was described as Lot 2 in Deposited Plan (DP) 659366, Lot 2 in DP659367 and Lot 1 in DP659365.

The NSW EPA declared that the land is contaminated with petroleum hydrocarbon (mainly diesel products) and benzene in such a way as to warrant regulation for the following reasons:

• Soil and groundwater beneath the Land are contaminated with petroleum hydrocarbons from the former operation of the service station. The contamination has migrated beyond the boundaries of the Land.

- The contaminants have been identified to the north of the Land in groundwater and soil vapour at concentrations which are increasing, and in excess of criteria which is protective of human health.
- Although modelling has shown that the concentrations of volatile petroleum hydrocarbons beneath the
  adjacent residential apartment building are unlikely to pose an unacceptable risk to the occupants through
  inhalation, further investigation and confirmation is required.
- There are potential vapour inhalation and direct contact risks to those performing subsurface works or accessing underground utilities nearby the site.
- Further assessment is required to better understand the extent of the contamination to the north of the Land, and the potential risks to off-site receptors over the extent of the groundwater plume. Management may be required to prevent the further migration of contamination from the Land and to address any identified off-site risks.

The final NSW EPA Declaration of Significantly Contaminated Land is provided in Appendix E.

# 8.2 SUMMARY OF CONTAMINATION

A summary of the extent of soil and groundwater contamination at the site was provided in the SCR (Coffey, 2021). The following sections summarise the residual contamination at the site and are based on a review of the above contamination summaries, as well as other relevant reports referenced in Section 8.1.

# 8.2.1 UPSS and Past Remediation Infrastructure

At least 13 USTs and associated pipework are present at the site. Ten USTs were decommissioned in 2020 by foam-filling and the remaining 3 USTs were decommissioned prior to 2020 by filling with concrete or sand. The soil and groundwater surrounding the in-situ UPSS has not adequately been assessed and poses a contamination risk. Figures labelled Sheet A.6 and Sheet A.10 within Appendix A show the layout of the UPSS. A summary of the tanks that feed each dispenser is shown on Sheet A.10 (Tank Schedule).

Groundwater remediation was carried out at the site between 2017 and 2019 following the failure of diesel tank T5 (Tank D on Sheet A.6) and product line during integrity testing in 2013. Groundwater remediation included the installation of a groundwater interception trench, groundwater extraction and treatment system to reduce the mass of dissolved phase hydrocarbons and LNAPL migrating off-site in groundwater. The groundwater extraction system comprised a passive skimmer units within four groundwater extraction wells for the removal of LNAPL which was expected to form within a 3 m deep, 10 m long gravel-filled groundwater interception trench on the eastern end of the northern boundary of the site. 129,728 litres (L) of impacted groundwater was extracted during trench construction and system operation. Treated water was either disposed offsite at licensed facilities or to sewer under a trade waste agreement. The system ran for approximately 13 months from November 2017 to July 2019. At the conclusion of the groundwater extraction program LNAPL was not detected with a measurable thickness in the trench in April 2019, or in any monitoring well during the August 2019 GME. The absence of LNAPL in monitoring wells indicated a reduced direct contact risk to onsite and offsite receptors where excavations intercept groundwater. The groundwater interception trench remains in-situ. The location of the trench is shown on the Sheet A.11 in Appendix A.

# 8.2.2 Soil

A layer of fill material lies beneath the site that is typically between 0.5 to 1.15 m thick (up to 2 m at one sampling location) and is comprised of gravelly sand that contained building rubble (concrete, bricks and asphalt). One fragment of non-friable asbestos was encountered within the fill at one borehole near the northern boundary during the Stage 2 DSI (Cardno, 2020). The fill materials overlie residual sandy clays, which are underlain by sandstone bedrock. Bedrock was generally encountered at depths between 2.7 m to 3.25 m BGL; one boring location reported bedrock at 4.3 m BGL that was likely within a tank pit. Hydrocarbon (fuel) odours were reported within fill and residual soils during the Stage 2 DSI at all 8 sampling locations. PID

readings exceeded 100ppm at all sampling locations except one, with a maximum reading of 1,727 ppm near the former southern bowser island. Results from soil samples that were reported above the adopted human health criteria for F1 TRH and/or benzene were located near the southern bowsers, near the entrance to the former vehicle maintenance garage and at the northern site boundary (on either side of the former workshop). The soil impacts were reported between 1 to 2 m BGL.

It was reported that hydrocarbon impacted soils are likely widespread across the site (including in unassessed areas). The most impacted soils have been encountered in the vicinity of UPSS infrastructure and in the smear zone of the shallow water table.

Table 8-1 (below) from the Stage 2 DSI report (Info Doc 524) summarises soil results that exceed the adopted human health criteria. Sheets A.3 and A.4 from the Stage 2 DSI (provided in Appendix A) shows the borehole locations and locations where adopted criteria were exceeded, respectively. Soil results summary tables from the Stage 2 DSI are included as Sheet B.1 in Appendix B.

		F1: C6-C10 mg/kg	Benzene mg/kg	Asbestos Comment
EQL		20	0.1	
HIL, Commercial/Industrial D		-	-	No visible asbestos at surface
HSL Commercial/Industrial D, for Vapour Intrusion, Sand – 1-2 m		370		
Sample ID	Matrix			
CBH01-2.0	Natural Soil	380	-	-
CBH02-2.0	Natural Soil	2100	8.4	-
CBH06-0.05-0.1-A	Building Material	-	-	Chrysotile asbestos detected
CBH06-2.0	Natural Soil	3000	11	-
CBH08-1.0	Natural Soil	450	-	-

Table 8-1 Identified exceedances against human health criteria exceedances (table to be viewed in colour)

Even though Cardno (2020) identified only a single fragment of ACM within fill materials near the northern site boundary, there is a risk that a large volume of fill at the site may be contaminated by asbestos. This is because:

- The fill was described as including building rubble (concrete, bricks, asphalt), which indicates there is a high risk of asbestos containing materials (ACM) being present.
- Only boreholes were used to investigate the site, which is a technique that typically under- estimates the extent of ACM impact.
- No test pits were used to investigate the presence and extent of ACM in fill at the site.
- The presence of ACM at the top of the fill layer could not be assessed because the site was covered by concrete pavements and building slabs.
- Structures at the site include ACM, which poses a risk of contaminating the ground surface as a result of demolition work.
- There is a risk that buried services at the site include ACM.

# 8.2.3 Groundwater

Shallow groundwater is generally encountered around 1.5 m BGL in an unconfined, phreatic aquifer situated within sandy clays. The majority of groundwater flow is located below the fill layer and is inferred to flow towards the east. A rising head test was conducted at MW004 by OTEK in 2013 (*Follow up Soil and* 

*Groundwater Investigation, 7-Eleven Service Station (Store No. 2239) 736 Princes Highway, Kogarah, NSW.* Ref: 4112129. Dated 4 April 2013). OTEK (2013) calculated the following values:

- Hydraulic gradient: 0.017m/m between MW1 and MW2 and 0.086m/m between MW2 and MW3.
- K value: 5.6 x 10<sup>-6</sup>m/s.
- Flow velocity 0.08 to 0.4 m/year.

The k value indicates a low permeability aquifer (Lee et al, 1983)<sup>2</sup> which would make groundwater extraction for beneficial use impractical and potential inflow to basements would likely be a small quantity.

As a result of incidental release of petroleum products during historical operation of a petroleum service station and vehicle workshop on the site, LNAPL has historically been reported at the site and groundwater remediation was undertaken to prevent off-site migration of LNAPL at the northern eastern portion of the site between 2017 to 2019. LNAPL has not been observed on groundwater at the site since 2018.

Contaminant concentrations in groundwater were below the applicable ASC NEPM 'commercial / industrial' HSL for vapour intrusion during a GME undertaken by Cardno in September 2020, indicating that a health risk to on-site workers due to vapour accumulation is unlikely. Reported volatile hydrocarbon concentrations in air in the crawl space and garages of the adjacent property to the north were well below 10% of the Lower Explosive Limit for individual BTEX compounds

The application of HSL-A/B to the neighbouring residential property to the north has not considered the context of the indoor airspace to which the exposure from vapour intrusion may occur. The vapour intrusion risk setting is within the enclosed carports and crawl space/service rooms and does not affect residential spaces. The affected spaces should be compared to HSL-D. Results obtained from MW19 (off-site well) and MW12 & MW20 (within the site, near the northern site boundary) during GMEs undertaken by Cardno in September 2020 (all monitoring wells) and December & February 2021 (MW19 only) did not exceed the HSL-D criteria.

Groundwater results along the down-gradient (eastern) boundary did not exceed the HSL-A/B criteria applicable for assessing potential vapour intrusion risk to off-site residential receptors in that direction.

Multiple rounds of groundwater monitoring were undertaken at off-site well MW19. Results indicated that the use of the existing HydraSleeve to obtain the sample was contributing to detection of elevated hydrocarbon concentrations. Sampling was subsequently undertaken using low-flow methods and a significant reduction in hydrocarbon concentrations was noted. Table 7-2 below is taken from INFO DOC 592 and shows the reduction in concentrations using different sampling methods.

<sup>&</sup>lt;sup>2</sup> Chapter 4 in Lee IK, White W and Ingles OG; *Geotechnical Engineering*. Pitman 1983.

Table 7-2	Identified exceedances	against human he	ealth criteria exceedances	(table to be viewed in colour)
		<b>J</b>		

	TRH F2	Benzene	Ethylbenzene
	μg/L	μg/L	μg/L
EQL	50	1	1
NEPM (2013) HSL Comm/Ind D, Sand (2-4m)	NL	5,000	NL
NEPM (2013) HSL Resi A&B, Sand (2-4m)	1,000	800	NL
ADWG 2011 Health	-	1	300
ADWG 2011 Aesthetic	-	-	3
14 December 2020 GME			
MW19*	25,000	4	-
QA100 (intra-lab duplicate)	67,000	4	-
QC100 (inter-lab duplicate)	35,000	4	4
1 February 2021 GME			
MW19-HS (Eurofins)	6,400	2	-
MW19-HS (Envirolab)	6,500	3	-
MW19-PP (Eurofins)	1,700	3	-
MW19-PP (Envirolab)	1,900	4	-

TRH F1: C6-C10 less BTEX

TRH F2: >C10-C16 less Naphthalene

\* offsite well

HS: HydraSleeve

PP: Peristaltic Pump

A potential human health risk from vapour intrusion and direct contact may arise for workers undertaking intrusive earthworks and maintenance on existing shallow subsurface utilities, particularly to the north and north east of the site.

The off-site extent of the groundwater plume (hydrocarbon impact) is not currently accurately defined to the north of the site due to the presence of a residential apartment building. However, soil vapour results <HSL-A/B at the north eastern boundary of the neighbouring residential property (sample location SG01) provide a point of delineation for potentially unacceptable health risk posed by petroleum contaminated groundwater considering the SWL is likely <2m (based on SWL of approximately 1.5 mBGL at MW18) and the assessable media in this scenario is soil vapour.

The following tables summarise the residual groundwater data (included as Sheets B.3 and B.5 in Appendix B):

- Table 7-2 within the September 2020 GME report (Info Doc 571).
- Table 7-2 within the December 2020/February 2021 GME Report (Info Doc 592).

Groundwater results summary tables from the Cardno GME undertaken in September 2020 (Info Doc 571) are included as Sheet B.2 in Appendix B. A figure from the Cardno GME shows the locations of all monitoring wells at the site and is provided as Sheet A.9 in Appendix A.

No storage or use of aqueous film forming foams (AFFFs) containing per- and poly-fluoroalkyl substances (PFAS) on site has been identified and land uses up-gradient are not expected to be potential PFAS sources.

# 8.2.4 Soil vapour

A preliminary risk assessment (Info Doc 570) was undertaken by Cardno (November 2020) to evaluate the potential vapour intrusion risk from hydrocarbons in groundwater to off-site receptors associated with the residential apartment building at 732 Princes Highway Kogarah NSW, situated immediately north of the site.

The risk assessment was limited to the assessment of vapour intrusion because groundwater was not known to be extracted for use. Direct contact pathways were considered not to be complete.

The outcomes of the preliminary risk assessment for a residential exposure scenario indicated that concentrations of volatile petroleum hydrocarbons in soil vapour and groundwater beneath the offsite residential apartment building were not likely to pose an unacceptable risk to onsite residents. Whilst the risks were not likely to pose an unacceptable risk under a residential exposure setting, the appropriate HSL-D exposure setting for the enclosed carports and crawlspace/service rooms was not considered but is a "less sensitive" outcome.

The NSW EPA requested confirmation of the preliminary risk assessment outcomes.

## 8.2.5 Hazardous building materials

Section 7.5 of the Site Remediation Requirements Report (included as Appendix A in Info Doc 579) references a Hazardous Materials Survey undertaken by Clearsafe Environmental Solutions Pty Ltd (Clearsafe). The survey identified asbestos, lead based paint, synthetic mineral fibre, suspected polychlorinated biphenyl (PCB) containing capacitors, and suspected ozone depleting substances / synthetic greenhouse gases.

All hazardous materials must be removed from the existing site buildings prior to demolition and remediation works commencing. Removal is to be undertaken by suitably qualified, experienced and licensed removal contractors.

A hazardous materials management plan must be prepared for any buildings containing hazardous materials and include control measures such as training and communication, signage, responsibilities, administrative controls etc.

# 9. INTEGRITY OF INFORMATION

Tetra Tech reviewed the consultant's data quality assurance (QA) assessments and consider that the consultants' conclusions that data is suitable was reasonable, based on Coffey's experience of working on the site as well as broad experience of assessment of service station sites. Coffey adopted the consultants' data for preparation of this RAP.

Based on a review of previous reports, including data integrity, and considering the proposed development, Tetra Tech considers that there is sufficient reliable data and information to commence remedial planning activities.

# 10. CONCEPTUAL SITE MODEL

If not managed appropriately, existing contamination could pose a potential risk to human health and/or the environment during redevelopment or future use of the site and to neighbouring residents to the north. For an environmental or human health risk from contamination to be present, there must be a plausible pollutant linkage between the source and a receptor by means of a transport mechanism (pathway). Plausible pollutant linkages concerning off-site receptors need to consider both existing conditions and reasonably foreseeable conditions allowed under current or potential future zoning.

Table 9.1 presents a summary of the conceptual site model (CSM) based on the findings of previous site assessments. The potential pollutant linkage is based on the proposed development and associated disturbance of media prior to, and during, remediation/management.

# 10.1 CONTAMINATION SOURCES AND CONTAMINANTS OF CONCERN

Based on the findings of previous investigations, the existing soil and groundwater contamination associated with historical leaks of petroleum products from UPSS and vehicle maintenance activities were identified as the likely sources of contamination. LNAPL and dissolved phase contamination are also considered primary sources of contamination.

The primary contaminants of concern are TRH, BTEX, PAH and lead associated with the above activities. Asbestos containing materials (ACM) were identified at one location within fill materials on the site.

# 10.2 CONTAMINANT TRANSPORT AND EXPOSURE MECHANISMS

The key environmental pathways and exposure routes by which contaminants identified at the site may reach ecological and/or human receptors are assessed to include:

- Accidental ingestion of soil and groundwater.
- Dermal contact with soil and groundwater.
- Inhalation of dusts and vapours.
- Infiltration and leaching from unsaturated soils to shallow groundwater.
- Vertical and lateral contaminant migration through the saturated zone.
- Groundwater discharge to surface water
- Service utilities that could act as preferential migration pathways

# **10.3 POTENTIAL RECEPTORS**

The following current or future human receptors are identified:

- Future sub-surface construction and maintenance workers.
- On-site future commercial workers.
- Off-site users of residential properties north of the site.
- Down-gradient users of groundwater.

Aquatic species (plant and animal) where groundwater from the site discharges into a surface water body are potential ecological receptors.

# 10.4 PLAUSIBLE SOURCE-PATHWAY-RECEPTOR LINKAGES

Table 10.1 shows the conceptual site model for known/potential receptors within and adjoining the site.

#### Table 10.1 Conceptual Site Model Summary

Source / Media	Pathway	Receptors	Complete pathway?	Comments
Leaks and spills from the former UPSS infrastructure and mechanical workshop Petroleum hydrocarbon impacted soils and groundwater	Dermal contact / accidental ingestion of impacted soil and/or groundwater Inhalation of vapours Inhalation of soil related dust	Future <b>on-site</b> sub- surface construction and maintenance workers	Ρ	Potentially complete exposure pathways during site remediation activities are unlikely if managed by following procedures set out in a CEMP.
	Inhalation of vapours	Future <b>on-site</b> commercial site users	р	Site validation is required to meet the intended future commercial land use. A long-term environmental management plan (LTEMP) will be implemented to manage residual risks, if required.
	Dermal contact Ingestion of groundwater Inhalation of vapours	Future <b>off-site</b> sub- surface construction and maintenance workers	р	Delineation and characterisation of the off-site plume is required to assess potential risks to off-site receptors.
	Dermal contact Ingestion of groundwater	Down-gradient users of groundwater	р	
	Lateral (off-site) contaminant migration Inhalation of vapours Dermal contact with	<b>Off-site</b> residential properties north and east of the site	р	NSW EPA has requested further investigation to confirm the risk to neighbouring residential receptors from vapour intrusion is acceptable. Delineation and characterisation of the off-site plume is required.
	groundwater			Direct contact with the shallow aquifer is unlikely for neighbouring human receptors based on the existing high- density residential land use. However, consideration will be given to reasonably foreseeable future developments consistent with current zoning.

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		Down-gradient users of extracted groundwater, since there are no restrictions on the beneficial reuse of extracted groundwater in the local area	р	Whilst there are no restrictions on beneficial groundwater extraction, it is unlikely groundwater would be extracted considering the low yield of the aquifer and medium-high density residential setting. The low permeability of the aquifer is indicated by absence of registered abstraction bores within 500m downgradient from the site.
	Lateral (off-site) contaminant migration	Uptake by off-site aquatic species	р	Delineation and characterisation of the off-site plume is required to assess potential risks to off-site receptors
Asbestos impacted fill, asbestos spilt by demolition work, buried services containing ACM	Inhalation of airborne respirable fibres	Future <b>on-site</b> sub- surface construction and maintenance workers	р	Previous investigations have relied upon boreholes during investigative works. This method does not allow adequate assessment for asbestos. Friable asbestos fibres have not been identified in soil samples to date. Management of asbestos should follow procedures within CGU's Unexpected Contaminated Land and Asbestos Finds Procedure.
Votes:       P = plausible complete pathways         p = partially complete pathway depending on site conditions/exposure scenario         n = pathway not complete				
# 10.5 DATA GAPS

Based on a review of available historical reports, the following data gaps have been identified:

- Adequate delineation and characterisation of the off-site down-gradient plume and any associated potential risk/s to off-site receptors.
- Adequate assessment of the presence of ACM within fill materials across the site.
- NSW EPA has requested further investigation to confirm the acceptable risk to neighbouring residential receptors from vapour intrusion.
- Whilst impacts are likely to extend beneath the site structures, an assessment of groundwater and soil
  has not previously been completed in these areas. Potential sources of contamination (eg fill materials of
  unknown quality/origin) may be present that have not previously been assessed.
- Cardno identified in Info Doc 94 that UPSS infrastructure has historically prevented assessment of
  impacts within or near their installation footprint. In compliance with NSW EPA guidance for UPSS
  Regulations, soil assessment should be undertaken of the floor and walls of removal excavations to
  determine the impacts in these areas.

A strategy to assess each data gap has been incorporated into the validation plan in Section 14.

# 11. REMEDIAL GOALS AND OPTIONS APPRAISAL

# 11.1 GOALS OF THE REMEDIAL WORK

The goals of the remedial works are to:

- Mitigate potentially unacceptable risks to human health and the environment from soil and groundwater in consideration of the proposed redevelopment and surrounding residential land use; and
- Undertake remedial works in a safe, environmentally sound manner that causes minimal disruption to the construction workers, future site workers and the neighbouring land users.
- Remediate the site in the short term to make it suitable as a Construction Ancillary Facility (CAF) to be used by the M6 Stage 1 Project.
- Remediate the site so that at the end of the Project it is suitable as a road corridor meeting commercial / industrial D land use under the NEPM D guidelines and no significant contamination continues to migrate from the Site.
- Confirm that any off-site contamination attributable to the site do not pose an unacceptable potential environmental risk.
- Remediate the site so that the Declaration can be lifted as soon as practicable.
- Remediate the site so that a Section A1 site audit statement can be issued prior to the completion of the Project.

# 11.2 REMEDIATION POLICY

Remediation policy in NSW is set by the SEPP55 guidelines, which require, among other things that remediation is practical and feasible.

Remediation policy in NSW is also set by the CLM Act 1997, which requires among other things:

- Contaminated land is managed with regard to the principles of ecologically sustainable development as specified in Section 3(2); and
- Ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs as described in Section 9(3).

Remediation policy in NSW is also set by the NSW EPA (2017) Guidelines for the NSW Site Auditor Scheme (3rd edition) (Section 4.3.1), which require that proposed remediation is technically feasible, environmentally justifiable and consistent with relevant laws, policies and guidelines. Regard needs to be given to:

- National and NSW remediation policies.
- The POEO Act and Regulations.
- Other legislation such as the Environmentally Hazardous Chemicals Act 1985 (EHC Act) and the Environmental Planning and Assessment Act.
- Relevant technical guidance documents issued by the EPA.

Remediation policy with respect to groundwater in NSW is also set by the NSW EPA (2007) Guidelines for the Assessment and Management of Groundwater Contamination, which require among other things that the clean-up objectives for contaminated groundwater should be established in the following preferential order (Section 4):

- 1. Clean up so natural background water quality is restored.
- 2. Clean up to protect the relevant environmental values of groundwater, and human and ecological health.
- 3. Clean up to the extent practicable.

The preferred order of options for remediation, as stated in S6(16) of the ASC NEPM is:

- On-site treatment of the contamination so that it is destroyed, or the associated risk is reduced to an
  acceptable level; and
- Off-site treatment of excavated soil, so that the contamination is destroyed or the associated risk is reduced to an acceptable level, after which soil is returned to the site; or

If the above is not practicable:

- Consolidation and isolation of the soil on site by containment with a properly designed barrier; and
- Removal of contaminated material to an approved site or facility, followed, where necessary, by replacement with appropriate material; or
- Where the assessment indicates remediation would have no net environmental benefit or would have a net adverse environmental effect, implementation of an appropriate management strategy.

The guidance also notes that if remediation is likely to cause a greater adverse effect than leaving the site undisturbed, remediation should not proceed.

# 11.3 REMEDIAL OPTIONS APPRAISAL

To achieve the remedial goals, there are a number of remedial options considered to be appropriate, each with advantages and disadvantages. Remediation may comprise implementation of one or a combination of the remedial management measures described in Table 11.1. The removal of UPSS is required.

The appropriateness of a particular option would vary depending on a range of factors including:

- Space available on-site during remediation and construction.
- Air quality, noise, and impact on adjacent site users.
- Nature and extent of contamination.
- The amenability of on-site contaminants to treatment or natural attenuation.
- Geological and hydrogeological conditions.
- Type(s) of contamination, including the impacted media.
- Human health and environmental risks (both during and post redevelopment).

The selection of appropriate remedial techniques would also need to consider a range of issues including:

• The proposed development designs.

- Effectiveness of remediation will the solution meet the remedial objectives.
- Contractor experience with remedial technology/procedures.
- Sustainability waste generation, stakeholder acceptance of the remedial solution etc.
- Acceptable timeframes.
- Cost effectiveness.

### Table 11.1: Remedial Options Appraisal for Petroleum Hydrocarbon Contamination

Remedial Methodology	Description	Advantages	Disadvantages	Suitable
On-site/off- site treatment (chemical or biological)	This method generally involves injection or mixing chemical or biological reagents with the impacted soil to degrade contaminants or immobilise contaminants. Methods may include air sparging / biosparging, bioventing, bioslurping, enhanced bioremediation, soil vapour extraction and in-situ chemical oxidation (ISCO)	Soils successfully treated could be validated for reuse on-site or disposed of off- site.	Addition of reagents generally increases volumes of material requiring future management on-site or removal off-site. Biological and other in-situ treatments require significant periods of time (several months) for monitoring and validating the effects of the treatment.	Νο
On-site/off- site mechanical treatment	May include excavation and turning of impacted soil to volatilise contaminants.	Low cost, reduces the amount of soil requiring off- site disposal	NSW EPA policy requires capture of volatile compounds which would substantially increase costs of mechanical treatment. Not always effective, particularly for longer-chain TRH (such as diesel impacts reported at this site). Limited space on site. Would likely generate offensive odours that may impact surrounding high- density residential receptors	No
Source Removal	Excavate impacted materials. Transport directly to a licensed landfill facility. Re-instate site with clean validated fill material.	Effectively removes the contamination. Removes contaminant source zone/s impacting on groundwater. Allows targeted extraction of highly impacted groundwater Does not leave a legacy of contamination that requires	Higher cost relative to other options due to the haulage and disposal costs of waste soil. A less environmentally sustainable method.	Yes

		management over longer term. Relatively fast method.		
Capping and on-going Management	Impacted soils are managed through the placement of an effective capping layer to separate site users from contaminated soils. The capping layer can be constructed from building slabs, pavement and/or a layer of clean soil imported to site	Can be incorporated into the detailed design plans and meet remedial objectives. Avoids high CAPEX costs making option more cost effective. Relatively fast method.	Contamination remains in- situ, posing potential constraints on future development and allows source zone/s to continue impacting on media (soil and groundwater and secondary effects from potential soil vapour intrusion from groundwater) Long term management of capping layer and of contamination required to remain effective, which is not consistent with future divestment of the site after construction is completed. Notification of contamination on land titles.	No
Cut-off walls Permeable reactive barriers	Prevents further migration of petroleum contaminated groundwater from the site	Contains contamination to a manageable area and prevents off-site migration to sensitive receptors	High cost. Ongoing monitoring and maintenance Contamination remains in- situ and may pose potential ongoing risks onsite that may require long-term management.	No
Monitored natural attenuation (MNA)	MNA is the monitoring of naturally occurring physical, chemical and biological processes to demonstrate via multiple lines of evidence that one or any combination of those processes reduce the mass, concentration, flux or toxicity of polluting substances in groundwater, to an acceptable level within an acceptable timeframe	Low cost Reduced generation of remediation wastes	Requires significant periods of time (several months) for monitoring and validation of the effects natural attenuation. Does not remove contamination source	Yes, to manage residual hydrocarbon contamination following remediation (if required)

Method	Description	Advantages	Disadvantages	Suitable
Source Removal	Excavate impacted materials. Transport directly to a licensed landfill facility. Re-instate site with clean validated fill material.	Effectively removes the contamination. Does not leave a legacy of contamination that requires management over longer term. Relatively fast method.	Higher CAPEX cost relative to capping and ongoing management due to the haulage and disposal of waste soil. A less environmentally sustainable method.	Yes
Capping and on-going Management	Impacted soils are managed through the placement of an effective capping layer to separate site users from contaminated soils. The capping layer can be constructed from building slabs, pavement and/or a layer of clean soil imported to site	Can be incorporated into the detailed design plans and meet remedial objectives. Avoids high CAPEX costs making option more cost effective. Relatively fast method.	Contamination remains in-situ, posing potential constraints on future development. Long term management of capping layer required to remain effective. Notification of contamination on land titles.	No

### Table 11.2: Remedial Options Appraisal for Asbestos (where significant quantities are encountered)

# 12. REMEDIATION CRITERIA

# 12.1 SOIL VALIDATION

# 12.1.1 Hydrocarbons

This RAP has been prepared for assessing the hydrocarbon impacts in soil at the site after the removal of the UPSS. The potential human receptors relevant to this investigation are the future site users (M6S1 workers and future commercial site users) and excavation and maintenance workers.

The exposure pathways identified were vapour intrusion into future buildings and shallow trenches, dermal contact, inhalation of impacted dust and accidental ingestion. Based on the potential on-site receptors identified and the exposure pathways, the primary remediation criteria are the soil HSLs for vapour intrusion risks and direct contact pathways for a commercial/industrial land use (HSL-D). For the intrusive maintenance workers, the recommended assessment criteria for vapour and direct contact pathways provided in the Cooperative Research Council for Contamination Assessment and Remediation for the Environment (CRC CARE) Technical Report no. 10 (Friebel and Nadebaum, 2011) have been adopted.

The TPH management limits within Schedule B1 of the ASC NEPM (2013) for a commercial/industrial setting are applicable as screening levels to assess the potential risks associated with the formation of LNAPL, fire & explosion hazards and effects on buried infrastructure e.g. penetration of, or damage to, in-ground services by hydrocarbons. Groundwater is generally encountered around 1.5 m BGL in a sandy clay aquifer, so the management limits for fine soils have been adopted. Table 12.3 summarises the management limits.

Following the removal of the UPSS infrastructure, excavations will be reinstated with imported fill, and then paved with concrete. Because the site will be used as a road and subsequently for commercial use, the ecological screening levels (for the protection of plants and terrestrial organisms) for petroleum hydrocarbons have limited relevance and have not been included as remediation criteria.

The HSLs for the commercial site users and the intrusive maintenance workers are summarised in Table 12.1 and Table 12.2, respectively.

# Table 12.1 Soil health screening levels for vapour intrusion into buildings and direct contact- commercial land use

	Commercial/industrial land use (HSL in coarse soil)				Direct contact
Chemical	0 to < 1 m	1 m to < 2 m	2 m to < 4 m	≥ 4 m	Direct contact
F1 TRH (C6-C10 less BTEX)	260	370	630	NL	26,000
F2 TRH (>C10-C16 less naphthalene)	NL	NL	NL	NL	20,000
>C16 – C34	NA	NA	NA	NA	27,000
>C34 – C40	NA	NA	NA	NA	38,000
Benzene	3	3	3	3	430
Toluene	NL	NL	NL	NL	99,000
Ethylbenzene	NL	NL	NL	NL	27,000
Xylenes	230	NL	NL	NL	81,000
Naphthalene	NL	NL	NL	NL	11,000

Notes:

NL – Not limiting

NA – Not applicable – low volatility

# Table 12.2 Soil health screening levels for vapour intrusion into trenches and direct contact – intrusive maintenance workers

	HSL FOR INTRUSIVE MAINTENANCE WORKER (SHALLOW			TRENCH) (mg/kg)
	Vap	our intrusion (Coarse	soil)	Direct contact
Chemical	0 to < 2 m	2 to < 4 m	> 4 m	
F1 TRH (C6-C10 less BTEX)	NL	NL	NL	82,000
TRH >C10-C16	NL	NL	NL	62,000
>C16 – C34	NA	NA	NA	85,000
>C34 – C40	NA	NA	NA	120,000
Benzene	77	160	NL	1,100
Toluene	NL	NL	NL	120,000
Ethylbenzene	NL	NL	NL	85,000
Xylenes	NL	NL	NL	130,000
Naphthalene	NL	NL	NL	29,000

Table 12.3 TPH management limits for commercial/industrial land use and coarse soil

TPH Fraction	Management limit (mg/kg)
F1 C6-C10*	700
F2 >C10-C16*	1,000
F3 >C16-C34	3,500
F4 >C34-C40	10,000

\* Separate management limits for BTEX and naphthalene are not available hence these should not be subtracted from the relevant fractions to obtain F1 and F2

# 12.1.2 PAHs

The health investigation levels for commercial/ industrial land use (HIL-D) within the ASC NEPM (2013) should be used as validation criteria. Table 12.7 summarises the validation criteria for PAHs.

### Table 12.4 Health-based investigation levels for HIL-D - PAHs

Chemical name	HIL – commercial / industrial land use (mg/kg)
Carcinogenic PAHs (as BaP TEQ)	40
Total PAHs	4000

# 12.1.3 Asbestos

Even though Cardno (2020) identified only a single fragment of ACM within fill materials near the northern site boundary, there is a risk that a large volume of fill at the site may be contaminated by asbestos. This is because:

• The fill was described as including building rubble (concrete, bricks, asphalt), which indicates there is a high risk of asbestos containing materials (ACM) being present.

- Only boreholes were used to investigate the site, which is a technique that typically under- estimates the extent of ACM impact.
- No test pits were used to investigate the presence and extent of ACM in fill at the site.
- The presence of ACM at the top of the fill layer could not be assessed because the site was covered by concrete pavements and building slabs.
- Structures at the site include ACM, which poses a risk of contaminating the ground surface as a result of demolition work.
- There is a risk that buried services at the site include ACM conduits.

To assist in the appropriate management of potential residual contamination, validation samples collected from fill materials that are to remain in-situ should be analysed for asbestos in soil. The absence of visible ACM in surface soil is the validation criteria, however on-site management of ACM may be considered depending on location and quantities of impacted fill. CGU's Unexpected Contaminated Land and Asbestos Finds Procedure sets out the procedures for managing asbestos impacted soils.

The health screening levels for asbestos in soil (Table 7 in Schedule B1 of the ASC NEPM, 2013) for commercial/industrial land use (HSL D) should be used as the asbestos remediation criteria.

	Health Screening Level (w/w)			
Form of asbestos	Residential A <sup>1</sup>	Residential B <sup>2</sup>	Recreational C <sup>3</sup>	Commercial/ Industrial D <sup>4</sup>
Bonded ACM	0.01%	0.04%	0.02%	0.05%
FA and AF <sup>5</sup> (friable asbestos)	0.001%			
All forms of asbestos	No visible asbestos for surface soil			

Table 12.5 - Health screening levels for asbestos in soil

- 1. Residential A with garden/accessible soil also includes children's day care centres, preschools and primary schools.
- 2. Residential B with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.
- 3. Recreational C includes public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and unpaved footpaths.
- 4. Commercial/industrial D includes premises such as shops, offices, factories and industrial sites.
- The screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures (refer Section 4.10). This screening level is not applicable to free fibres.

# 12.2 SOIL VAPOUR

As an initial screening tool, the soil vapour results shall be compared to the ASC NEPM (NEPC, 2013) soil vapour Health Screening Levels (HSLs) for vapour intrusion. The HSL-A&B land use setting was adopted to assess potential risks to occupants within the neighbouring residential premises. The criteria shall be applied to the relevant depths of soil vapour bores and sub-slab vapour pins. The HSL criteria for 'sand' soil type has been adopted.

The CRC CARE (2011) HSL for intrusive maintenance workers has also been included as a screening tool.

The adopted soil vapour assessment criteria are summarised in Table 12.6.

Contaminant	HSL A&B Low – High Density Residential 0 m to <1m, Sand	HSL D – Commercial/industrial 0 m to <1m, Sand	Intrusive Maintenance Worker 0 m to <2 m
Benzene	1	4	760
Ethylbenzene	330	1300	NL
Toluene	1300	4,800	NL
Total Xylenes	220	840	NL
Naphthalene	0.8	3	880
TRH C6-C10 less BTEX (F1)	180	680	180,000
TRH >C10-C16 less naphthalene (F2)	130	500	NL

### Table 12.6 - Adopted Soil Vapour Assessment Criteria (mg/m<sup>3</sup>)

NL – non-limiting

# 12.3 WASTE CLASSIFICATION

Surplus spoil that cannot be reused on-site and requires off-site disposal will be managed in accordance with the relevant sections of the POEO Waste Regulation 2014, including but not limited to:

- Classifying the waste in accordance with the NSW EPA Waste Classification Guidelines 2014.
- Transporting the waste by an appropriately licensed waste contractor.
- Disposing of the waste at an appropriately licensed waste disposal facility.
- Tracking of waste using the NSW EPA's online "WasteLocate" system, where required.
- All excavated soil is to be tracked from site to licensed disposal facility.

Analysis for asbestos in soil should be included as part of waste classification where fill materials require offsite disposal.

# 12.4 GROUNDWATER INVESTIGATION LEVELS

This RAP does not include specific remediation of groundwater at the site. The removal of UPSS and source zone contamination will likely contribute to a reduction in previously reported groundwater impacts. Groundwater monitoring will be undertaken following site remediation activities as part of the validation requirements and in accordance with NSW DECCW (2009) *Guidelines for Implementing the Protection of the Environment Operation (Underground Petroleum Storage System) Regulation – Technical note: Site Validation Reporting.* A soil vapour assessment should be undertaken where concentrations of COPC in the post-remediation GME indicate a potential soil vapour intrusion risk to future commercial site users. Furthermore, confirmation of the soil vapour risk to neighbouring residential receptors will be undertaken during site validation works to address a request from the NSW EPA.

Appropriate Groundwater Assessment Criteria (GAC) have been selected based on health risk for future site use (commercial / industrial) and environmental impact. It is unlikely that groundwater would be extracted for beneficial use because sustained extraction would be impracticable from the shallow residual clay aquifer. Recreational criteria have also not been considered because the wetland down-gradient to the east of the site is not considered suitable for recreational use.

It should be noted that the selected GAC are not intended as clean-up levels but are adopted as investigation levels in the context of the framework for risk-based assessment of groundwater contamination (i.e. levels above which further assessment or action may be required). Clean-up goals for site remediation are provided in Section 11.

Selected GAC are discussed in Section 12.4.2.

# 12.4.1 Assessment of Environmental Values

Schedule B1 of the amended ASC NEPM (2013) describes the process involved in identifying the likely environmental values which must be considered when assessing groundwater at contaminated sites. Based on this, the below assessment of relevant environmental values has been made:

• The closest identified potential ecological receptor to groundwater contamination is Rockdale Wetlands, located approximately 630 m east of the site.

Based on the separation distance and opportunity for infiltration of oxygenated water from the surface to the shallow aquifer, it is considered that aquatic species (plant and animal) are not likely to be a receptor of groundwater contamination from beneath the site because of natural attenuation processes, such as biodegradation and dispersion.

# 12.4.2 Adopted Investigation Levels for Groundwater Assessment

### **Environmental Health**

The Groundwater Investigation Level (GILs) presented in the Schedule B1 of the ASC NEPM (NEPC, 2013) include values for protection of 95% of freshwater species in a slightly to moderately disturbed ecosystem.

Where contaminants are potentially bioaccumulative, investigation levels for the protection of 99% of species will be used.

Based on the above, GILs for the protection of 95% of freshwater species will be adopted for the majority of contaminants (excluding TRH), and 99% of freshwater species for bioaccumulative contaminants.

Where there is insufficient data to derive high reliability trigger values for various contaminants, low reliability trigger values will be adopted.

### Human Health for Overlying Land Use

For protection of human health, TRH and BTEXN concentrations were also screened against the Groundwater HSLs for vapour intrusion into indoor air from the relevant depth and soil matrix applicable to "Commercial / Industrial" land use (HSL-D) from the amended NEPM (NEPC, 2013). Groundwater levels onsite have ranged during previous GMEs, generally between approximately 0.6 m btoc to 2.7 m btoc. The appropriate depth range should be adopted in selecting the appropriate HSL for each monitoring well.

To derive a set of values for offsite assessment, two exposure scenarios require adoption:

- HSL-A/B residential setting has been adopted for the offsite properties to the east.
- HSL-D commercial/industrial setting has been adopted for the exposure scenario within the crawlspace, enclosed carports and service rooms within the adjoining residential property immediately north of the site.

The predominant overlying material above the recorded depth to water is coarse grained soils, therefore the HSL values for sandy soils should be adopted for groundwater assessment.

It is noted that the groundwater HSLs are applicable where depth to groundwater >2 m. Where impacted groundwater is reported >LOR at depths <2 m BGL, soil vapour assessment may be necessary.

Adopted assessment criteria are summarised in Table 12.7.

Contaminant	Commercial/ Industrial (Sand, 2 to <4 m) <sup>2</sup>	Low – high density residential (Sand, 2 to <4 m) <sup>3</sup>	95% Species protection (freshwater)⁴
Benzene	5,000	800	950
Toluene	NL	NL	NE
Ethylbenzene	NL	NL	NE
Total Xylenes	NL	NL	200^
TRH(C <sub>6</sub> -C <sub>10</sub> ) less BTEX (F1)	6,000	1,000	NE
TRH >C10-C16 less naphthalene (F2)	NL	1,000	NE
Naphthalene	NL	NL	16

### Table 12.7 Groundwater health screening and investigation levels $\mu g/L$

1 = NEPC (2013) Groundwater Investigation Levels for recreational exposure – based on 10x the applicable drinking water guideline

2 = NEPC (2013) Groundwater Health Screening Levels for Vapour Intrusion, HSL-D (Commercial / industrial), Sand, 2 m to <4 m) 3 = NEPC (2013) Groundwater Health Screening Levels for Vapour Intrusion, HSL-A/B (Low – high density residential), Sand, 2 m to <4 m)

<4 m)

4 = NEPC (2013) Groundwater Investigation Levels for freshwater ecosystems

NE = Not established

NL = Not establishNL = Not limiting

^ = As p-xylene

# 12.5 ENVIRONMENTAL CRITERIA DURING REMEDIATION WORK

CGU developed a Contamination CEMP Sub-plan (M6S1-CGU-NWW-ENPE-PLN-000413) to describe the procedures to manage contamination that may be encountered during construction activities. The document provides procedures for managing contaminated land, including:

- The management of contaminated material movements (excavation and stockpiling)
- Surface water run-off.
- Dust generation and airborne contaminants.
- Decontamination of vehicles, plant and machinery.
- Unexpected contamination.
- Personal protective equipment (PPE).
- Training and inductions.
- Storage of materials

There are no specific environmental criteria provided within the document. Coffey expects that these criteria will be developed by CGU within a site-specific 'work pack.' The work pack should include the following:

- Regular (1hr intervals) PID monitoring at the site boundaries during excavation works. Work should stop if PID levels are ≥10ppm. Continue monitoring and re-start work only when levels drop below 10ppm.
- Stop work if odorous soils are encountered and apply odour suppressant as required. This should be completed even if PID levels are <10ppm.
- Monitor dust generation. Wet down areas that generate dust. Stop work if visible dust leaves the site boundaries and only continue once the source of dust has been identified and managed appropriately.
- Cover stockpiles with a material to prevent dust and sediment run-off.
- Install and maintain environmental controls in accordance with Section 13.2.

# 13. PREFERRED REMEDIAL STRATEGY

Based upon a review of appropriate remedial technologies and considering the construction timelines, the preferred remedial strategy to mitigate contamination risks associated with petroleum hydrocarbons impacted soil and water and contaminated fill is to use a combination of remedial methods.

A test pit investigation is included to assess the extent and nature of asbestos contamination within fill materials including potential impact from demolition of above ground structures and pavement. The investigation must be completed prior to the commencement of work below ground surface. Excavation works may proceed once the nature and extent of asbestos contamination in thew fill materials has been defined and appropriate control measures are implemented (where required). The excavation works involve:

- Removal of UPSS infrastructure.
- Excavation (source removal) and off-site disposal of heavily impacted soils and replacement with appropriate fill material to achieve design levels.
- Extraction and off-site disposal of highly impacted groundwater accumulating in excavations.
- Validation of residual soil contamination to a level commensurate with the proposed future land uses (road and commercial) and similar validation of imported materials.

Groundwater monitoring will follow soil validation works and may include the assessment of monitored natural attenuation (MNA) to address residual groundwater contamination, if required.

A amended plan would be developed, if required, to address the potential for additional remediation work to be undertaken at the site and surrounding off-site areas.

# 13.1 PROPOSED SEQUENCE OF WORKS

Tetra Tech remedial works will entail the following sequence of events:

- 1. Preliminaries (Outlined in Section Preliminaries13.1.1).
- 2. Site Establishment (Outlined in Section 13.1.2).
- 3. Test pit investigation to assess the nature and extent of asbestos contamination (Section 13.1.3)
- 4. UPSS Excavation and Off-site Disposal (Outlined in Section 13.1.3).
- 5. Remediation Validation (Outlined in Section 14).
- 6. Preparation of a Validation Report (Outlined in Section Error! Reference source not found.).
- 7. Groundwater and soil vapour monitoring
- 8. Preparation of a LTEMP, if required to manage residual contamination.

The sequence above relies on the prior demolition of buildings in accordance with a Hazardous Materials Management Plan.

# 13.1.1 Preliminaries

The site is regulated under the CLM Act and this RAP proposes Voluntary Management in accordance with Section 17 of the CLM Act.

This RAP must be submitted to the Planning Secretary for information prior to undertaking remediation in accordance with Condition E112 of the Infrastructure Approval.

Prior to any works commencing on the site, notifications to third parties and obtaining any licences, approvals and permits will need to be undertaken.

Confirmation that the contractor conducting the UPSS removal works is licensed and experienced in the removal of fuel infrastructure and the remediation of contaminated soils, and has adequate safety equipment

to secure the work area and minimise potential danger to personnel and the public for the duration of the works.

The final version of the RAP has been approved by the Site Auditor, as required by Condition E112 in the Planning Approval for the M6S1 Project.

An asbestos clearance certificate for each demolition area shall be provided by a Licensed Asbestos Assessor (LAA) following the completion of demolition work certifying that no asbestos remains at the ground surface. A copy of each asbestos clearance certificate shall be included in the validation report.

Site inspection reports shall be issued by the Environmental Consultant following the completion of demolition and site clearance work that identifies suspect areas where additional investigation / remediation / validation needs to be undertaken. This inspection may be incorporated into the test pitting investigation described in Section 13.1.3.

Prior to earthworks commencing, all relevant licences and approvals shall be obtained from the relevant authorities.

All preliminary work needs to be completed prior to the commencement of Site Establishment or later works.

# 13.1.2 Site Establishment

It is considered that site establishment procedures may include:

- Work area fencing, warning signage and temporary site facilities.
- Occupational health and safety controls.
- Environmental monitoring and controls.
- Preparing stockpiling areas.
- Vehicular transit routes onto and off the site.
- Location, isolation, relocation, protection and/or termination of services potentially affected by the remediation/redevelopment works.
- Establishing contingency planning and controls to address unexpected finds.

Site establishment works associated with environmental management are to be undertaken in accordance with a Construction Environmental Management Plan (CEMP) prepared in accordance with Part C of the Planning Approval and endorsed by CGU's Environmental Representative (ER) and then submitted to the Planning Secretary for approval no later than one month prior to the commencement of works at CAF C6.

# 13.1.3 Test pitting investigation

Following the demolition of buildings and removal of pavements across the site, the excavation of up to 8 test pits through fill materials shall be completed to inspect for visible ACM. The number of test pits meets the minimum requirements within the NSW EPA (1995) Sampling Design Guidelines for the site area of approximately 0.2 Ha. Test pit locations shall be chosen based on a grid pattern, avoiding buried UPSS/other infrastructure. Test pits shall be excavated through fill materials until underlying natural soils are encountered (estimated maximum depth of 1.15m). Excavated soils shall be assessed for the presence of visible ACM. Where ACM is encountered, the test pit is to be backfilled in the same order in which it was excavated.

# 13.1.4 UPSS Removal, Excavation & Offsite Disposal of Contaminated Soil

All remediation works should be undertaken by licensed contractors, experienced in the decommissioning and removal of fuel infrastructure and the excavation and remediation of contaminated soils. As a minimum, the Australian Standard (AS) *The removal of underground petroleum storage tanks* (AS 4976:2008) is applicable to the work and a copy should be obtained by the contractor. Where an applicable standard, legislation, regulation or code of practice has been updated, the updated version shall be applied.

The remediation works should be supervised by an experienced environmental scientist, particularly to assess the contamination status of the soil excavated from around the tanks, and to determine whether further excavation of tank pit walls and floors are required to remove heavily contaminated soil.

The known USTs requiring removal are shown on a Figure that was included the Moore Management *Future Demolition Report* (Sheet A.6 provided in Appendix A). Ten of the USTs have been decommissioned via inert foam-filling and another 3 have been filled with either sand or concrete. A summary of the estimated capacity and status of each UST is provided in Table 13.1.

UST ID	Estimated capacity (L)	Status
Tank A	5,000	Abandoned in 2020 with inert foam
Tank B	13,638 (3,000 Gal)	Abandonment before 2020.
Tank C	13,638 (3,000 Gal)	abandonment in-situ. Tank assumed
Tank D	21,400 (4,700 Gal)	to still be present.
Tank E	2,300	Abandoned in 2020 with inert foam
Tank F	14,500	Abandoned in 2020 with inert foam
Tank G	19,500	Abandoned in 2020 with inert foam
Tank H	60,000	Abandoned in 2020 with inert foam
Tank I	45,000	Abandoned in 2020 with inert foam
Tank J	30,000	Abandoned in 2020 with inert foam
Tank K	24,000	Abandoned in 2020 with inert foam
Tank L	34,000	Abandoned in 2020 with inert foam
Tank M	5,000	Abandoned in 2020 with inert foam

### Table 13.1 Summary of UST capacity

Task-specific work procedures and associated Safe Work Method Statements (SWMS) are to be prepared by the remediation contractor. The procedures should include methodologies that will assess the requirement for excavation wall stabilisation to prevent damage to surrounding structures including underground services, fences and structures on neighbouring properties. Where underground services are to be removed, conduits are to be assessed for the presence of asbestos and removed under asbestos working conditions. An inspection of trenches where asbestos conduit was present is to be carried out by and LAA and an asbestos clearance certificate issued certifying that no asbestos remains.

The procedure for UST removal will generally comprise the following tasks:

- A Lower Explosive Limit (LEL) meter will be utilised to monitor the potential for explosive atmospheres throughout the remediation works, including within USTs and excavations.
- Set up of stockpile areas including installation of environmental controls in accordance with the CEMP (ref: M6S1-CGU-NWW-ENPE-PLN-000413).
- Breakout of overlying pavements and segregation of concrete wastes for off-site disposal (recycling if concrete is not stained).
- Safely uncover tank access points (dip/fill points) and fuel lines. Segregate obviously impacted (stained/odorous) soils from unimpacted soils and place in separate stockpile areas.
- For tanks that are suspected to have been abandoned by filling with concrete or sand (USTs B, C and D):

- Confirm contents and remove any residual liquid wastes within the tank and associated interconnecting fuel lines.
- Disconnection and removal of pipework.
- De-gassing of the USTs in accordance with the methodology in AS 4976.
- For tanks abandoned in-situ to AS4976, de-gassing of the tank is not required, as the tank void has been filled with inert polyurethane foam. Care should still be exercised if the tank vessel is to be cut opened as there is potential for hydrocarbons to be present on the inside surface of the tank.
- Excavation of soils surrounding the USTs, again segregating impacted from unimpacted soils into separate stockpiles.
- Management of groundwater entering the excavation, as required and in accordance with the CGU's Groundwater CEMP Sub-plan (Ref: M6S1-CGU-NWW-ENPE-PLN-000412) where applicable.
- Lifting of the UST from the excavation for disposal. USTs will be labelled in accordance with AS 4976.
- USTs that have been foam-filled are unable to be sent for scrap metal recycling and must be disposed of at an appropriately licenced landfill facility. It is likely that large capacity USTs will require cutting into smaller pieces for removal from the site.
- If possible, the USTs that have been decommissioned with concrete or sand may be cut open and the contents extracted. Should this be undertaken, the UST can be recycled.
- The Site Auditor expects to inspect the final condition of each UST excavation prior to backfilling

The UST excavations are estimated to generate approximately 800 m<sup>3</sup> of soil based on the number of tanks and estimated tank pit dimensions.

Excavation of other UPSS or vehicle maintenance related infrastructure and surrounding impacted soils, including:

- Remote fill points.
- Fuel pipework.
- Vent lines.
- Bowser islands.
- Vehicle maintenance hoists.
- Oily water separator and associated pit.
- Former remediation trench along the northern boundary.

Excavations of other UPSS infrastructure and vehicle maintenance hoists (potentially 4 of) may generate up to 190 m<sup>3</sup> of impacted soils based on anticipated depths and dimensions of excavations.

Excavated soils shall be segregated based on field observations, such as soil type (fill vs residual soils), field PID readings and evidence of contamination, such as odours and staining.

The estimated volumes of excavated materials do not include additional excavation required if significant contamination is encountered. Soils showing indications of contamination following removal of tanks and surrounding soils (PID >100ppm, odorous and/or stained soils) should be excavated prior to obtaining validation samples.

Stockpiled soils shall be sampled and assessed for potential beneficial on-site reuse or off-site disposal, including issuance of relevant waste classification certificates (refer Section12.2). Hydrocarbon contamination should be analysed using discrete samples. Composite sampling is not recommended because of the potential for some hydrocarbon fractions to volatilise and be lost through mixing.

Excavated soils removed from the site are to be tracked from site to licensed disposal facility.

# 13.1.5 Monitoring of Remediation Work

CGU's nominated remediation contractor will carry out the remediation works. Tetra Tech Coffey is the nominated Project Environmental Consultant and will monitor the remediation contractor during contaminated land related activities. Regular weekly inspections of the work shall be undertaken by the Project Environmental Consultant throughout remediation work. The Project Environmental Consultant will document the inspections adequately to provide evidence that remediation work was undertaken in accordance with the RAP, or otherwise.

The Project Environmental Consultant shall advise the Site Auditor as soon as practicable of any Unexpected Find or non-compliance with the RAP.

# 13.1.6 Record Keeping

During contaminated soil removal from site, the following information shall be recorded (i.e. on a Materials Tracking Plan) and maintained by the remediation contractor and provided to CGU and the Environmental Consultant no later than the completion of the remedial works:

- Landfill dockets and Environmental Protection Licence (EPL) number.
- Date and time of disposal.
- Name and address of landfill.
- Amount of waste (volume or weighed mass).
- Type of waste (waste classification).
- Material description.
- Transport company including truck registration.
- HAZMAT reports.
- Asbestos site clearance issued by a LAA following demolition / site clearing.
- UPSS decommissioning records (during remediation works).
- Site inspection reports prepared by the Project Environmental Consultant.
- Material tracking data.
- UST tank destruction certificates or landfill disposal receipts

Similarly, for removal of contaminated water from the site, the following information shall be recorded:

- Licensed transporter.
- Date and quantity.
- Waste classification code and tracking docket.
- Receipt from licensed treatment facility.

Each excavation will be sequentially numbered by the remediation contractor and a daily record made of location, depth and plan dimensions at the end of the daily activity. A similar record shall be maintained for stockpiles of contaminated soil including estimated quantity of soil in each stockpile. The recorded excavation numbers shall be made available to the Project Environmental Consultant for the purpose of labelling validation samples.

# 13.1.7 Long Term Management

A LTEMP would be prepared where residual contamination that poses an unacceptable potential environmental or health risk requires ongoing management and monitoring.

NSW EPA approval would be sought to rescind the Declaration depending on the nature and extent of the contamination requiring potential long-term management.

# 13.2 ENVIRONMENTAL CONTROLS DURING REMEDIATION WORKS

The management of odours, volatile gas emissions, dust, surface water and ponded groundwater during remediation work should be undertaken by the remediation contractor in accordance with CGU's Contamination CEMP (M6S1-CGU-NWW-ENPE-PLN-000413) and incorporated by CGU into the work pack for the site works. The following procedures (taken from WSP (2016) RAP) should be considered by CGU for inclusion within the work procedures.

# 13.2.1 Odours and vapours

Remediation works may release vapours and odours into the atmosphere, particularly during tank excavations and loading out of impacted stockpiles. The remediation contractor should monitor prevailing weather conditions to assess the potential effects on surrounding sensitive receptors and site workers. If potentially offensive odours are detected that could reasonably be detected off-site (regardless of measured PID levels), site works should cease until the odours are reduced or controlled. The application of odour suppressants should be considered to control potentially offensive odours.

An environmental scientist (or hygienist) shall monitor ambient air quality around open excavations and excavated soils with a PID to ensure ambient air concentrations can be managed appropriately. If PID readings within the site exceed 50ppm then work should temporarily cease, and workers should move upwind of the UST excavation until the PID readings decrease. If PID readings above 50ppm persist then odour/vapour control measures should be implemented. Alternative control measures could also be implemented, including the following:

- Wetting down the excavated soil with the use of water sprays containing odour suppressant.
- Workers may be fitted with vapour masks or respirators for continuation of site works in the area, provided PID levels are acceptable at the site boundary and an assessment of odours indicates that surrounding sensitive receptors would not be impacted.

The Project Environmental Consultant shall undertake PID monitoring at the site boundaries, recording the locations and PID measurements at 30-minute intervals during excavation works and when stockpiled soils are being moved or loaded out. If PID readings at the site boundary exceed 5ppm or persistent odours are observed at the site boundary then work should cease, and odour/vapour control measures should be implemented. PID monitoring results shall be recorded by the Project Environmental Consultant and submitted for review by the remediation contractor on days where PID monitoring is required.

All complaints regarding off-site odour or vapour shall be investigated by the Project Environmental Consultant as soon as practicable, as directed by CGU.

# 13.2.2 Dust

Dust shall be visually monitored by the remediation contractor during all earthworks. If dust is being generated with potential for it to carry beyond the site boundary, areas of earthworks will be sprayed with water to reduce dust levels. Soil to be stockpiled should be covered or wetted down to minimise dust generation.

During loading and transport of any soil off-site, truck wheels should be cleaned or driven through a constructed wash bay or similar control (e.g. rumble grid) to prevent potentially contaminated soil from being transported onto local roads.

# 13.2.3 Plant and machinery

The remediation contractor is responsible for maintaining all plant and machinery in good working order to prevent potential leaks and spills of fuels, oils and other fluids necessary for machinery maintenance, including appropriate storage of dangerous goods.

# 13.2.4 Noise

Noise levels may increase during remediation works from the use of on-site and off-site mechanical equipment. To mitigate any noise which may arise as a result of site works, all works should be carried out during normal working hours and in accordance with NSW regulations.

Noise control measures to be implemented during the remediation works may include:

- Specified entry controls for construction vehicles entering and leaving the site
- Suitable construction techniques and methodologies
- Use of quieter equipment
- Restricted use of reversing alarms and all equipment should be fitted with alarm types that adjust output sound levels according to the prevailing ambient noise level.

Practical measures will be taken to minimise generation of noise, and contact information for enquires or complaints will be posted on the site entrance gate.

# 13.2.5 Water and sediment management

### 13.2.5.1 Surface water

Soil stockpiled during excavation works should be suitably contained to prevent run-off of any potentially contaminated water or soil to the surrounding environment, including the stormwater system. Control measures should be established to prevent surface water run-off entering and leaving excavation and stockpile areas. Control measures may include:

- Temporary bunding or diversion drains
- Impermeable sheeting placed under and/or over stockpiles
- Silt fences/silt socks to surround stockpiles
- Protection of existing drains with silt fencing/sand bags.

These mitigation measures should be implemented and regularly inspected by the remediation contractor to ensure that they are effective and are improved if necessary.

### Subsurface seepage and accumulated excavation water

Excavations surfaces are expected to be left open for short durations only, where possible, to minimise the potential of any surface water entering work areas. If water does accumulate (e.g. rainfall or groundwater ingress), then it will require removal prior to validation and reinstatement.

The remediation contractor shall use a licensed liquid waste disposal contractor to transport wastewater as Liquid Waste (typically Code J120 for water) to a licensed water treatment facility, where the wastewater will be disposed, and disposal documentation generated. The remediation contractor shall record the wastewater disposal information in accordance with Section 13.1.6.

### 13.2.5.2 Sediment

Drains, gutters, roads and access ways shall be maintained free of sediment in accordance with regulatory requirements. Where required, gutters and roadways shall be swept regularly to keep them free from

sediment. As for surface water, control measures should be implemented and maintained to an effective standard.

The erosion and sediment control put in place during the civil works must be undertaken in accordance with:

- POEO Act
- The "Blue Book" Managing Urban Stormwater: Soils and Construction (Landcom, 2004).

# 13.2.6 Equipment and cleaning operations

Throughout the site remediation project, controls will be placed on the operation and movement of equipment. General procedures that will be implemented include:

- Excavation equipment will be washed in an environmentally sound manner prior to leaving the site.
- Effective truck wheel-washing facilities will be provided, if necessary, to ensure that contaminated soil is not tracked off-site.
- No trucks or equipment carrying contaminated soils should be allowed to move across unsealed ground surfaces, except across designated transport corridors.

All contaminated soil requiring off-site disposal will be transported to an appropriate landfill facility. All transport trucks loaded with contaminated soil for off-site disposal should be sealed and the load completely/securely covered to prevent wind-blown emissions or spillages and covers should be maintained until unloading. All truck tailgates should be securely fixed prior to loading and immediately after unloading soils and all vehicles are to be operated in a manner so as to prevent loss of soils during loading, transport and unloading activities.

A preferred transport route to the nominated facility is required to be identified.

# 13.2.7 Site security

During construction works, work areas will be barricaded or secured by a chain-wire fence (or similar), which will remain in place over the duration of the remediation works to exclude public visitors. Appropriate safety/warning signs will be posted in accordance with the SafeWork NSW requirements. If an excavation is to be left open while the environmental project manager and contractor are not on-site for a substantial period of time (such as overnight) a temporary fence will additionally be erected around the excavation. Should the excavation be deeper than 1.5 m, the edges of the excavation should be battered to a 45 degree slope or benched into 1 m steps based on industry good practice.

# 13.2.8 Working hours

Working hours should comply with the conditions of development consent. Any works to be conducted outside the normal working hours needs to have prior agreement with CGU and the Council's consent.

# 13.2.9 Contact information

Contact details of the appropriate civil contractors and the CGU Project Manager should be displayed in a prominent location at the site (such as the entrance or site office). Any incidents should be initially reported to the site manager, who will prepare an incident report for the CGU's Project Manager.

# 13.2.10 Incident response

Response to an incident occurring on-site will be in accordance with CGU's emergency and evacuation procedures and incident reporting procedures. A health and safety plan and incident contact numbers are to

be maintained in an on-site register. All other relevant emergency contact numbers such as police, fire brigade and hospital will be listed in CGU's work pack and posted on site for easy access.

Local contractors (including a plumber and electrician) should be on call should an incident be reported by the site workers or local residents.

# 13.2.11 Contingency management

Contingency plans for anticipated environmental problems that may arise during the course of the remediation work are summarised in Table 13.2.

ANTICIPATED PROBLEMS	CORRECTIVE ACTIONS
Chemical/fuel spill	Stop work, notify relevant emergency contacts and CGU. Use appropriate absorbent material to absorb the spill (if practicable). If necessary, accessible soil may be used to create temporary bunding to control the spill. Stockpile the impacted soil in a secure location, sample and determine the appropriate disposal/treatment option
Excessive dust	Use water sprays to suppress the dust or stop site activities generating the dust until it abates
Excessive noise	Identify the source, isolate the source if possible, and modify the actions of the source. Ensure hearing protection is worn if noise cannot be reduced
Excessive odours/vapours	If excessive organic odours/vapours are being generated, stop works and monitor ambient air across the site for organic vapours with a PID and odours at site boundaries. Implement control measures including respirators for site workers, use of odour suppressants, wetting down of excavated soil
Excessive rainfall	Ensure sediment and surface water controls are operating correctly. If possible divert surface water away from active work areas or excavations.
Water in excavations following validation sampling	Collect samples and assess against relevant assessment criteria, to enable disposal options to be formulated
Leaking machinery or equipment	Stop the identified leak (if possible). Clean up the spill with absorbent material. Stockpile any impacted soil in a secure location, sample and determine the appropriate disposal/treatment option.
Failure of erosion or sedimentation control measures	Stop work, repair the failed control measure.
Unearthing unexpected fill or waste	Stop activities, contact CGU. Prepare a management plan to address the issue if necessary.
Equipment failures	Ensure that spare equipment is on hand at the site, or ensure that the failed equipment can be serviced by site personnel or a local contractor.
Complaint management	Notify CGU following the complaint. Report the complaint in accordance with management procedures. Implement control measures to address reason for complaint (to the extent practicable).
Asbestos	Should potential asbestos be noted in soil, notify CGU and the consultant Project Managers. Asbestos monitoring may be required to continue works.

Table 13.2 Contingency management plans

### Acid sulfate soils

If acid sulfate soils are suspected, stop works and assess the material. If actual or potential acid sulfate soils are present, prepare an acid sulfate soils management plan then work according to the plan.

# 14. VALIDATION PLAN

# 14.1 DATA QUALITY OBJECTIVES

A process for establishing data quality objectives (DQOs) for an investigation has been defined by the US EPA and adopted in AS 4482.1-2005 and referenced in the amended ASC NEPM. DQOs are designed to:

- Set the study objectives;
- Collect the appropriate types and level of data (based on proposed recreational land use and CoPC); and
- Select appropriate tolerance levels for potential decision-making errors.

The DQO process is a seven-step iterative planning approach used to plan for environmental data collection activities. It provides a systematic approach for defining the criteria that a data collection design should satisfy, including when, where, who and how to collect samples or measurements, determination of tolerable decision error rates and the number of samples or measurements that should be collected.

The seven-step process for this validation plan and data quality indicators to be adopted are discussed and summarised in Appendix D.

# 14.2 VALIDATION SAMPLING

Validation sampling is to be undertaken in accordance with EPA-guidance.

# 14.2.1 Validation of UPSS Removal

The Project Environmental Consultant shall monitor UPSS removal works. Tank removal should include the recording of any evidence that a leak has occurred and whether contamination is present within the excavation. A photographic record is also required, as well as field screening of materials to assist in sample assessment during and immediately after tank removal.

Following the tank and pipework removal and subsequent excavation, soil samples will be collected from the walls and floor of the excavations. Validation samples are to be collected within 24 hours of the final excavation surface being exposed to ensure the samples collected are representative of the contamination that remains in the subsurface soils.

The number of samples required should reflect the dimensions of the excavation, differing soil types (fill vs residual soils) and depth of impacted soils removal. At a minimum, the following samples should be collected (in accordance with NSW EPA (2014) Technical Note: Investigation of Service Station Sites):

- Minimum two samples per tank with samples taken from each tank wall and floor. One sample from the base and one sample from each of the walls where separate excavations are required.
- One sample beneath each fuel dispenser.
- One sample every 5m of fuel feed lines to dispensers.
- One sample per remote fill point.
- One sample from the base and each wall where hydraulic hoists were present.
- Sampling beneath the workshops in accordance with Section 14.2.2.

Sampling locations should be identified using appropriate screening (such as via visual inspection and photos and PID screening) and the decision rules used to justify the sampling methodology. Consideration shall be given to lithology changes and the distribution of the tank pits and fuel lines which may require additional samples.

As a guide when removing a UST, sampling should be: one sample from beneath the centre of the UST if tank length is less than 4 m and at least one sample from each of the four walls. If the tank is 4–10 m long, at least two samples from each of the four walls and under each end. If the tank is longer than 10 m, at least three samples from each of the four walls and under each end are taken. This applies to each tank in the same tank pit.

Samples will be analysed for the COPC. Asbestos in soil analysis shall be included where fill materials are to remain in-situ.

The excavations will be left open while waiting for laboratory results. If validation samples are reported to have concentrations of contaminants above the adopted assessment criteria, further excavation will be undertaken, to the extent practicable, until concentrations of COPC are below the validation criteria set out in Section 12.1.

The Stage 2 DSI identified odorous soils that would prevent their use under most land use settings, even if soils were considered safe based on contaminant concentrations. It is likely that these soils will be encountered the UPSS removal works and should remain buried where possible (provided they meet the validation criteria).

# 14.2.2 Sampling Previously Unassessed Areas

The area of the building footprint where intrusive sampling has not previously occurred is approximately 430 m<sup>2</sup>. Judgemental sampling is considered appropriate for the assessment of contamination beneath the buildings. Samples should be collected at the depth(s) where the level of contamination is expected to be most significant, or beneath where significant contamination has been excavated.

If present, the excavation of the vehicle maintenance hoists and associated validation sampling will achieve the required sampling density and required depths beneath the workshops. An additional sampling point is required to adequately assess soils beneath the former convenience store footprint. Should the hoists not be present, then excavation and sampling of 5 test pits, evenly spaced across the building footprint, shall be undertaken. Samples should be collected near the base of the building slabs to check for possible application of pesticides during building construction. Targeted sampling should be undertaken where evidence of contamination is observed.

All samples will be screened with a PID and analysed for COPC. Sample results shall be compared to criteria set out in Section 12.1. Where results exceed the adopted criteria, additional excavation of impacted soils will be required.

# 14.2.3 Post-remediation GME

To assess the residual groundwater contamination status, a post-remediation GME of monitoring wells that remain intact shall be undertaken following completion of site validation. Key monitoring wells to be retained (prior to Stage 2 road construction) that will provide adequate coverage to assess residual groundwater impacts include MW05, MW06, MW08, MW09, MW13, MW14, MW16, MW17, MW18 and MW19. It is expected that some monitoring wells will be destroyed during construction of the slip lane linking Princes Highway and President Avenue. Consideration should be given to the installation of appropriately positioned replacement wells should residual impacts identify a potential risk to future site users from groundwater contamination. If ongoing groundwater monitoring is required, the details shall be included in a LTEMP.

Groundwater sampling shall be conducted using low-flow methods. All samples should be analysed for TRH/BTEXN/lead. Selected samples may be analysed for MTBE, VOCs, PAHs, MNA parameters and PFAS.

Tetra Tech note that some groundwater monitoring wells may require replacement where remediation and/or development activities cause the destruction of existing monitoring wells. An assessment of suitable replacement wells will be made following remediation works.

# 14.2.4 Plume delineation and off-site vapour assessment

Considering the depth to groundwater beneath surrounding residential properties is likely less than 2 m, assessment for potential soil vapour intrusion risk within an off-site residential setting is considered acceptable as a method of plume delineation.

The passive soil vapour sampling point SG01 should be re-sampled to confirm that petroleum hydrocarbon vapours are unlikely to pose an unacceptable risk to residential occupants through vapour inhalation.

Sampling of SG01 should be incorporated into a soil vapour assessment to confirm the outcomes of the Ground Gas Assessment Report (Info Doc 569) and subsequent Preliminary Risk Assessment (Info Doc 570) with a focus on the risks from vapour inhalation on the lower ground floor of the residential building. The Ground Gas Assessment (Info Doc 569) shall be used to guide the required scope of works for the confirmatory sampling. The HSL-D criteria shall be used for the exposure scenario beneath the residential apartments immediately north of the site. HSL-A/B criteria shall be used to assess potential vapour intrusion risk to residential receptors down-gradient of the site, assuming that residential living spaces may occupy the ground floor.

The plume delineation and soil vapour assessment could be reported together to assess potential risks to offsite receptors from groundwater contamination.

# 14.2.5 Stockpile sampling

It is recommended that stockpile samples are collected at a rate of 1 sample per 25m<sup>3</sup> (minimum of 3 samples per stockpile) as per the guidance provided in Schedule B2 of the ASC NEPM. It is noted that this sampling frequency is for general waste classification of smaller stockpiles (i.e. <250m3). The sampling frequency and analytical schedule may need to be adjusted on a 'case by case' basis by the environmental consultant, depending on factors such as:

- The volume of the material.
- The homogeneity of the material.
- Investigation and laboratory analytical records relating to the material.
- A visual assessment of the material.

Samples collected of waste soil will be analysed for a broad range of CoPC consistent with the site history and informed by data presented within previous contamination assessment reports. Analysis for asbestos will be requested for samples from stockpiles in which fill materials are present.

# 14.2.6 Imported Fill Assessment

Imported material will be required to be suitable (from a contamination perspective) for the proposed commercial / industrial land use.

To confirm the material is suitable for use, the following may be required:

Where adequate documentation is provided to demonstrate the material is suitable for use, the
environmental consultant shall complete periodic inspections to check the material is consistent with the
descriptions provided in the documentation.

• In the event that the documentation is not sufficient to demonstrate the material is suitable for use or may potentially be suitable for use pending further assessment, the environmental consultant shall collect representative samples for laboratory analysis to assess whether the material is suitable for use.

Table 14.1 provides a summary of the laboratory analysis required to assess the suitability of imported soils.

### Table 14.1 Proposed Laboratory Analysis for Imported Soil Materials

Туре	Rate	Analysis
VENM	1/100m <sup>3</sup> with a minimum of 3 samples per source <sup>3</sup>	Source dependent although may include TRH, BTEX, PAH, OCP, OPP, PCB, metals and asbestos
ENM	As per Table 1 of the NSW EPA current Excavated Natural Material Order 2014	As per Table 4 of the NSW EPA current Excavated Natural Material Order 2014 (metals, electrical conductivity, pH, TRH, BTEX, PAHs, metals, foreign materials), OCP, OPP, PCB and asbestos.

TRH: Total recoverable hydrocarbons

BTEX: Benzene, toluene, ethylbenzene and xylene

PAH: Polycyclic aromatic hydrocarbons

OCP/OCP: Organochlorine pesticides/ organophosphate pesticides

PCB: Polychlorinated biphenyls

Metals: arsenic, cadmium, chromium, lead, nickel, zinc, mercury and copper

Depending on final grade levels required for the CAF, an estimated 1,200m<sup>3</sup> is required to be imported to backfill excavations considering the number and size of tanks and the estimated soils requiring excavation and disposal. Additional geotechnically suitable materials will be imported onto the site to allow development of the CAF and road corridor.

# 14.3 VALIDATION SAMPLING PROTOCOLS

Fieldwork will be undertaken by experienced and appropriately qualified environmental scientists/engineers following written field procedures which are based on industry accepted standard practice and Schedule B2 of the ASC NEPM 2013.

Soil samples will be collected using hand tools or from material obtained using an excavator depending on the dimensions of excavation or stockpile.

A photo-ionisation detector (PID) will be used to screen soil samples for the presence of volatile organic compounds (VOCs).

Between each sampling location, new nitrile gloves will be used to reduce the potential for cross contamination to occur.

# 14.3.1 Laboratory Analysis

Selected soil samples will be analysed by ISO/IEC 17025 certified laboratories with National Association of Testing Authorities (NATA) accredited methods for the analytes tested.

# 14.3.2 Sample Nomenclature

Samples collected will be identified by a unique sample identifier. The sample identifier will be included on all sample jars and associated paperwork including field sheets and chain of custody forms.

Sample labels will be completed in indelible ink and will include the following information:

- Project number.
- Sample identifier.

<sup>&</sup>lt;sup>3</sup> Rate may vary depending on volume and availability of accompanying source documentation.

- Date of sample collection (day/month/year).
- Initials of sampler.

Quality control samples will be labelled:

- Intra-laboratory and inter-laboratory duplicates: "DUP" + sequence number (i.e. DUP01, DUP02 etc.).
- Trip blanks: "TB" + sequence number (i.e. TB01, TB02 etc.).
- Trip Spikes: "TS" + sequence number (i.e. TS01, TS02 etc.).
- Rinsate blanks: "RB" + sequence number (i.e. RB01, RB02 etc.).

# 14.3.3 Sample Storage and Preservation

Samples will be placed into laboratory prepared and supplied sample containers (i.e. jars, bags and bottles) with teflon-lined lids and preservatives, where required.

For analysis of VOCs, samples will be created as rapidly as possible with zero headspace where practicable, attempting to minimise volatile losses. Samples will be submitted as soon as possible to the laboratories to prevent loss while in storage or transit and analysed within recommended holding times.

Sample containers will be placed directly into an ice filled cooler on the site and transported to the laboratories under chain of custody protocol. The condition of samples as received by the laboratory be recorded and reported with analytical results.

Appropriate sampling procedures and equipment shall be implemented when collecting samples for PFAS analysis, including the use of laboratory-supplied PFAS sampling containers and following sampling guidance set out in Section 18 of the PFAS National Environmental Management Plan Version 2.0 (January 2020).

# 14.3.4 Sampling Equipment Decontamination Procedures

Non-disposable sampling equipment (e.g. trowel, shovel etc.) will be decontaminated between each sampling location as follows:

- Scrub all surface of the equipment with a wire brush to remove soil and/or gross contamination;
- Scrub the equipment in a bucket filled with a solution of phosphate free detergent (Decon 90), using a brush that can reach all surfaces; and
- Rinse the equipment in clean potable water.

# 14.3.5 Equipment Calibration

Equipment will be calibrated as per the manufacturer's instructions.

The PID will be calibrated with isobutylene gas at 0 ppm and 100 ppm at the commencement of each day of sampling and if necessary, during the day in accordance with the procedure provided by the supplier.

Calibration certificates will be retained and provided within the validation report.

# 14.3.6 Field Quality Control Samples

Field quality control samples will be collected as follows:

- Intra-laboratory and inter-laboratory duplicates
- Rinsate blanks
- Trip blanks.

Field duplicate soil samples will be collected from soil immediately adjacent to the primary sample by placing approximately equal portions of the primary sample into two sample jars. Samples will be labelled so as to conceal their relationship to the primary sample from the laboratory.

Rinsate blanks will consist of pre-preserved bottles filled with laboratory prepared water that is passed over decontaminated field equipment and then collected in containers used for the sampling process. Rinsate blanks will be preserved in a similar manner to the original samples.

Trip blank and spike samples will be prepared by the primary laboratory on request during soil validation sampling, carried to the field unopened and subjected to the same handling procedures as the primary field samples.

# 14.3.7 Validation Criteria

Validation criteria are set out in Section 0.

In addition to the numerical criteria, soils shall not present unacceptable aesthetic impacts as described within Section 3.6 of Schedule B1 of the ASC NEPM (NEPC, 2013). Such impacts would include highly odorous or discoloured/stained soils, the presence of large quantities of inert or putrescible wastes.

# 14.4 QUALITY ASSURANCE AND CONTROL

Project specific quality assurance/quality control (QA/QC) procedures will be implemented to improve transparency, consistency, comparability, completeness, and confidence in the data collected.

The field procedures to be adopted during the validation assessment are discussed above. Laboratory QA/QC procedures and adopted data quality indicators (DQIs) are discussed in Appendix D.

# 14.5 VALIDATION REPORT

At the completion of the remedial works, a validation report will be prepared in general accordance with NSW EPA 2020 and Schedule B2 of the ASC NEPM, documenting the works as completed. This report will contain information including:

- Information demonstrating compliance with appropriate regulations and guidelines.
- Details of the excavation and validation works completed at the site. To allow site works to progress, a separate report may be prepared that summarises the off-site groundwater and soil vapour assessments.
- Details of the source, classification and suitability of all imported materials.
- Any variations to the strategy undertaken during the implementation of the remedial works.
- Details of any environmental incidents and/or unexpected or new finds of contamination occurring during the course of the remedial works and the actions undertaken in response to these incidents.
- Details on waste classification, tracking and off-site disposal (including environment protection licence (EPL) details).
- Clear statement of the suitability of the site that is the subject of the validation report, for the proposed use.
- Preparation of a LTEMP may be required to supplement the Validation Report. If needed, the LTEMP will set out the scope and requirements for the ongoing management of any residual contamination which poses a potentially unacceptable risk if not controlled.

The validation report will also serve to document the remediation works and post-remediation condition of the site for future reference.

# 15. UNEXPECTED AND NEW FINDS

An Unexpected Find is defined as contamination whose presence at a site is unlikely and cannot reasonably be found by investigations undertaken in accordance with regulatory requirements.

A New Find is defined as contamination or infrastructure that may be present at the site but has not previously been encountered, for example, a UST that is not shown on plans and was not detected during previous investigations or site history searches.

CGU has prepared an Unexpected Contaminated Land and Asbestos Finds Procedure (Unexpected Finds Procedure) to address Conditions E113 and E114 of the Infrastructure Approval. The Unexpected Finds Procedure, covering both Unexpected Finds and New Finds defined above, must be implemented should unexpected contaminated land or asbestos (or suspected contaminated land or asbestos) be excavated or otherwise discovered during construction.

# 16. CONCLUSION

CGU propose to redevelop the site for use as a Construction Ancillary Facility in the short-term and ultimately as slip lane and commercial property. Soil and groundwater impacted with petroleum hydrocarbons has previously been identified at the site which is occupied by a former service station and vehicle workshop.

Based on contamination identified, the proposed redevelopment and a review of appropriate remedial techniques, the preferred remedial strategy to mitigate contamination risks is to excavate UPSS infrastructure and associated impacted soils to make the site suitable for the intended uses. Surplus soils generated by the excavations will be disposed off-site as waste.

The remedial works will be required to be validated by a suitably qualified consultant which will include a program of inspections, sampling, laboratory analysis and reporting. At the completion of the remedial works, a validation report will be required to be prepared in general accordance with NSW EPA 2020 Guidelines for Consultants Reporting on Contaminated Land, and Schedule B2 of the National Environment Protection (Assessment of Site Contamination) Measure, 1999 (amended April 2013), documenting the works as completed and the resultant site contamination status.

Further assessment of the potential risks to off-site receptors related to off-site contamination attributed to the site shall form part of the validation.

Following remediation, a LTEMP may be prepared to facilitate monitoring of potential ongoing risks from residual groundwater contamination. If needed, the LTEMP will succinctly describe the nature and location of contamination remaining on- and off-site, how contaminants will be managed, who will be responsible for the plan's implementation and over what time frame actions specified in the plan will take place. The LTEMP will be recorded on the Planning Certificate issued under Section 10.7 of the EP&A Act 1979, or a covenant registered on the title to land under Section 88B of the Conveyancing Act 1919.

Subject to the successful implementation of the measures detailed in this RAP and, if needed, implementation of an LTEMP to monitor residual groundwater contamination, it is considered that the site can be made suitable for the proposed commercial / industrial land-use.



# IMPORTANT INFORMATION ABOUT YOUR TETRA TECH COFFEY ENVIRONMENTAL REPORT

# Introduction

This report has been prepared by Tetra Tech Coffey for you, as Tetra Tech Coffey's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Tetra Tech Coffey may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Tetra Tech Coffey has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

### Your report has been written for a specific purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

# Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Tetra Tech Coffey.

The analyses, evaluations, opinions and conclusions presented in this report are based on that purpose and scope, requirements, data or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Tetra Tech Coffey should be kept appraised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statues and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

# Interpretation of factual data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Tetra Tech Coffey would be pleased to assist with any investigation or advice in such circumstances.

# Recommendations in this report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

# Report for benefit of client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Tetra Tech Coffey assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Tetra Tech Coffey be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

# Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Tetra Tech Coffey prepared the report and has familiarity with the site, Tetra Tech Coffey is well placed to provide such assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted and Tetra Tech Coffey disowns any responsibility for such misinterpretation.

# Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

# Responsibility

Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.

# FINAL

# Appendix A: Figures

# FINAL







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5		6		7			8		9	

10



10

11		12	
LEGEND			
BOUNDARY			
	PROJECT BO	UNDARY	А
EXISTING FEATURES			
0	EXISTING TR	EE TO BE RETAINED	
ROAD FORMATION			
	CUT/FILL EME	BANKMENT	
	TUNNEL ALIG	NMENT	
	PORTAL SCR	EEN	
	CULVERT / W	ATER PIPE	В
	ON GRADE W	ATER RETICULATION	
	PIPED WATE	R RETICULATION	
WALLS & EDGE TREATMEN	ITS		
	PROPOSED F	RETAINING WALL	
PARK FURNITURE & ELEME	<u>ENTS</u>		
	SEATING		
₩₩ ¶			
U.	BIKE RACK		C
	LANDSCAPE	SEATING WALL	0
	WASTE / REC	YCLE BIN	
P		ΙΤΔΙΝ	
U			
PI ANTING / REVEGETATIO		IDENTIFICATION MARKER	
	HYDROMULC	HED GRASS AREA	
	MASSED PLA	NTING (GRASS AND SHRUBS)	
	DEMONSTRA	TION GARDEN PLANTING	П
* * * * * * * * * * * * * * * * * *	WATER QUAL	ITY BASIN PLANTING - SWAMP FOREST	D
Ψ Ψ Ψ Ψ Ψ Ψ Ψ Ψ Ψ Ψ Ψ Ψ	WATER QUAL	ITY BASIN PLANTING - TREATMENT MARSH	
V V V V V V V V V V V V V V V V V V V V	WATER QUAL	ITY BASIN PLANTING - SHALLOW MARSH	
+ + + + + + + + + + + + + + + + + + +	SEMI-AQUAT	C ZONE	
	MASSED PLA	NTING (DRY GRASS MIX)	
+ + + + + + + + + + + + + + + + + + +	MASSED PLA	NTING - ON STRUCTURE	
	MASSED PLA	NTING - STREET MIX	
	REHABILITAT	ED PLANTING	001.rvt
	TURF AREAS	- PLAYING FIELDS	D-002(
	TURF AREAS	- GENERAL	IOM-DI
TREE PLANTING			n-00d-
	WETLAND TR	EE (25 LITRE)	I6S1-HSL
	PARKLAND /	WETLAND TREE (75 LITRE)	Stage 1/N
	PARKLAND /	WETLAND / STREET TREE (200 LITRE)	Extension
	FEATURE AN	D AMENITY TREE (1000 LITRE)	
0	FEATURE AN	D AMENITY TREE (2500 LITRE)	31M 360://
			ile Plotted: I
GROUND TREATMENT ARE			
			05 PM
			12:31:(
	PROPOSED	BOARDWALK / VIEWING DECK	<b>G</b>
	PROPOSED F	PLAYGROUND / NATURE PLAY SPACE	16/09/
	PROPOSED S	KATEPARK	Time:
	PROPOSED F	TINESS STATION & BUSH ZONES	ot Date &
		CONOTRUCTION	
NÜ		CONSTRUCTION	
6 TENDER			

# st of, Transport for NSW for a specific by Transport for NSW. I out of the use of this drawing or any Irawing is protected by copyright ritten permission of Transport for NSW. STAGE 1 M6 TENDER

	STAGE I						
	<ul> <li>PROJECT WIDE - LANDSCAPE WORKS</li> <li>LANDSCAPE PLAN - 7</li> </ul>						
[	FILE No. 014949	SHEET: 12 OF 15	A1				
	STATUS: FOR TENDER		C	3y:			
	DRG No. M6S1-HSL-P00-UD-DWG-002117	T01 EDMS No.		Plotted [			
	11	12	DF 801*554				
		· —					





# 7-Eleven Service Station - Borehole Locations

M6 STAGE 1 CONTAMINATION

# Legend



1:250 Scale at A3







Map Produced by Cardno NSW/ACT Pty Ltd (NW&E) Date: 2020-08-14 | Project: 4NE30036 Coordinate System: GDA 1994 MGA Zone 56 Map: 4NE30036-GS-005-711\_SamplingPlan.mxd 01 Aerial imagery supplied by Nearmap (August, 2020)





# 7-Eleven Service Station - Human Health Exceedances

M6 STAGE 1 CONTAMINATION

# Legend

- Site Boundary
- M6 Stage 1 Road Design
- Cadastre (NSW SS, 2019)
- Building Layout

### Human Health Criteria Exceedances



NEPM 2013 HSL Commercial/Industrial D, for Vapour Intrusion, Sand (1-2m)



NEPM 2013 HSL Commercial/Industrial D, for Vapour Intrusion, Sand (1-2m) and NEPM 2013 HIL, Commercial/Industrial D HIL



1:250 Scale at A3







Map Produced by Cardno NSW/ACT Pty Ltd (NW&E) Date: 2020-08-17 | Project: 4NE30036 Coordinate System: GDA 1994 MGA Zone 56 Map: 4NE30036-GS-014-711\_HH\_Exceedances.mxd 01 Aerial imagery supplied by Nearmap (August, 2020)




Ground Floor, 16 Burelli Street, Wollongong, New South Wales 2500 Australia Tel. +61 2 4231 9600

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Where individual tanks are described in the following table.



ID	Volume (SFL)	Likely Total Volume (litres)	
Tank A	21,400 Litres (4,700 UK Imp Gallons)	24,000	*
Tank B	13,638 Litres (3,000 UK Imp Gallons)	15,000	-
Tank C	13,638 Litres (3,000 UK Imp Gallons)	15,000	
Tank D	21,400 Litres (4,700 UK Imp Gallons)	24,000	-
Tank E	18,184 Litres (4,000 UK Imp Gallons) <sup>1</sup>	19,345	-
Tank F	13,638 Litres (3,000 UK Imp Gallons)	14508	
Tank G	18,184 Litres (4,000 UK Imp Gallons)	19,345	
Tank H	56,000 Litres	56,000	
Tank I	44,000 Litres	45,000	
Tank J	30,000 Litres	30,000	
Tank K	20,600 Litres	24,000	
Tank L	32,400 Litres	34,000	T
Tank M	13,638 Litres	15,000	T







### 7-Eleven Service Station - Gas Monitoring Locations

M6 GAS MONITORING

#### Legend

	Site Boundary
Control on	UST Fill Point
THAT	Vent Stack
西尼日料	<ul> <li>Waste Oil Fill Point</li> </ul>
	– – 🕕 UST Transfer Line
	Cadastre (NSW SS, 2019)
	Building Layout
	Fuel Dispensing Unit
	Known UST
	Suspected UST
	Gas Monitoring Locations (Cardno, 2020)
	A Passive Soil Gas Samplers
	🛕 Soil Vapour Pins
E Constant	
	FIGURE 1
	1:250 Scale at A3
	<u> </u>
	0 2.5 5 7.5 10
	Cardno
5	Map Produced by Cardno NSW/ACT Pty Ltd (NW&E)
a le	Date: 2020-10-20   Project: NE30054 Coordinate System: GDA 1994 MGA Zone 56 Map: NE30054-GS-020-711_GasMonitoring.mxd 01

Aerial imagery supplied by Nearmap (September, 2020)



	GOVERNMENT Transport for NSW
EAST	7-Eleven Service Station Conceptual Site Model
	LEGEND SOIL INFERRED PLUME
	GROUNDWATER LEVEL
	FIGURE 3
	NOT TO SCALE
	Map Produced by Cardno VIC Date: 2020-10-21   Project: NE30054 Coordinate System: GDA 1994 MGA Zone 56 Map: NE30054-AI-021-711_CSM.ai 01





### 7-Eleven - Site Layout and Well Locations

M6 GROUNDWATER MONITORING

#### Legend

- Site Boundary
- UST Fill Point
- Vent Stack
- Waste Oil Fill Point
- UST Transfer Line
- Cadastre (NSW SS, 2019)
- Building Layout
- Fuel Dispensing Unit
- Known UST
- Suspected UST

#### Groundwater Monitoring Wells

- Tank Pit Monitoring Well
- ÷
- Groundwater Monitoring Well
- Decommissioned Groundwater Monitoring Well

#### FIGURE 2 1:250 Scale at A3







Map Produced by Cardno NSW/ACT Pty Ltd (NW&E) Date: 2020-10-21 | Project: NE30054 Coordinate System: GDA 1994 MGA Zone 56 Map: NE30054-GS-019-711\_GME\_SiteWide.mxd 01 Aerial imagery supplied by Nearmap (September, 2020)



TANK	SCHEDUL	E	
NO.	SIZE	PRODUCT	FEEDS DISPENSER
T1	44kL	DIESEL	5, 6, 7
T2	56kL	PULP 98	1, 2, 3, 4, 5, 6, 8, 9, 10, 11
T3	20.6kL	E10	1, 2, 3, 4, 5, 6, 8, 9, 10, 11
T4	32.4kL	ULP	1, 2, 3, 4, 8, 9, 10, 11
T5	22kL	ABANDON	
T6	30kL	LPG	12, 13

LEGEND	
🕈 FE	FIRE EXTINGUISHER - DRY CHEMICAL POWDER 9.0kg
FHR	FIRE HOSE REEL
\varTheta ES	EMERGENCY STOP BUTTON
220203	FILL POINTS
❶	DIP POINT
EXIT	EXIT
	SWITCHBOARD
E	EMERGENCY INFORMATION



Appendix B: Results summary tables

# FINAL





SHEET B.1																										
					1	CRC C	Care TPH Fr	actions	1			1	В	TEX	1	1		1	1	Me	etals	1	1	1	Inorg	ganics
				Ce-C10	C10-C19	c16-C34	c34-C40	mg/kg	mg/kg	mg/kg	Benzene mg/kg	Toluene	Ethylbenzene we/kg	Xylene (m & p)	Xylene (o)	Xylene Total	Arsenic me/kg	Cadmiu	Chromium (III+VI)	Copper mg/kg	read mg/kg	Mercury	Nicke	Juiz mg/kg	% Moisture	% Moisture Content (dried @ 103°C
EQL				20	50	100	100	100	20	50	0.1	0.1	0.1	0.2	0.1	0.3	2	0.4	5	5	5	0.1	5	5	0.1	1
CRCCARE 2011 Soil HSL for	Direct Contact, HSL-D	Com/Ind		26000	20000	27000	20000				420	00000	27000			01000										
NEPM 2013 HIL. Commerce	ial/Industrial D			- 26000	- 20000	- 27000	- 38000	-	-	-	430	- 99000	- 27000	-	-	- 81000	3000	900	3600	240000	1500	730	6000	400000	-	-
NEPM 2013 Soil HSL Comm	nercial/Industrial D, for	Vapour Intrusion, Sa	nd																							
0-1m				-	-	-	-	-	260	NL	3	NL	NL	-	-	230	-	-	-	-	-	-	-	-	-	-
1-2m				-	-	-	-	-	370	NL	3	NL	NL	-	-	NL	-	-	-	-	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix																							
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-		· ·	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	470	<50	<100	<100	<100	380	<50	<0.5	0.9	18	56	14	69	3.6	<0.4	16	<5	13	<0.1	<5	7.1	-	16
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	<5	10	180	<0.1	5.4	170	-	6.1
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5	<5	25	<0.1	<5	31	-	12
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	2800	<500	<1000	<1000	<1000	2100	<500	8.4	210	82	300	95	390	16	<0.4	32	<5	19	<0.1	<5	5.8	-	20
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<20	460	100	<100	560	<20	460	<0.1	<0.1	< 0.1	<0.2	<0.1	<0.3	11	<0.4	16	17	470	0.1	<5	150	-	16
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	270	330	<100	<100	330	260	328.5	<0.1	<0.1	6.9	3.4	0.1	3.5	3.6	<0.4	18	<5	15	<0.1	<5	9	-	10
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	< 0.1	<0.2	<0.1	<0.3	<2	<0.4	<5	<5	13	<0.1	<5	25	-	8.2
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	2.3	<0.4	7.8	<5	9.2	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	< 0.3	3	<0.4	24	51	18	<0.1	92	99	-	7.4
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	< 0.1	<0.1	0.1	0.7	<0.1	0.7	<2	<0.4	7.5	<5	7.8	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	140	<50	<100	<100	<100	120	<50	<0.1	<0.1	3.6	1/	<0.1	1/	5.7	<0.4	24	<5	16	<0.1	<5	<5	-	16
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	FIII Desilations Masterial	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	5.8	1.1	14	56	180	<0.1	14	210	-	/.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Waterial	-	- 1700	-	-	- 1700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway		3/08/2020		3900	1200	<100	<100	1900	3000	1043		2.3	150	610	<0.1	690	<2	<0.4	<5 E.G	<5	11	<0.1	<5	<5 71	-	
734 Princes Highway		2/08/2020	FIII Natural Soil	<20	220	<100	<100	220	<20	220	<0.1	<0.1	<0.1	<0.2	<0.1	<0.5	2.9	<0.4	3.0	20	40	<0.1	<5	71	-	14
734 Princes Highway	CBH07-2.0	3/08/2020		<20	210	<100	<100	210	<20	210	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	-2	<0.4	47	27	22	<0.1	40	60	_	1/
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	450	1700	2800	Q10	5/10	450	1700	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5.4	<5	11	<0.1	-40	<5		12
734 Princes Highway	00100	3/08/2020	Natural Soil	<20	1500	2300	800	4600	<20	1500	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	6.1	64	35	<0.1	<5	34	_	13
734 Princes Highway	QC200	3/08/2020	Natural Soil	<25	<50	<100	<100	<50	<25	<50	<0.2	< 0.5	<1	<2	<1	<3	<4	<0.4	4	<1	5	<0.1	<1	5	12	-
	-		•								-	•	•		•				•		•			-		
Statistical Summary											-						-									
Number of Results				19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	1	18
Number of Detects				6	8	3	2	8	6	8	2	3	6	6	4	6	10	1	16	7	19	1	4	14	1	18
Minimum Concentration				<20	<50	<100	<100	<50	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	4	<1	5	<0.1	<1	<5	12	6.1
Minimum Detect				140	310	100	800	310	120	310	8.4	0.9	0.1	0.7	0.1	0.7	2.3	1.1	4	6.4	5	0.1	5.4	5	12	6.1
Maximum Concentration				3900	1800	2800	<1000	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	92	210	12	20
Maximum Detect	Data att t			3900	1800	2800	910	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	92	210	12	20
% of Results at or above th	ne Detect Limit			32	42	16		42	32	42	11	16	32	32	21	32	53	5	84	37	100	5	21	74	100	100
% of Results below the De	tect Limit			68	58	84	89	58	68	58	89	84	68	68	79	68	47	95	16	63	0	95	79	26	0	0
% of Detects at or above C	Juidelines			32	32	32	32	0	21	100	11	32	32	0	0	32	0	0	0	0	0	0	0	0	0	0
				~~				4.00		-	~~	~~~		4.0.0	400	60	4.0.0	100	100	100	100	4.0.0	4.00	400	100	400



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				Resu
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				ů ř
				pe
				As
				Comment
EQL				0.01% w/w
CRCCARE 2011 Soil HSL for D	irect Contact, HSL-D C	om/Ind		-
0-1m				-
NEPM 2013 HIL, Commercial	l/Industrial D			0.05% w/w / No visible asbestos at surface
NEPM 2013 Soil HSL Comme	rcial/Industrial D, for \	/apour Intrusion, Sand		-
0-1m	·	· ·		-
1-2m				
Site	Sample ID	Sample Date	Matrix	
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibr
0 1		-,,		detected. No trace asbestos detected
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	_
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	No ashestos detected at the reporting limit of $0.01\%$ w/w. Organic fibr
7 54 Finices fighway	0.05 0.1	5/00/2020		detected No trace ashestos detected
734 Princes Highway	CBH02-0 5	3/08/2020	Fill	
734 Princes Highway	CBH02-1.0	2/08/2020	Natural Soil	
734 Princes Highway		2/08/2020	Natural Soil	
734 Princes Highway		3/08/2020		-
734 Princes Highway	CBH03-0.5	3/08/2020	FIII	No aspestos detected at the reporting limit of 0.01% w/w. Organic libra
724 D		2/00/2020		detected. No trace aspestos detected
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soli	
734 Princes Highway	CBH04-0.5	3/08/2020	FIII	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibr
				detected. No trace asbestos detected
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	•
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibr
				detected. No trace asbestos detected
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibro
				detected. No trace asbestos detected
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	A) Grey compressed fibre cement material: Chrysotile asbestos detecte
				B) White vitreous fibrous insulation material: Synthetic mineral fibre
				detected
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibr
				detected. No trace asbestos detected
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibr
ſ				detected. No trace asbestos detected
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	QC100	3/08/2020	Natural Soil	-
734 Princes Highway	QC200	3/08/2020	Natural Soil	-

Number of Results	9
Number of Detects	9
Minimum Concentration	1
Minimum Detect	1
Maximum Concentration	1
Maximum Detect	1
% of Results at or above the Detect Limit	100
% of Results below the Detect Limit	0
% of Detects at or above Guidelines	0
% of Results Below Guidelines or Non-Detect	100

NE30054 734 Princes Highway, Rockdale NSW Detailed Site Investigation



														PAH										<u> </u>
																ranthene					LOR)	LOR)	-OR)	
				ıthalene	aphthylene	aphthene	rene	anthrene	racene	ranthene	е	:(a)anthracene	sene	:o(k)fluoranthene	:o(b+j)fluoranthene	:o(b+j) & Benzo(k)flu	:o(a)pyrene	no(1,2,3-c,d)pyrene	nzo(a,h)anthracene	.o(g,h,i)perylene	.o(a)pyrene TEQ (Zero	:o(a)pyrene TEQ (Hall	o(a)pyrene TEQ (Full	s (Sum of total)
				Nap	Acer	Acer	E	bher 2010	Anth	Eluo	Dyre	Benz	Chry	Benz	Benz	Benz	Benz	lude	Dibe	Benz	Benz	Benz	Benz	HV BAH
FOI					0.5	пів/кв 05	пів/кв 05	пів/кв 0 5	під/кg	під/кд 0 5	пів/кв 05			пів/кв 0 5	0.5	під/кg	0 5	0 5	0.5	0 5	0.5	111g/ кg 0 5	0 5	0.5
CRCCARE 2011 Soil HSL F	for Direct Contact, HSL_D C	om/Ind		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.5
0-1m				11000						_						_							_	
NFPM 2013 HIL Commo	ercial/Industrial D			11000	-	-			-			-	-		-	-	-	-	-	-	-	40	-	4000
NEPM 2013 The, Comme	nmercial/Industrial D_for\	anour Intrusion	Sand																			40		4000
0-1m				NI	_	_	_	-	_		_	_	_	_	_	_	_		_	_	_	-	_	_
1-2m				NI	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
1 2111																								
Site	Sample ID	Sample Date	Matrix				_																	
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	4 - 4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	4
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	14 - 19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	14
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3	5.9
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	1.3 - 1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	1.3
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	< 0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	0.7 - 0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	0.7
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	49 - 57	<0.5	<0.5	0.6	0.6	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	50.2
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	< 0.5	< 0.5	< 0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	<0.5	-	< 0.5	<0.5	< 0.5	<0.5	<0.5	0.6	1.2	< 0.5
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	< 0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	<0.5 - 0.7	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	-	<0.5	< 0.5	<0.5	<0.5	<0.5	0.6	1.2	1.8
734 Princes Highway	QC100	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	QC200	3/08/2020	Natural Soil	<1 - 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	0.2
Chatical Commons																								
Statistical Summary				10	10	10	10	10	10	10	10	10	10	10	10	4	10	10	10	10	10	10	10	10
Number of Results				- 19	19	19	19	19	19	13	19	19	19	18	4		19	19	19	19	19	19	19	<u> </u>
Minimum Concentration				/	-0.1	-0.1	2 -01	2 -01	U -0.1		2 -01	U -0.1	U -0.1					U -01	U -0.1	U -0.1		20 F	70 F	
Minimum Concentration	I			<0.5 0.7			<u>\U.1</u>	<u>\U.1</u>		<0.1 1 C	<u>\U.1</u>			<u>\</u> U.5	1						<u.5< td=""><td><u>\U.5</u></td><td>1.0</td><td><u> </u></td></u.5<>	<u>\U.5</u>	1.0	<u> </u>
Maximum Concentration	Inimum Detect Iaximum Concentration						0.5	0.0		1.0	0.0			0.0	1							0.0	1.2	0.7
Maximum Concentration Maximum Detect				5/	<0.5	<0.5	0.0	1.1	<u.5< th=""><th>1.0</th><th>1.4</th><th><u.5< th=""><th>&lt;0.5</th><th>0.8</th><th></th><th></th><th>&lt;0.5</th><th><u.5< th=""><th>&lt;0.5</th><th><u.5< th=""><th><u.5< th=""><th>0.7</th><th>1.5</th><th>50.2</th></u.5<></th></u.5<></th></u.5<></th></u.5<></th></u.5<>	1.0	1.4	<u.5< th=""><th>&lt;0.5</th><th>0.8</th><th></th><th></th><th>&lt;0.5</th><th><u.5< th=""><th>&lt;0.5</th><th><u.5< th=""><th><u.5< th=""><th>0.7</th><th>1.5</th><th>50.2</th></u.5<></th></u.5<></th></u.5<></th></u.5<>	<0.5	0.8			<0.5	<u.5< th=""><th>&lt;0.5</th><th><u.5< th=""><th><u.5< th=""><th>0.7</th><th>1.5</th><th>50.2</th></u.5<></th></u.5<></th></u.5<>	<0.5	<u.5< th=""><th><u.5< th=""><th>0.7</th><th>1.5</th><th>50.2</th></u.5<></th></u.5<>	<u.5< th=""><th>0.7</th><th>1.5</th><th>50.2</th></u.5<>	0.7	1.5	50.2
Maximum Detect				5/			0.0	1.1		0.1 -	1.4			0.8								0.7	1.3	20.2
% of Results at or above the Detect Limit				3/	100	0	11	11	U 100	5	11	U 100	U 100	6	04	U 100	U 100	U 100	U 100	U 100	U 100	95 F	95 F	39
% of Results below the Detect Limit				63	100	100	89	89	100	95	89	100	100	94	94	100	100	100	100	100	100	5	5	61
% of Detects at or above				32	0	0	0	0	0	0	0	0	0	0	0	0	0	U	0	U	U	U	U	U 100
% of Results Below Guid	ennes or Non-Detect			68	68	68	68	100	/9	U	89	68	68	100	100	68	100	100	100	100	100	100	100	100

														PAH										
				nthalene	aphthylene	aphthene	rene	anthrene	racene	anthene	пе	(a) anthracene	sene	.o(k)fluoranthene	o(b+j)fluoranthene	.o(b+j) & Benzo(k)fluoranthene	o(a)pyrene	no(1,2,3-c,d)pyrene	nzo(a,h)anthracene	o(g,h,i)perylene	o(a)pyrene TEQ (Zero LOR)	o(a)pyrene TEQ (Half LOR)	o(a)pyrene TEQ (Full LOR)	s (Sum of total)
				Vapl	Acer	Acer	onl	her	Anth	ionl	yre	3enz	chry	3enz	3en z	3enz	3enz	nde	Dibe	3enz	3enz	3enz	3enz	ЧЧ
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
CRCCARE 2011 Soil HSL for	Direct Contact, HSL-D Co	m/Ind																						
0-1m				11000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 HIL, Commercia	al/Industrial D			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	4000
NEPM 2013 Soil HSL Comm	ercial/Industrial D, for Va	apour Intrusion, Sai	nd																					
0-1m				NL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-2m				NL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix				_				_													
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	4 - 4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	4
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	14 - 19	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	14
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3	5.9
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	1.3 - 1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	1.3
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	0.7 - 0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	0.7
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	<b>Building Material</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	49 - 57	<0.5	<0.5	0.6	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	50.2
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	<0.5 - 0.7	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	1.8
734 Princes Highway	QC100	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	QC200	3/08/2020	Natural Soil	<1 - 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	-	-	<0.2	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	0.2
				_				_	_	_			_	_	_	_	_	_	_	_	_	_	_	_
Statistical Summary				-	r	r	1						1											
Number of Results				19	19	19	19	19	19	19	19	19	19	18	18	1	19	19	19	19	19	19	19	18
Number of Detects	hber of Detects					0	2	2	0	1	2	0	0	1	1	0	0	0	0	0	0	18	18	7
Minimum Concentration	imum Concentration				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.2	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5
Minimum Detect	Ainimum Detect					ND	0.5	0.6	ND	1.6	0.6	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.6	1.2	0.7
Maximum Concentration					<0.5	<0.5	0.6	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3	50.2
Maximum Detect					ND	ND	0.6	1.1	ND	1.6	1.4	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.7	1.3	50.2
% of Results at or above the Detect Limit					0	0	11	11	0	5	11	0	0	6	6	0	0	0	0	0	0	95	95	39
% of Results below the Detect Limit					100	100	89	89	100	95	89	100	100	94	94	100	100	100	100	100	100	5	5	61
% of Detects at or above Gu	uidelines			32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guidelin	Results Below Guidelines or Non-Detect				68	68	68	100	79	0	89	68	68	100	100	68	100	100	100	100	100	100	100	100



				Phenols Halogenated Phenols													Herbicides					
				2,4-dimethylphenol	2,4-dinitrophenol	2-methylphenol	2-nitrophenol	3-&4-methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-nitrophenol	Phenol	Phenolics Total	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	tetrachlorophenols	Dinoseb
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	5	0.2	1	0.4	5	20	1	5	0.5	5	1	1	0.5	0.5	0.5	1	10	20
CRCCARE 2011 Soil HSL for	Direct Contact, HSL-D (	Com/Ind																				
0-1m				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 HIL, Commercia	al/Industrial D			-	-	-	-	-	-	-	-	-	240000	-	-	-	-	-	-	660	-	-
NEPM 2013 Soil HSL Comm	ercial/Industrial D, for	Vapour Intrusion, Sa	nd																			
0-1m				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-2m				-		-																-
Site	Sample ID	Sample Date	Matrix																			
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20

Site	Sample ID	Sample Date	Matrix											_								
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	<b>Building Material</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	0.7	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	QC100	3/08/2020	Natural Soil	< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	QC200	3/08/2020	Natural Soil	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-

Statistical Summary																			
Number of Results	18	18	18	18	18	18	18	18	18	18	1	18	18	18	18	18	18	18	18
Number of Detects	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Minimum Detect	0.7	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Maximum Detect	1.3	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
% of Results at or above the Detect Limit	11	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results below the Detect Limit	89	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% of Detects at or above Guidelines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guidelines or Non-Detect	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100



						CRC Ca	re TPH Fra	ctions					B	TEX						Me	tals				Inorga	anics
				C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum of total)	-1: C6-C10 less BTEX	:2: >C10-C16 less NAPHTHALENE	3enzene	Toluene	: thy lbenzene	(ylene (m & p)	(ylene (o)	<pre></pre>	Arsenic	Cadmium	Chromium (III+VI)	Copper	.ead	Mercury	Vickel	zinc	Moisture	Moisture Content (dried @ 103°C)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	%
EQL				20	50	100	100	100	20	50	0.1	0.1	0.1	0.2	0.1	0.3	2	0.4	5	5	5	0.1	5	5	0.1	1
NEPM 2013 EIL Comm./In	nd., low pH, CEC, clay conte	nt - aged																								
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	310	85	1800	-	60	230	-	-
NEPM 2013 ESL Comm./Ir	nd., Coarse Soil																									
0-2m				-	-	1700	3300	-	215	170	75	135	165	-	-	180	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Management	t Limits, C/I, Coarse Soil			-	-	<u>3500</u>	<u>10000</u>	-	<u>700</u>	<u>1000</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix																							
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	470	<50	<100	<100	<100	380	<50	<0.5	0.9	18	56	14	69	3.6	<0.4	16	<5	13	<0.1	<5	7.1	-	16
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	<5	10	180	<0.1	5.4	170	-	6.1
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5	<5	25	<0.1	<5	31	-	12
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	2800	<500	<1000	<1000	<1000	<u>2100</u>	<500	8.4	210	82	300	95	390	16	<0.4	32	<5	19	<0.1	<5	5.8	-	20
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<20	460	100	<100	560	<20	460	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	11	<0.4	16	17	470	0.1	<5	150	-	16
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	270	330	<100	<100	330	260	328.5	<0.1	<0.1	6.9	3.4	0.1	3.5	3.6	<0.4	18	<5	15	<0.1	<5	9	-	10
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	< 0.3	<2	<0.4	<5	<5	13	<0.1	<5	25	-	8.2
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	2.3	<0.4	7.8	<5	9.2	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	< 0.1	<0.2	<0.1	<0.3	3	<0.4	24	51	18	<0.1	92	99	-	7.4
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	0.1	0.7	<0.1	0.7	<2	<0.4	7.5	<5	7.8	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	140	<50	<100	<100	<100	120	<50	<0.1	<0.1	3.6	17	<0.1	17	5.7	<0.4	24	<5	16	<0.1	<5	<5	-	16
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	5.8	1.1	14	56	180	<0.1	14	210	-	7.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	3900	1700	<100	<100	1700	<u>3000</u>	<u>1643</u>	11	2.3	150	610	77	690	<2	<0.4	<5	<5	11	<0.1	<5	<5	-	11
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<20	1800	<100	<100	1800	<20	<u>1800</u>	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	2.9	<0.4	5.6	26	40	<0.1	<5	71	-	14
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<20	320	<100	<100	320	<20	320	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	19	<0.4	47	<5	22	<0.1	<5	7.2	-	17
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<20	310	<100	<100	310	<20	310	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	17	27	20	<0.1	40	69	-	9.8
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	450	1700	2800	910	5410	450	<u>1700</u>	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5.4	<5	11	<0.1	<5	<5	-	12
734 Princes Highway	QC100	3/08/2020	Natural Soil	<20	1500	2300	800	4600	<20	<u>1500</u>	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	6.1	6.4	35	<0.1	<5	34	-	13
734 Princes Highway	QC200	3/08/2020	Natural Soil	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<2	<1	<3	<4	<0.4	4	<1	5	<0.1	<1	5	12	-
Statistical Summary																										
Number of Results				19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	1	18
Number of Detects				6	8	3	2	8	6	8	2	3	6	6	4	6	10	1	16	7	19	1	4	14	1	18
Minimum Concentration				<20	<50	<100	<100	<50	<20	<50	<0.1	< 0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	4	<1	5	<0.1	<1	<5	12	6.1
Minimum Detect				140	310	100	800	310	120	310	8.4	0.9	0.1	0.7	0.1	0.7	2.3	1.1	4	6.4	5	0.1	5.4	5	12	6.1
IVIAXIMUM Concentration				3900	1800	2800	<1000	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	92	210	12	20
Maximum Detect				3900	1800	2800	910	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	92	210	12	20
% of Results at or above the	he Detect Limit			32	42	16	11	42	32	42	11	16	32	32	21	32	53	5	84	37	100	5	21	74	100	100
% of Results below the De	etect Limit			68	58	84	89	58	68	58	89	84	68	68	79	68	47	95	16	63	0	95	79	26	0	0
% of Detects at or above (	Guidelines			100	21	0	0	0	26	21	0	5	0	0	0	11	0	0	0	0	0	0	5	16	0	0
% of Results Below Guidel	lines or Non-Detect			0	79	100	100	100	74	79	100	95	100	100	100	89	100	100	100	100	100	100	95	84	100	100

						CRC Ca	are TPH Fra	octions					В	TEX						Me	tals				Inorga	anics
				C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum of total)	F1: C6-C10 less BTEX	F2: >C10-C16 less NAPHTHALENE	Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Roisture	Roisture Content (dried @ 103°C) ه
FOL				20	50	100	100	100	20	50	0 1	0.1	0.1	0.2	0.1	0.2	2	0.4	5	5	5	0.1	5	5	01	70 1
NEDM 2012 Ell Commu	d low pH CEC class conta	nt aged		20	50	100	100	100	20	30	0.1	0.1	0.1	0.2	0.1	0.5	2	0.4	J	J	J	0.1	J	J	0.1	T
0.2m	u., low pH, CEC, clay conte	nt - ageu															100		210	05	1000		<u> </u>	220		
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	310	85	1800	-	60	230	-	-
NEPM 2013 ESL Comm./In	id., Coarse Soil																									
0-2m				-	-	1700	3300	-	215	170	75	135	165	-	-	180	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Management	Limits, C/I, Coarse Soil			-	-	<u>3500</u>	<u>10000</u>	-	<u>700</u>	<u>1000</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix																							
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-
734 Princes Highway	CBH01-2 0	3/08/2020	Natural Soil	470	<50	<100	<100	<100	380	<50	<0.5	0.9	18	56	14	69	3.6	<0.4	16	<5	13	<0.1	<5	7 1	_	16
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	470	<50	<100	<100	<100	500	<50	<0.5	0.5	10	50	14	05	5.0	<b>NO.</b> 4	10	<5		<0.1	<5	7.1	_	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	<5	10	180	<0.1	5.4	170	_	6.1
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5	-5	25	<0.1	J.4 25	21		12
734 Princes Highway		2/08/2020	Natural Soil	200	<50	<1000	<1000	<100	2100	<50	0.1	210	0.1	200	0.1	200	16	<0.4	22	< <u>-</u>	2J 10	<0.1	<5	51	-	20
734 Princes Flighway		3/08/2020		2800	<500	100	<1000	<1000	2100	460	0.4	210	oZ	500	95 <0.1	590	10	<0.4	32	17	19	<0.1	<5	5.0	-	20
734 Princes Flighway		3/08/2020	Fill Notural Sail	<20	400	100	<100	220	20	40U	<0.1	<0.1	<0.1	<0.2	<0.1	<0.5	2.6	<0.4	10	17	470	0.1 <0.1	<0	150	-	10
734 Princes Highway	CBH03-2.0	3/08/2020		270	330	<100	<100	330	260	328.5	<0.1	<0.1	6.9	3.4	0.1	3.5	3.0	<0.4	18	<5	15	<0.1	<5	9	-	10
734 Princes Highway	CBH04-0.5	3/08/2020	FIII	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	<5	<5	13	<0.1	<5	25	-	8.2
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	2.3	<0.4	7.8	<5	9.2	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	< 0.1	< 0.1	<0.2	< 0.1	< 0.3	3	<0.4	24	51	18	<0.1	92	99	-	7.4
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	0.1	0.7	<0.1	0.7	<2	<0.4	7.5	<5	7.8	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	140	<50	<100	<100	<100	120	<50	<0.1	<0.1	3.6	17	<0.1	17	5.7	<0.4	24	<5	16	<0.1	<5	<5	-	16
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	5.8	1.1	14	56	180	<0.1	14	210	-	7.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	3900	1700	<100	<100	1700	<u>3000</u>	<u>1643</u>	11	2.3	150	610	77	690	<2	<0.4	<5	<5	11	<0.1	<5	<5	-	11
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<20	1800	<100	<100	1800	<20	<u>1800</u>	<0.1	<0.1	< 0.1	<0.2	<0.1	<0.3	2.9	<0.4	5.6	26	40	<0.1	<5	71	-	14
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<20	320	<100	<100	320	<20	320	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	19	<0.4	47	<5	22	<0.1	<5	7.2	-	17
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<20	310	<100	<100	310	<20	310	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	17	27	20	<0.1	40	69	-	9.8
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	450	1700	2800	910	5410	450	<u>1700</u>	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5.4	<5	11	<0.1	<5	<5	-	12
734 Princes Highway	QC100	3/08/2020	Natural Soil	<20	1500	2300	800	4600	<20	<u>1500</u>	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	6.1	6.4	35	<0.1	<5	34	-	13
734 Princes Highway	QC200	3/08/2020	Natural Soil	<25	<50	<100	<100	<50	<25	<50	<0.2	<0.5	<1	<2	<1	<3	<4	<0.4	4	<1	5	<0.1	<1	5	12	-
Statistical Summary				-	-				•	•		-		7	1	1				•						
Number of Results				19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	1	18
Number of Detects				6	8	3	2	8	6	8	2	3	6	6	4	6	10	1	16	7	19	1	4	14	1	18
Minimum Concentration				<20	<50	<100	<100	<50	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	4	<1	5	<0.1	<1	<5	12	6.1
Minimum Detect				140	310	100	800	310	120	310	8.4	0.9	0.1	0.7	0.1	0.7	2.3	1.1	4	6.4	5	0.1	5.4	5	12	6.1
Maximum Concentration				3900	1800	2800	<1000	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	92	210	12	20
Maximum Detect				3900	1800	2800	910	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	92	210	12	20
% of Results at or above th	ne Detect Limit			32	42	16	11	42	32	42	11	16	32	32	21	32	53	5	84	37	100	5	21	74	100	100
% of Results below the De	tect Limit			68	58	84	89	58	68	58	89	84	68	68	79	68	47	95	16	63	0	95	79	26	0	0
% of Detects at or above G	Guidelines			100	21	0	0	0	26	21	0	5	0	0	0	11	0	0	0	0	0	0	5	16	0	0
% of Results Below Guidel	ines or Non-Detect			0	79	100	100	100	74	79	100	95	100	100	100	89	100	100	100	100	100	100	95	84	100	100

						CRC Ca	are TPH Fra	actions					В	TEX						Me	tals				Inorga	anics
				ç C6-C10	c10-C16	c16-C34	c34-C40	<sub>&gt;</sub> C10 - C40 (Sum of total)	F1: C6-C10 less BTEX	F2: >C10-C16 less NAPHTHALENE	Benzene	, Toluene	Ethylbenzene	, Xylene (m & p)	× Xylene (o)	× Xylene Total	s Arsenic	, Cadmium	chromium (III+VI)	copper	د Lead	Mercury	, Nickel	s Zinc	R Moisture	ل Moisture Content (dried @ 103°C)
501				111g/ Kg		100	100	100	111g/ Kg		0.1	111g/Kg	0.1		111g/ Kg		nig/kg			тив/кв	шу/ку г	111g/ кg	нів/кв г	т г	/0	/0
		Laut		20	50	100	100	100	20	50	0.1	0.1	0.1	0.2	0.1	0.3	2	0.4	5	5	5	0.1	5	5	U.1	T
NEPINI 2013 EIL Comm./Ind.,	, IOW PH, CEC, clay con	tent - aged															4.66		246	0.5	1000		60	226		
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	310	85	1800	-	60	230	-	-
NEPM 2013 ESL Comm./Ind.	., Coarse Soil																									
0-2m				-	-	1700	3300	-	215	170	75	135	165	-	-	180	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Management L	imits, C/I, Coarse Soil			-	-	<u>3500</u>	<u>10000</u>	-	<u>700</u>	<u>1000</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix	-							_									1						
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	470	<50	<100	<100	<100	380	<50	<0.5	0.9	18	56	14	69	3.6	<0.4	16	<5	13	<0.1	<5	7.1	-	16
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.3	<2	<0.4	<5	10	180	<0.1	5.4	170	-	6.1
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<2	<0.4	5	<5	25	<0.1	<5	31	-	12
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	2800	<500	<1000	<1000	<1000	<u>2100</u>	<500	8.4	210	82	300	95	390	16	<0.4	32	<5	19	<0.1	<5	5.8	-	20
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<20	460	100	<100	560	<20	460	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	11	<0.4	16	17	470	0.1	<5	150	-	16
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	270	330	<100	<100	330	260	328.5	<0.1	<0.1	6.9	3.4	0.1	3.5	3.6	<0.4	18	<5	15	<0.1	<5	9	-	10
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.3	<2	<0.4	<5	<5	13	<0.1	<5	25	-	8.2
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	2.3	<0.4	7.8	<5	9.2	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	<0.1	< 0.1	< 0.1	<0.2	< 0.1	<0.3	3	<0.4	24	51	18	<0.1	92	99	-	7.4
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<20	<50	<100	<100	<100	<20	<50	< 0.1	< 0.1	0.1	0.7	< 0.1	0.7	<2	<0.4	7.5	<5	7.8	<0.1	<5	<5	-	13
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	140	<50	<100	<100	<100	120	<50	< 0.1	<0.1	3.6	17	< 0.1	17	5.7	<0.4	24	<5	16	<0.1	<5	<5	-	16
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<20	<50	<100	<100	<100	<20	<50	< 0.1	<0.1	< 0.1	< 0.2	< 0.1	< 0.3	5.8	1.1	14	56	180	<0.1	14	210	-	7.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	3900	1700	<100	<100	1700	3000	1643	11	2.3	150	610	77	690	<2	<0.4	<5	<5	11	< 0.1	<5	<5	-	11
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<20	1800	<100	<100	1800	<20	1800	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.3	2.9	<0.4	5.6	26	40	<0.1	<5	71	-	14
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<20	320	<100	<100	320	<20	320	< 0.1	<0.1	<0.1	<0.2	<0.1	<0.3	19	<0.4	47	<5	22	<0.1	<5	7.2	-	17
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<20	310	<100	<100	310	<20	310	< 0.1	<0.1	< 0.1	<0.2	< 0.1	< 0.3	<2	<0.4	17	27	20	<0.1	40	69	-	9.8
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	450	1700	2800	910	5410	450	1700	<0.1	<0.1	< 0.1	<0.2	< 0.1	<0.3	<2	<0.4	5.4	<5	11	<0.1	<5	<5	-	12
734 Princes Highway	QC100	3/08/2020	Natural Soil	<20	1500	2300	800	4600	<20	1500	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.3	<2	<0.4	6.1	6.4	35	< 0.1	<5	34	-	13
734 Princes Highway	QC200	3/08/2020	Natural Soil	<25	<50	<100	<100	<50	<25	<50	<0.2	< 0.5	<1	<2	<1	<3	<4	<0.4	4	<1	5	<0.1	<1	5	12	-
	1	<u> </u>						1	1	1		1														
Statistical Summary																										
Number of Results				19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	1	18
Number of Detects				6	8	3	20	8	6	8	2	3	6	6	4	6	10	1	16	7	19	1	4	14	1	18
Minimum Concentration				<20	<50	<100	<100	<50	<20	<50	<0.1	<0.1	<0.1	<0.2	<0.1	<03	<2	<0.4	4	<1	5	<0.1	<1	<5	12	<u>+0</u> 6.1
Minimum Detect				140	310	100	800	310	120	310	8.4	0.1	0.1	0.7	0.1	0.7	22	11	4	64	5	0.1	5.4	-,- ς	12	6.1
Maximum Concentration				3900	1800	2800	<1000	5410	3000	1800	11	210	150	610	95	690	19	1.1	47	56	470	0.1	9.4 92	210	12	20
Maximum Detect				3900	1200	2000	Q10	5410	3000	1800	11	210	150	610	95	600	19	1 1	 	56	470	0.1	92	210	12	20
% of Results at or above the	Detect Limit			22	1000	16	11	/12	222	1000	11	16	20	27	21	22	1.7		φ <i>1</i>	27	100	о.1 с	)2 )1	7/	100	100
% of Results below the Date	oct Limit			52 60	42 50	۵۷ ۲0	20	42 E0	52 60	42 E0	20	10	52	52 60	70	52 60	55 //7	05	16	62	100		70	74 26	100	100
% of Detects at or above Gu	idelines			100	- JO - 21	04 A	05	0	26	21	05	<u>04</u> с	00	00	19	11	47		10	03	0	- <del></del>	5	16	0	0
% of Posults Polow Guidalia	as or Non Dotost			100	70	100	100	100	7/	70	100		100	100	100	00	100	100	100	100	100	100	05	10	100	100
70 OF RESULTS BEIOW GUIDEIIN				U	19	100	100	1 100	/4	19	100	32	100	L 100	100	60	100	100	100	1 100	100	100	22	04	100	100





EQL				0.01% w/w
NEPM 2013 EIL Comm./I	nd., low pH, CEC, clay cont	ent - aged		-
0-2m				
NEPM 2013 ESL Comm./	nd., Coarse Soil			-
0-2m				-
NEPM 2013 Managemer	t Limits, C/I, Coarse Soil			
Site	Sample ID	Sample Date	Matrix	
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
				detected. No trace asbestos detected
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
				detected. No trace asbestos detected
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	-
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
				detected. No trace asbestos detected
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
				detected. No trace asbestos detected
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
				detected. No trace asbestos detected
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
				detected. No trace asbestos detected
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	A) Grey compressed fibre cement material: Chrysotile asbestos detected.
				B) White vitreous fibrous insulation material: Synthetic mineral fibre
				detected
794.9		2 /22 /2222		
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	
734 Princes Highway	СВН07-0.5	3/08/2020	FIII	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
724 Princes Highway		2/08/2020	Natural Soil	
734 Princes Highway		3/06/2020		No ashestos detected at the reporting limit of 0.01% w/w. Organic fibro
7 34 FTILLES FIBLIWAY	CD100-0.03-0.1	5/00/2020	'''	detected No trace ashestos detected
734 Princes Highway	CBH08-1 0	3/08/2020	Natural Soil	
734 Princes Highway	00100	3/08/2020	Natural Soil	-
731 Princes Highway	00200	3/08/2020	Natural Soil	_
7 57 FILICES HIghway		5/00/2020		- -

#### Statistical Summary

Statistical Summary	
Number of Results	9
Number of Detects	9
Minimum Concentration	1
Minimum Detect	1
Maximum Concentration	1
Maximum Detect	1
% of Results at or above the Detect Limit	100
% of Results below the Detect Limit	0
% of Detects at or above Guidelines	0
% of Results Below Guidelines or Non-Detect	100

Asbestos
Asbestos Reported Result
Comment
0.01% w/w
-
-
-
-



														PAH										-
																е								
				llene	thylene	ithene		hrene	ene	hene		inthracene	a	)fluoranthene	+j)fluoranthene	+j) & Benzo(k)fluoranthe	)pyrene	1,2,3-c,d)pyrene	(a,h)anthracene	,h,i)perylene	)pyrene TEQ (Zero LOR)	)pyrene TEQ (Half LOR)	)pyrene TEQ (Full LOR)	um of total)
				Vaphtha	Acenaph	Acenapł	luorene	henant	Anthrac	luorant	yrene	3enz(a)	Chrysen	3enzo(k	3enzo(b	3enzo(b	3enzo(a	ndeno(:	Dibenzo	3enzo(g	3enzo(a	3enzo(a	3enzo(a	PAHs (Si
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 EIL Comm./In	nd., low pH, CEC, clay con	tent - aged																						
0-2m				370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 ESL Comm./Ir	nd., Coarse Soil																							
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-
NEPM 2013 Management	t Limits, C/I, Coarse Soil			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site	Sampla ID	Samula Data	Matrix																					
734 Princes Highway					_	_									_		_		_	_	_	_	_	
734 Princes Highway	CBH01-0.3	3/08/2020	Natural Soil	-	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<05	<0.5	<05	-	<05	<05	<0.5	<05	<0.5	-	- 1.2	-
734 Princes Highway	CBH02-0 05-0 1	3/08/2020	Fill		-	-	-	-	-	-	-	-	-	-	-	_			-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	< 0.5	< 0.5	<0.5	< 0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	0.6	1.2	< 0.5
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2	< 0.5
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	14 - 19	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	14
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	< 0.5	< 0.5	<0.5	<0.5	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3	5.9
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	1.3 - 1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	< 0.5	<0.5	<0.5	-	< 0.5	< 0.5	< 0.5	<0.5	<0.5	0.6	1.2	1.3
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	0.7 - 0.9	< 0.5	<0.5	< 0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	<0.5	<0.5	0.6	1.2	0.7
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill R Helier Markerick	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway		3/08/2020		49-57	<0.5	<0.5	U.0 -0 5	U.0 -0 E	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2	>0.2 ∠0 ⊑
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2	<0.5
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	<0.5 - 0.7	< 0.5	< 0.5	0.5	<0.5	<0.5	<0.5	0.6	<0.5	< 0.5	<0.5	<0.5	-	< 0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	1.8
734 Princes Highway	QC100	3/08/2020	Natural Soil	< 0.5	< 0.5	<0.5	< 0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	-	< 0.5	<0.5	< 0.5	<0.5	< 0.5	0.6	1.2	<0.5
734 Princes Highway	QC200	3/08/2020	Natural Soil	<1 - 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	< 0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	0.2
Statistical Summary																								
Number of Posults				10	10	10	10	10	10	10	10	10	10	10	10	1	10	10	10	10	10	10	10	10
Number of Detects				7	13	1.9	2	2	1.9	19	25	19	1.5	10	10	1 0	19	19	19	19	19	19	19	10 7
Minimum Concentration				<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.2	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	, <0.5
Minimum Detect				0.7	ND	ND	0.5	0.6	ND	1.6	0.6	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.6	1.2	0.7
Maximum Concentration				57	<0.5	<0.5	0.6	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3	50.2
Maximum Detect				57	ND	ND	0.6	1.1	ND	1.6	1.4	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.7	1.3	50.2
% of Results at or above t	the Detect Limit			37	0	0	11	11	0	5	11	0	0	6	6	0	0	0	0	0	0	95	95	39
% of Results below the De	etect Limit			63	100	100	89	89	100	95	89	100	100	94	94	100	100	100	100	100	100	5	5	61
% of Detects at or above (	Guidelines			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guide	lines or Non-Detect			100	100	100	100	100	100	100	100	100	I 100	100	100	100	100	100	100	100	100	100	100	100

														PAH										
																hene					()			
				Japhthalene	vcenaphthylene	vcenaphthene	luorene	henanthrene	unthracene	luoranthene	yrene	senz(a) anthracene	hrysene	senzo(k)fluoranthene	senzo(b+j)fluoranthene	senzo(b+j) & Benzo(k)fluoran	senzo(a)pyrene	ndeno(1,2,3-c,d)pyrene	)ibenzo(a,h)anthracene	senzo(g,h,i)perylene	senzo(a)pyrene TEQ (Zero LOI	ienzo(a)pyrene TEQ (Half LOF	ienzo(a)pyrene TEQ (Full LOR	AHs (Sum of total)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPM 2013 EIL Comm./Ind	., low pH, CEC, clay cont	ent - aged																						
0-2m				370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 ESL Comm./Inc	d., Coarse Soil																							
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-	-	-	-
NEPM 2013 Management	Limits, C/I, Coarse Soil			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix	-																				
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	4 - 4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	4
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	0.6	1.2	< 0.5
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	0.6	1.2	< 0.5
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	14 - 19	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	-	< 0.5	< 0.5	< 0.5	<0.5	< 0.5	0.6	1.2	14
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<0.5	< 0.5	< 0.5	<0.5	1.1	< 0.5	1.6	1.4	< 0.5	< 0.5	0.8	1	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	1.3	5.9
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	1.3 - 1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	1.3
734 Princes Highway	CBH04-0.5	3/08/2020		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soll	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH05-2.0	3/08/2020		0.7 - 0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	0.7
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	FIII Duilding Material	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway		3/08/2020		49-57	<0.5	<0.5	0.6	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	50.2
734 Frinces Fighway		2/02/2020	Natural Sail	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 ∠0.5	<0.5	<0.5	<0.5 ∠0.5	-	<0.5 ∠0.5	<0.5	<0.5	<0.5 ∠0.5	<0.5 ∠0.5	0.0	1.2	<0.5
734 Princes Highway	CBH08-0 05-0 1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2	<0.5
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	_	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2	1.8
734 Princes Highway	00100	3/08/2020	Natural Soil	<0.5 0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2	<0.5
734 Princes Highway	0C200	3/08/2020	Natural Soil	<1 - 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	0.2
, o r r mileco mgintary	40200	3, 33, 2020		12 012	.012	.012	1011	1012	1011	1011	1012	.012	1012			1012	10100	1011	1012	1012		1010	1010	012
Statistical Summary																								
Number of Results				19	19	19	19	19	19	19	19	19	19	18	18	1	19	19	19	19	19	19	19	18
Number of Detects				7	0	0	2	2	0	1	2	0	0	1	1	0	0	0	0	0	0	18	18	7
Minimum Concentration				<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	< 0.5	<0.2	< 0.05	<0.1	<0.1	<0.1	< 0.5	< 0.5	< 0.5	<0.5
Minimum Detect				0.7	ND	ND	0.5	0.6	ND	1.6	0.6	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.6	1.2	0.7
Maximum Concentration				57	<0.5	<0.5	0.6	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3	50.2
Maximum Detect				57	ND	ND	0.6	1.1	ND	1.6	1.4	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.7	1.3	50.2
% of Results at or above th	e Detect Limit			37	0	0	11	11	0	5	11	0	0	6	6	0	0	0	0	0	0	95	95	39
% of Results below the Det	ect Limit			63	100	100	89	89	100	95	89	100	100	94	94	100	100	100	100	100	100	5	5	61
% of Detects at or above G	uidelines			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guidelin	nes or Non-Detect			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100



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								Phe	nols								Halo	genated Ph	enols			Herbicides
				2,4-dimethylphenol	2,4-dinitrophenol	2-methylphenol	2-nitrophenol	3-&4-methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-nitrophenol	Phenol	Phenolics Total	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	tetrachlorophenols	Dinoseb
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
				0.5	5	0.2	1	0.4	5	20	1	5	0.5	5	1	1	0.5	0.5	0.5	1	10	20
013 EIL Comm./In	id., low pH, CEC, clay con	tent - aged																				
				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
013 ESL Comm./II	nd., Coarse Soll																					
012 Managaman	t Limite C/L Coorse Soil			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UIS Managemen	Linnis, C/1, Coarse Son			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sample ID	Sample Date	Matrix																			
ces Highway		3/08/2020			_			-		-	_			_	_	_	_	_	_	_		
ices Highway	CBH01-2.0	3/08/2020	Natural Soil	<0.5	< 5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	_	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH02-0.05-0.1	3/08/2020	Fill		-	-0.2		10.4	~5	~20	~1	~5		-	-	-	-0.5		-0.5	-	-10	~20
ices Highway	CBH02-0.5	3/08/2020	Fill	<0.5	< 5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH02-1.0	3/08/2020	Natural Soil	13	<5	<0.2	<1	0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH02-2.0	3/08/2020	Fill	20.5	<5	<0.2	<1	<0.0	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH03-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH04-0 5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
cos Highway		3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
cos Highway	CBH05-0.05-0.1	3/08/2020		<0.5	<5	<0.2	<1	<0.4	<5	<20		<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
cos Highway	CBH05-2.0	2/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
		2/08/2020		<0.5	< <u>-</u>	<0.2	<1	<0.4	< <u> </u>	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
	CBH06-0.05-0.1	3/08/2020	Ruilding Material	<0.5		<0.Z	< <u> </u>	<0.4		×20	< <u>1</u>	< 5	<0.5	-	< <u>1</u>		<0.5	<0.5	<0.5	< <u>1</u>	<10	<20
cos Highway	CBH06-2.0	2/08/2020	Natural Soil	<0.5	- ~5	<0.2		<0.1	- 5	<20		~5	<0.5	-		- /1	<0.5	<05	<0.5		<10	<20
cos Highway		2/08/2020		<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	Свно7-0.5	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH08-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	CBH08-1 0	3/08/2020	Natural Soil	0.7	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	_	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	00100	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
ices Highway	0C200	3/08/2020	Natural Soil	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-	-	-
iees manuay	40200	0,00,2020												()								1
al Summary																						
of Results				18	18	18	18	18	18	18	18	18	18	1	18	18	18	18	18	18	18	18
of Detects				2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
m Concentration				< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<1	< 0.5	< 0.5	< 0.5	<1	<10	<20
m Detect				0.7	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Im Concentration				1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
im Detect				1.3	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sults at or above t	he Detect Limit			11	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sults below the De	etect Limit			89	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100
tects at or above	Guidelines			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sults Below Guide	lines or Non-Detect			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

								Phe	enols								Halog	genated Ph	enols			Herbicides
				2,4-dimethylphenol	2,4-dinitrophenol	2-methylphenol	2-nitrophenol	。 3-&4-methylphenol	4,6-Dinitro-2-methylphenol	, 4,6-Dinitro-o-cyclohexyl phenol	ہ 4-chloro-3-methylphenol	4-nitrophenol	Phenol	Phenolics Total	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	s 2-chlorophenol	Pentachlorophenol	tetrachlorophenols	, Dinoseb
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/кg	mg/kg	mg/kg	mg/kg
EQL				0.5	5	0.2	1	0.4	5	20	1	5	0.5	5	1	1	0.5	0.5	0.5	1	10	20
NEPM 2013 EIL Comm./Ind.	, low pH, CEC, clay cont	ent - aged																				
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 ESL Comm./Ind.	, Coarse Soil																					
0-2m				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEPM 2013 Management L	imits, C/I, Coarse Soil			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
																	•					
Site	Sample ID	Sample Date	Matrix																			
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	< 0.5	<5	< 0.2	<1	< 0.4	<5	<20	<1	<5	< 0.5	-	<1	<1	< 0.5	<0.5	< 0.5	<1	<10	<20
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-			-	-20		-	-	_	-	-	-	-	-	-		-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<0.5	~5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
724 Princes Highway		2/08/2020	Natural Sail	<0.5		<0.2	<1	<0.4		<20	<1		<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<0	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-2.0	3/08/2020		1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	< 0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	< 0.5	-	<1	<1	< 0.5	< 0.5	< 0.5	<1	<10	<20
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	< 0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	< 0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	< 0.5	<1	<10	<20
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	< 0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	< 0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	< 0.5	<5	< 0.2	<1	<0.4	<5	<20	<1	<5	< 0.5	-	<1	<1	< 0.5	< 0.5	< 0.5	<1	<10	<20
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	< 0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	СВН07-2.0	3/08/2020	Natural Soil	< 0.5	<5	< 0.2	<1	< 0.4	<5	<20	<1	<5	< 0.5	-	<1	<1	< 0.5	< 0.5	< 0.5	<1	<10	<20
734 Princes Highwav	CBH08-0.05-0.1	3/08/2020	Fill	< 0.5	<5	< 0.2	<1	<0.4	<5	<20	<1	<5	< 0.5	-	<1	<1	< 0.5	< 0.5	< 0.5	<1	<10	<20
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	0.7	<5	< 0.2	<1	< 0.4	<5	<20	<1	<5	< 0.5	-	<1	<1	< 0.5	< 0.5	< 0.5	<1	<10	<20
734 Princes Highway	00100	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	00200	3/08/2020	Natural Soil	-	-	-	-	-	-	-20	-	-	-	<5	-	-	-	-	-0.5	-		-
754 Thilees Highway	QC200	5/00/2020												15								
Statistical Commence																						
				40	40	10	4.0	4.0	10	10	40	10	10	4	10	10	40	40	40	40	10	10
				18	18	18	18	18	18	18	18	18	18		18	18	18	18	18	18	18	18
Number of Detects				2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Minimum Detect				0.7	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Maximum Detect				1.3	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
% of Results at or above the	Detect Limit			11	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results below the Dete	ct Limit			89	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% of Detects at or above Gu	idelines			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guidelin	es or Non-Detect			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100



						ТРН					B	TEX						Me	tals				Inor	rgani
								um of total)			р С	(d					(1/+1							
				ව '9 mg/kg	C10 - C14	C15 - C28 mg/kg	95-623 mg/kg	+C10 - C36 (S mg/kg	eue Beuzeue mg/kg	<b>Dullene</b> mg/kg	Ethylbenzene mg/kg	xylene (m &	(o) Xylene (o)	gy/gg gg/gg	Arsenic mg/kg	Cadmium mg/kg	Chromium (I mg/kg	<b>Copper</b> mg/kg	<b>Fead</b> mg/kg	Mercury Mg/kg	Nicke mg/kg	<b>Zinc</b> mg/kg	% Moisture	
EQL				20	20	50	50	50	0.1	0.1	0.1	0.2	0.1	0.3	2	0.4	5	5	5	0.1	5	5	0.1	
NSW 2014 Excavated Natur	ral Material (Absolute N	lax)		-	-	-	-	500	0.5	65	25	-	-	15	40	1	150	200	100	1	60	300	-	
NSW 2014 General Solid Wa	aste CT1 (No Leaching)			650	-	-	-	10000	10	288	600	-	-	1000	100	20	100	-	100	4	40	-	-	
NSW 2014 Restricted Solid	Waste CT2 (No Leaching	g)		2600	-	-	-	40000	40	1152	2400	-	-	4000	400	80	400	-	400	16	160	-	-	
Site	Sample ID	Sample Date	Matrix																					
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	250	<20	<50	<50	<50	< 0.5	0.9	18	56	14	69	3.6	<0.4	16	<5	13	<0.1	<5	7.1	-	
734 Princes Highway																								
	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5	3/08/2020 3/08/2020	Fill	- <20	- <20	- <50	- <50	- <50	- <0.1	- <0.1	- <0.1	-<0.2	- <0.1	-<0.3	- <2	- <0.4	- <5	- 10	- 180	- <0.1	- 5.4	- 170	-	
734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0	3/08/2020 3/08/2020 3/08/2020	Fill Fill Natural Soil	- <20 <20	- <20 <20	- <50 <50	- <50 <50	- <50 <50	- <0.1 <0.1	- <0.1 <0.1	- <0.1 <0.1	- <0.2 <0.2	<0.1 <0.1	- <0.3 <0.3	- <2 <2	- <0.4 <0.4	- <5 5	- 10 <5	- 180 25		- 5.4 <5	- 170 31		
734 Princes Highway 734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill Fill Natural Soil Natural Soil	- <20 <20 1900	- <20 <20 1100	- <50 <500	- <50 <50 <500	- <50 <50 1100	- <0.1 <0.1 8.4	- <0.1 <0.1 210	- <0.1 <0.1 82	- <0.2 <0.2 300	- <0.1 <0.1 95	- <0.3 <0.3 <b>390</b>	- <2 <2 16	<0.4 <0.4 <0.4	- <5 5 32	- 10 <5 <5	- 180 25 19	<0.1 <0.1 <0.1	- 5.4 <5 <5	- 170 31 5.8	- - -	
734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill Fill Natural Soil Natural Soil Fill	- <20 <20 1900 <20	- <20 <20 1100 1200	- <50 <500 180	- <50 <50 <500 <50	- <50 <50 1100 1380	- <0.1 <0.1 <b>8.4</b> <0.1	- <0.1 <0.1 <b>210</b> <0.1	- <0.1 <0.1 <b>82</b> <0.1	- <0.2 <0.2 <b>300</b> <0.2	- <0.1 <0.1 95 <0.1	- <0.3 <0.3 <b>390</b> <0.3	- <2 <2 16 11	- <0.4 <0.4 <0.4 <0.4	- <5 5 32 16	- 10 <5 <5 17	- 180 25 19 470	- <0.1 <0.1 <0.1 0.1	- 5.4 <5 <5 <5	- 170 31 5.8 150	- - - - -	
734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill Fill Natural Soil Natural Soil Fill Natural Soil	- <20 <20 1900 <20 180	- <20 <20 1100 1200 850	- <50 <500 180 130	- <50 <50 <500 <50 <50	- <50 <50 1100 1380 980	- <0.1 <0.1 <b>8.4</b> <0.1 <0.1	- <0.1 <0.1 <b>210</b> <0.1 <0.1	- <0.1 <0.1 <b>82</b> <0.1 6.9	- <0.2 <0.2 300 <0.2 3.4	- <0.1 <0.1 95 <0.1 0.1	- <0.3 <0.3 <b>390</b> <0.3 <b>3.5</b>	- <2 16 11 3.6	- <0.4 <0.4 <0.4 <0.4 <0.4	- <5 5 32 16 18	- 10 <5 <5 17 <5	- 180 25 19 470 15	- <0.1 <0.1 <0.1 0.1 <0.1	- 5.4 <5 <5 <5 <5	- 170 31 5.8 150 9	- - - - - -	
734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill Fill Natural Soil Natural Soil Fill Natural Soil Fill	- <20 <20 1900 <20 180 <20	- <20 <20 1100 1200 850 <20	- <50 <50 <500 180 130 <50	- <50 <50 <500 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50	- <0.1 <0.1 8.4 <0.1 <0.1 <0.1	- <0.1 <0.1 210 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1	<0.2 <0.2 300 <0.2 3.4 <0.2	- <0.1 <0.1 95 <0.1 0.1 <0.1	- <0.3 <0.3 <b>390</b> <0.3 <b>3.5</b> <0.3	- <2 16 11 3.6 <2	<0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4	- <5 5 32 16 18 <5	- 10 <5 <5 17 <5 <5 <5	- 180 25 19 470 15 13	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 <5 <5	- 170 31 5.8 150 9 25	- - - - - - - -	
734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill         Natural Soil	- <20 <20 1900 <20 180 <20 <20 <20	- <20 20 1100 1200 850 <20 <20	- <50 <500 180 130 <50 <50	- <50 <500 <500 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 210 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <b>82</b> <0.1 6.9 <0.1 <0.1	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2	- <0.1 95 <0.1 0.1 <0.1 <0.1	- <0.3 <0.3 <b>390</b> <0.3 <b>3.5</b> <0.3 <0.3	- <2 16 11 3.6 <2 2.3		- <5 32 16 18 <5 7.8	- 10 <5 <5 17 <5 <5 <5 <5	- 180 25 19 470 15 13 9.2	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <5 <5 <5 <5 <5 <5 <5 <5 <5	- 170 31 5.8 150 9 25 <5	- - - - - - - - -	
734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill Fill Natural Soil Natural Soil Fill Natural Soil Fill Natural Soil Fill	- <20 <20 1900 <20 180 <20 <20 <20 <20	- <20 1100 1200 850 <20 <20 <20	- <50 <500 180 130 <50 <50 <50	- <50 <50 <500 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50	- <0.1 <0.1 8.4 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 <0.2	- <0.1 <0.1 95 <0.1 0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 <b>390</b> <0.3 <0.3 <0.3 <0.3	- <2 16 11 3.6 <2 2.3 3	<0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4	- <5 5 32 16 18 <5 7.8 24	- 10 <5 <5 17 <5 <5 <5 <5 <5 51	- 180 25 19 470 15 13 9.2 18	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 <5 <5 <5 92	- 170 31 5.8 150 9 25 <5 99	- - - - - - - - - - - -	
734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill         Natural Soil	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 <20	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20	- <50 <500 (500) 180 130 <50 <50 <50 <50 <50	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50	- <0.1 <0.1 8.4 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 210 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 <0.1	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 <0.2 0.7	- <0.1 <0.1 95 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 <b>390</b> <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 0.7	- <2 <2 16 11 3.6 <2 2.3 3 <2		- <5 5 32 16 18 <5 7.8 24 7.5	- 10 <5 <5 17 <5 <5 <5 <5 51 <5	- 180 25 19 470 15 13 9.2 18 7.8	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 <5 92 <5	- 170 31 5.8 150 9 25 <5 99 <5	- - - - - - - - - - - -	
734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill         Natural Soil	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 <20 91	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 <20 62	- <50 <500 180 130 <50 <50 <50 <50 <50 <50	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 0.1 3.6	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 <0.2 0.7 17	- <0.1 95 <0.1 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 0.7 17	- <2 16 11 3.6 <2 2.3 3 <2 5.7	- <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4	- <5 5 32 16 18 <5 7.8 24 7.5 24	- 10 <5 <5 17 <5 <5 <5 51 <5 <5 <5	- 180 25 19 470 15 13 9.2 18 7.8 16	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 <5 92 <5 <5	- 170 31 5.8 150 9 25 <5 <5 99 <5 <5	- - - - - - - - - - - - - - - - -	
734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 <20 <20 <20 <20 <2	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 62 60	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 0.1 3.6 <0.1	- <0.2 <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 0.7 17 <0.2	- <0.1 <0.1 95 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 0.7 17 <0.3	- <2 16 11 3.6 <2 2.3 3 <2 5.7 5.8	- <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4	- <5 5 32 16 18 <5 7.8 24 7.5 24 14	- 10 <5 <5 17 <5 <5 <5 51 <5 <5 <5 <5 56	- 180 25 19 470 15 13 9.2 18 7.8 16 180	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 92 <5 <5 14	- 170 31 5.8 150 9 25 <5 <5 99 <5 <5 <5 210	- - - - - - - - - - - - - - - - -	
734 Princes Highway734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1-A	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill         Batural Soil         Building Material	- <20 <20 1900 <20 20 <20 <20 <20 <20 <20 <20 <20 <2	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 62 60 -	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 <50 62 60 -	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 <0.1 0.1 3.6 <0.1	<0.2 <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 0.7 17 <0.2	- <0.1 95 <0.1 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 0.7 17 <0.3 -	- <2 <2 16 11 3.6 <2 2.3 3 <2 5.7 5.8 -		- <5 32 16 18 <5 7.8 24 7.5 24 14 -	- 10 <5 <5 17 <5 <5 <5 51 <5 <5 <5 56 -	- 180 25 19 470 15 13 9.2 18 7.8 16 180 -	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 92 <5 5 14 -	- 170 31 5.8 150 9 25 <5 <5 99 <5 <5 <5 210 -	- - - - - - - - - - - - - - - - - -	
734 Princes Highway734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1-A CBH06-2.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	FillFillNatural SoilNatural SoilFillNatural SoilFillNatural SoilFillNatural SoilFillNatural SoilFillBuilding MaterialNatural Soil	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 <20 <20 <20 <20 <2	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 <20 <20 <20 <2	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 - 120	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 0.1 3.6 <0.1 - 150	- <0.2 <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 0.7 17 <0.2 - 610	- <0.1 95 <0.1 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 <0.3 0.7 17 <0.3 - 690	- <2 <2 16 11 3.6 <2 2.3 3 <2 5.7 5.8 - <2		- <5 5 32 16 18 <5 7.8 24 7.5 24 14 - <5	- 10 <5 <5 <5 <5 <5 <5 51 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	- 180 25 19 470 15 13 9.2 18 7.8 16 180 - 11	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- 5.4 <5 <5 <5 <5 <5 92 <5 <5 14 - <5	- 170 31 5.8 150 9 25 <5 <5 99 <5 <5 210 - <5	- - - - - - - - - - - - - - - - - - -	
734 Princes Highway734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1-A CBH06-2.0 CBH07-0.5	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill         Building Material         Natural Soil         Fill	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 <20 91 <20 - 2800 <20	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 <20 62 60 - 3800 4500	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 <50 <50 <120 120	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 0.1 3.6 <0.1 - 150 <0.1	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 0.7 17 <0.2 - 610 <0.2	- <0.1 <0.1 95 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 <0.3 0.7 17 <0.3 - 690 <0.3	- <2 <2 16 11 3.6 <2 2.3 3 <2 2.3 3 <2 5.7 5.8 - <2 2.9		- <5 32 16 18 <5 7.8 24 7.5 24 7.5 24 14 - <5 5.6	- 10 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	- 180 25 19 470 15 13 9.2 18 7.8 16 180 - 11 40	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- 5.4 <5 <5 <5 <5 92 <5 14 - <5 <5 5 25 5 5 5 5 5 5 5 5 5 5 5 5 5	- 170 31 5.8 150 9 25 <5 99 <5 <5 210 - <5 210 - <5 71	- - - - - - - - - - - - - - - - - - -	
734 Princes Highway 734 Princes Highway	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-0.5 CBH04-0.5 CBH04-0.5 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1-A CBH06-0.05-0.1-A CBH06-2.0 CBH07-0.5 CBH07-2.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Natural Soil         Fill         Natural Soil         Natural Soil         Natural Soil	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 <20 91 <20 - <b>2800</b> <20 <20	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 <20 62 60 - 3800 4500 360	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 - 120 120 110	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 62 60 - 3920 4620 470	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 0.1 3.6 <0.1 - 150 <0.1 <0.1	- <0.2 <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 0.7 17 <0.2 - 610 <0.2 <0.2 <0.2 - 610 <0.2 <0.2	- <0.1 95 <0.1 0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 0.7 17 <0.3 - 690 <0.3 <0.3 <0.3	- <2 <2 16 11 3.6 <2 2.3 3 <2 2.3 3 <2 5.7 5.8 - <2 2.9 19	- <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 - <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4 <0.4	- <5 5 32 16 18 <5 7.8 24 7.5 24 7.5 24 14 - <5 5.6 47	- 10 <5 <5 17 <5 <5 51 <5 51 <5 56 - <5 56 - <5 26 <5	- 180 25 19 470 15 13 9.2 18 7.8 16 180 - 11 40 22	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- 5.4 <5 <5 <5 <5 92 <5 14 - <5 <5 <5 <5 5 <5 5 <5 <5 <5	- 170 31 5.8 150 9 25 <5 <5 25 <5 210 - <5 71 7.2	- - - - - - - - - - - - - - - - - - -	
<ul> <li>734 Princes Highway</li> </ul>	CBH02-0.05-0.1 CBH02-0.5 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-0.5 CBH04-0.5 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1 CBH06-0.05-0.1-A CBH06-2.0 CBH07-0.5 CBH07-2.0 CBH08-0.05-0.1	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Fill         Fill	- <20 <20 1900 <20 180 <20 <20 <20 <20 20 91 <20 - 2800 <20 <20 <20 <20 <20 <20 <20 <20	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 62 60 - 3800 4500 360 350	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 <50 <50 <120 120 110 100	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 3.6 <0.1 - 150 <0.1 <0.1 <0.1 <0.1	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 0.7 17 <0.2 - 610 <0.2 <0.2 <0.2 - 610 <0.2 <0.2 <0.2 <0.2 - 610 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2	- <0.1 <0.1 95 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 - 690 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0	- <2 <2 16 11 3.6 <2 2.3 3 <2 2.3 3 <2 5.7 5.8 - <2 2.9 19 <2		- <5 32 16 18 <5 7.8 24 7.5 24 7.5 24 14 - <5 5.6 47 17	- 10 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	- 180 25 19 470 15 13 9.2 18 7.8 16 180 - 11 40 22 20	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- 5.4 <5 <5 <5 <5 92 <5 14 - <5 <5 <5 14 40	- 170 31 5.8 150 9 25 <5 99 <5 <5 210 - <5 210 - <5 71 7.2 69		
<ul> <li>734 Princes Highway</li> </ul>	CBH02-0.05-0.1 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-2.0 CBH04-0.5 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1 CBH06-0.05-0.1 CBH06-2.0 CBH06-2.0 CBH07-0.5 CBH07-2.0 CBH08-1.0	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	Fill         Fill         Natural Soil         Fill         Building Material         Natural Soil         Fill         Natural Soil	- <20 <20 1900 <20 180 <20 <20 <20 <20 <20 20 - - 2800 <20 - 2800 <20 <20 - 20 2800 <20 - 20 20 20 20 20 20 20 20 20 20 20 20 20	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 62 60 - 3800 4500 360 350 1700	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 <50 <50 <5	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 62 60 - 3920 4620 470 450 5600	- <0.1 <0.1 8.4 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 0.1 3.6 <0.1 - 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<5 26 <5 27 <5	- 180 25 19 470 15 13 9.2 18 7.8 16 180 - 11 40 22 20 11	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- 5.4 <5 <5 <5 <5 92 <5 92 <5 14 - <5 <5 40 <5	- 170 31 5.8 150 9 25 <5 <5 210 - <5 210 - <5 71 7.2 69 <5		
<ul> <li>734 Princes Highway</li> </ul>	CBH02-0.05-0.1 CBH02-1.0 CBH02-2.0 CBH03-0.5 CBH03-0.5 CBH04-0.5 CBH04-0.5 CBH04-1.0 CBH05-0.05-0.1 CBH05-1.0 CBH05-2.0 CBH06-0.05-0.1 CBH06-0.05-0.1 CBH06-2.0 CBH07-0.5 CBH07-2.0 CBH08-0.05-0.1 CBH08-1.0 QC100	3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020 3/08/2020	FillFillNatural SoilNatural SoilFillNatural SoilSoilSoilSoilSoilSoilSoilSoil	- <20 <20 <1900 <20 <180 <20 <20 <20 <20 <20 <20 <20 <20 <20 <2	- <20 <20 1100 1200 850 <20 <20 <20 <20 <20 <20 62 60 - 3800 4500 360 350 1700 1800	- <50 <500 180 130 <50 <50 <50 <50 <50 <50 <50 <50 <50 120 120 120 110 100 2700 2200	- <50 <50 <50 <50 <50 <50 <50 <50 <50 <50	- <50 <50 1100 1380 980 <50 <50 <50 <50 <50 62 60 - 3920 4620 470 450 5600 5000	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- <0.1 <0.1 82 <0.1 6.9 <0.1 <0.1 <0.1 3.6 <0.1 - 150 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.2 300 <0.2 3.4 <0.2 <0.2 <0.2 <0.2 0.7 17 <0.2 - 610 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2 <0.2	- <0.1 <0.1 95 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	- <0.3 <0.3 390 <0.3 3.5 <0.3 <0.3 <0.3 <0.3 0.7 17 <0.3 - 690 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.3 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	- <2 <2 16 11 3.6 <2 2.3 3 <2 2.3 3 <2 5.7 5.8 - <2 2.9 19 <2 2.9 19 <2 <2 <2 <2		$ \begin{array}{c} -\\ <5\\ 32\\ 16\\ 18\\ <5\\ 7.8\\ 24\\ 7.5\\ 24\\ 7.5\\ 24\\ 14\\ -\\ <5\\ 5.6\\ 47\\ 17\\ 5.4\\ 6.1\\ \end{array} $	- 10 <5 <5 17 <5 <5 51 <5 56 - <5 56 - <5 26 <5 27 <5 6.4	- 180 25 19 470 15 13 9.2 18 7.8 16 180 - 11 40 22 20 11 35	- <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.	- 5.4 <5 <5 <5 <5 92 <5 5 14 - <5 <5 <5 <5 40 <5 <5	- 170 31 5.8 150 9 25 <5 99 <5 <5 210 - <5 210 - <5 71 7.2 69 <5 34		



EQL	
NSW 2014 Excavated Natural Material (Absolute Max)	
NSW 2014 General Solid Waste CT1 (No Leaching)	
NSW 2014 Restricted Solid Waste CT2 (No Leaching)	

Site	Sample ID	Sample Date	Matrix	
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	
734 Princes Highway		2/08/2020		No ashestos detectod at the reporting limit of $0.01\%$ w/w. Organic fibro
754 Philices Highway	СБП02-0.05-0.1	5/08/2020	F111	detected. No trace asbestos detected
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	<ul> <li>A) Grey compressed fibre cement material: Chrysotile asbestos detected.</li> <li>B) White vitreous fibrous insulation material: Synthetic mineral fibre detected</li> </ul>
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	СВН07-0.5	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	-
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	No asbestos detected at the reporting limit of 0.01% w/w. Organic fibre detected. No trace asbestos detected
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	-
734 Princes Highway	QC100	3/08/2020	Natural Soil	-
734 Princes Highway	QC200	3/08/2020	Natural Soil	-

#### **Statistical Summary**

-statistical Summary	
Number of Results	9
Number of Detects	9
Minimum Concentration	1
Minimum Detect	1
Maximum Concentration	1
Maximum Detect	1
% of Results at or above the Detect Limit	100
% of Results below the Detect Limit	0
% of Detects at or above Guidelines	0
% of Results Below Guidelines or Non-Detect	100





I B.1																							
														РАН			-		-				
				Vaphthalene	Acenaphthylene	Acenaphthene	luorene	henanthrene	Anthracene	luoranthene	vrene	3enz(a) anthracene	chrysene	3enzo(k)fluoranthene	3enzo(b+j)fluoranthene	3enzo(b+j) & Benzo(k)fluoranthene	3enzo(a)pyrene	ndeno(1,2,3-c,d)pyrene	)ibenzo(a,h)anthracene	3enzo(g,h,i)perylene	3enzo(a)pyrene TEQ (Zero LOR)	3enzo(a)pyrene TEQ (Half LOR)	3enzo(a)pyrene TEQ (Full LOR)
				mg/kg	ng/kg	mg/kg	mg/kg	mg/kg	ng/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	 mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NSW 2014 Excavated Nati	ural Material (Absolute N	Max)		-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
NSW 2014 General Solid V	Waste CT1 (No Leaching)			-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	-	-	-	-	-	-
NSW 2014 Restricted Solid	u waste CTZ (NO Leachin	ig <i>)</i>		-	-	-	-	-	-	-	-	-	-	-	-	-	5.2	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix																				
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-		-		-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	4 - 4.3	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	14 - 19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5	1.6	1.4	< 0.5	< 0.5	0.8	1	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	1.3
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	1.3 - 1.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	-	< 0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH04-0.5	3/08/2020	FIII Natural Sail	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway		3/08/2020		< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	< 0.5	0.6	1.2
734 Princes Highway	СВН05-0.05-0.1	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	07-09	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.0	1.2
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	49 - 57	<0.5	< 0.5	0.6	0.6	<0.5	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	0.6	1.2
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	< 0.5	<0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	1.2
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	< 0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	< 0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	<0.5 - 0.7	<0.5	< 0.5	0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	QC100	3/08/2020	Natural Soil	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2
734 Princes Highway	QC200	3/08/2020	Natural Soil	<1 - 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.2	< 0.05	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
Statistical Summary																							
Number of Results				19	19	19	19	19	19	19	19	19	19	18	18	1	19	19	19	19	19	19	19
Number of Detects				7	0	0	2	2	0	1	2	0	0	1	1	0	0	0	0	0	0	18	18
Minimum Concentration				<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.2	<0.05	<0.1	<0.1	<0.1	<0.5	<0.5	< 0.5
Minimum Detect				0.7	ND	ND	0.5	0.6	ND	1.6	0.6	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.6	1.2
Maximum Concentration				57	<0.5	<0.5	0.6	1.1	<0.5	1.6	1.4	<0.5	<0.5	0.8	1	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	1.3
Maximum Detect				57	ND	ND	0.6	1.1	ND	1.6	1.4	ND	ND	0.8	1	ND	ND	ND	ND	ND	ND	0.7	1.3
% of Results at or above t	he Detect Limit			37	0	0	11	11	0	5	11	0	0	6	6	0	0	0	0	0	0	95	95
% of Results below the De	etect Limit			63	100	100	89	89	100	95	89	100	100	94	94	100	100	100	100	100	100	5	5
% of Detects at or above (	Guidelines			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
/ of Doculto Dolouy Cuidal	lines or Non Detect							-					-						-				



							Phe	enols								Halo	genated Ph	enols			Herbicides	
																		Ĭ				
				2,4-dimethylphenol	2,4-dinitrophenol	2-methylphenol	2-nitrophenol	3-&4-methylphenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-chloro-3-methylphenol	4-nitrophenol	Phenol	Phenolics Total	2,4,5-trichlorophenol	2,4,6-trichlorophenol	2,4-dichlorophenol	2,6-dichlorophenol	2-chlorophenol	Pentachlorophenol	tetrachlorophenols	Dinoseb
501				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL		• •		0.5	5	0.2	1	0.4	5	20	1	5	0.5	5	1	1	0.5	0.5	0.5	1	10	20
NSW 2014 Excavated Natu	ral Material (Absolute N	vlax)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NSW 2014 General Solid W	Vaste CT1 (No Leaching)			-	-	4000	-	-	-	-	-	-	-	-	22000	40	-	-	-	-		-
NSW 2014 Restricted Solid	Waste CT2 (NO Leachin	ig)		-	-	10000	-	-	-	-	-	-	-	-	52000	100	-	-	-	-	-	-
Site	Sample ID	Sample Date	Matrix																			
734 Princes Highway	CBH01-0.5	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 1	-
734 Princes Highway	CBH01-2.0	3/08/2020	Natural Soil	< 0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-0.05-0.1	3/08/2020	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH02-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH03-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH03-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH04-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH04-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH06-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH06-0.05-0.1-A	3/08/2020	Building Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
734 Princes Highway	CBH06-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH07-0.5	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH07-2.0	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH08-0.05-0.1	3/08/2020	Fill	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	0.7	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	QC100	3/08/2020	Natural Soil	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	QC200	3/08/2020	Natural Soil	-	-	-	-	-	-	-	-	-	-	<5	-	-	-	-	-	-		-
Statistical Summary																						
Number of Results				18	18	18	18	18	18	18	18	18	18	1	18	18	18	18	18	18	18	18
Number of Detects				2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Minimum Detect				0.7	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				1.3	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Maximum Detect				1.3	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
% of Besults at or above th	o Dotoct Limit			11	0	0	0	6	0	0	0	0	0	0	Ο	0	0	0	0	0		0

						Pho	nols								Halog	enated Ph	enols			Herbicides		
								File	11013								TialOg	senated Fil				Therbicides
				-dimethylphenol	-dinitrophenol	nethylphenol	itrophenol	k4-methylphenol	-Dinitro-2-methylphenol	-Dinitro-o-cyclohexyl phenol	hloro-3-methylphenol	itrophenol	enol	enolics Total	,5-trichlorophenol	,6-trichlorophenol	-dichlorophenol	-dichlorophenol	hlorophenol	ntachlorophenol	rachlorophenols	loseb
				2,4	2,4	, 2-r	, 2-r	е с	4,6	4,6	4	, 4-r	РЧ	Ч	2,4	2,4	, 2,4	2,6	2-6	Ъе "	tet	Di
501				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL				0.5	5	0.2	1	0.4	5	20	1	5	0.5	5	1	1	0.5	0.5	0.5	1	10	20
NSW 2014 Excavated Natu	ral Material (Absolute N	lax)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NSW 2014 General Solid W	aste CT1 (No Leaching)			-	-	4000	-	-	-	-	-	-	-	-	8000	40	-	-	-	-	-	-
NSW 2014 Restricted Solid	Waste CT2 (No Leaching	g)		-	-	16000	-	-	-	-	-	-	-	-	32000	160	-	-	-	-	-	-
Sito	Sample ID	Sample Date	Matrix																			
Sile		Sample Date				_																
734 Princes Highway		3/08/2020	Fill Natural Soil	-05	-	<0.2	- 21	0 1	-	<20	_	- <5	<0.5	-	-	-	-05	-05	-05	-	<10	-20
734 Princes Highway	CBH01-2.0	3/08/2020		<0.5	< >	<0.Z		<0.4	< >	< <u>20</u>	×1	< 5	<0.5	-	< <u> </u>	< <u></u>	<0.5	<0.5	<0.5	< <u></u>	<10	~20
734 Princes Highway		2/08/2020	Cill	- - 0 E	-	<0.2		<0.4	-	<20		-	-05	-	-	-	-0 E	-0 E	- - 0 5	-	<10	-20
734 Princes Highway	СВН02-0.5	3/08/2020	Natural Soil	<0.5	<5	<0.2		<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH02-2.0	3/08/2020	Natural Soil	13	<5	<0.2		0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		2/08/2020		1.5 <0.5	<ul> <li>&lt;_</li> </ul>	<0.2		0.0		<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		2/08/2020	FIII Natural Sail	<0.5	<0	<0.2		<0.4		<20	<1	<0	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		3/08/2020		<0.5	<0	<0.2	<1	< 0.4	< 5 < 1	<20	<1	<0	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		3/08/2020	FIII Natural Sail	<0.5	<0	<0.2	<1	<0.4	<0	<20	<1	<0	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		3/08/2020		<0.5	<0	<0.2	<1	<0.4	< 5 < F	<20	<1	<0	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-0.05-0.1	3/08/2020	FIII	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	CBH05-1.0	3/08/2020	Natural Soli	<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		3/08/2020		<0.5	< 5	<0.2	<1	<0.4	<0	<20	<1	<0	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Fighway		2/08/2020	FIII Duilding Matarial	<0.5	< 2	<0.Z	<1	<0.4	<2	<20	<1	<2	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		3/08/2020	Natural Soil	- <0 E	-	-0.2	-		-	- 20	-	-	- <0 E	-	-	-	- <0 E	- <0 E	- <0 E	-	<10	-20
734 Princes Highway		2/08/2020		<0.5	< <u>&gt;</u>	<0.2	<1	<0.4	< <u>&gt;</u>	<20	<1	<0	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway		2/08/2020	FIII Natural Sail	<0.5	< <u>-</u>	<0.2	<1	<0.4	<	<20	<1	< <u>-</u>	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
731 Drinces Highway	CBH08-0.05-0.1	3/00/2020	Fill	<0.5 <0 E	 ∠⊑	<0.2	>1 1	<0.4	~5	<20	<u>&gt;⊥</u> ∠1	<ul><li>&lt;_□</li></ul>	<0.5 <0 E	-	\⊥ ∠1	>⊥ ∠1	<0.5 <0 E	<0.5 <0 E	<0.5 <0 E	\⊥ ∠1	<10	~20
734 Princes Highway	CBH08-1.0	3/08/2020	Natural Soil	0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	-	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	00100	3/08/2020	Natural Soil	<0.7	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5		<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
734 Princes Highway	0C200	3/08/2020	Natural Soil		-		~1	<0.4	-	~20	-	-	-	<5	-	-	-	-		-	-10	-20
754 THICES Highway	46200	5/00/2020												<5								
Statistical Summary																						
Number of Results				18	18	18	18	18	18	18	18	18	18	1	18	18	18	18	18	18	18	18
Number of Detects				2	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration				<0.5	<5	<0.2	<1	<0.4	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Minimum Detect				0.7	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration				13	<5	<0.2	<1	0.6	<5	<20	<1	<5	<0.5	<5	<1	<1	<0.5	<0.5	<0.5	<1	<10	<20
Maximum Detect				1.3	ND	ND	ND	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
% of Results at or above th	e Detect Limit			11	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results helow the Det	ect Limit			89	100	100	100	94	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% of Detects at or above G	uidelines			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guideli	nes or Non-Detect			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100



						ВТ	EX					ТРН	-				CRC C	are TPH Fra	ctions			PAH
														of total)					f total)	TEX	Naphthalene	
				Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	c6 - c9	C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum o	F1: C6-C10 less B	F2: >C10-C16 less	Naphthalene
				μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
EQL				1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ANZECC 2000 Fresh Water ( ADWG 2011 Health	95%)			950	800	300		350	600													16
ADWG 2011 Aesthetic				-	25	3			20													
NEPM 2013 GW HSL Comm	ercial/Industrial D, f	for Vapour Intrusio	on, Sand																			
2-4m				5000	NL	NL			NL											6000	NL	NL
NEPM 2013 GW HSL Reside	ntial A&B, for Vapou	ur Intrusion, Sand		800	NI	NII			NI											1000	1000	NU
2-4m				800	INL	INL			INL											1000	1000	NL
Site ID	Sample ID	Well	Sampled Date																			
734 Princes Highway	MW01	MW01	24/11/2011	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<50	-	<20	<50	-
734 Princes Highway	MW01	MW01	20/02/2013	<1	<2	<2	-	-	<2	-	-		-	-	-	-	820	<100	-	<20	<100	<5
734 Princes Highway	MW01	MW01	24/02/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway 734 Princes Highway	MW01	MW01	10/02/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW01	MW01	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW01	MW01	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	29/08/2019	1500	19	2300	-	-	500	-	-	-	-	-	-	-	<100	<100	-	4300	<50	210
734 Princes Highway	MW01	MW01	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	24/09/2020	270	<5	130	<10	<5	<15	450	220	<100	<100	220	490	250	<100	<100	250	90	250	<50
734 Princes Highway	MW02	MW02	24/11/2011	3980	19,400	1340	-	-	3720	-	-	-	-	-	-	-	150	<50	-	49,400	3800	-
734 Princes Highway	MW02	MW02	20/02/2013	3330	7130	760	-	-	1530	-	-	-	-	-	-	-	130	<100	-	12,000	195	<5
734 Princes Highway	MW02		24/02/2014	26 621	8 150	3/3	-	-	42	-	-	-	-	-	-	-	<100	<100	-	780	370	<5
734 Princes Highway	MW02	MW02	10/02/2015	76	<2	68	_	-	20			-	-			_	<100	<100	_	860	550	14
734 Princes Highway	MW02	MW02	12/10/2015	54	2	87	-	-	112	-	-	-	-	-	-	-	<100	<100	-	800	620	9
734 Princes Highway	MW02	MW02	1/06/2016	85	1	120	-	-	130	-	-	-	-	-	-	-	<100	<100	-	620	600	10
734 Princes Highway	MW02	MW02	19/04/2017	75	<10	230	-	-	85	-	-	-	-	-	-	-	<100	<100	-	810	<50	<10
734 Princes Highway	MW02	MW02	25/09/2017	12	<1	59	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	280	90	<10
734 Princes Highway			30/04/2018	12	<1	27	-	-	6	-	-	-	-	-	-	-	<100	<100	-	410	640	<10
734 Princes Highway	MW02	MW02	21/05/2019	22	4	15	-	-	< <u>5</u> 15	-	-	-	-	-	-	-	100	<100	-	610	1000	<10
734 Princes Highway	MW02	MW02	29/08/2019	2	<1	3	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	290	510	<10
734 Princes Highway	MW02	MW02	13/02/2020	6	8	11	-	-	11	-	-	-	-	-	-	-	<100	<100	-	340	1090	10
734 Princes Highway	MW02	MW02	24/09/2020	7	<1	69	12	1	13	630	1700	300	<100	2000	810	1500	<100	<100	1500	720	1490	10
734 Princes Highway	QC100	MW02	24/09/2020	7	<1	73	15	<1	15	630	720	<100	<100	720	800	700	<100	<100	700	710	690	10
734 Princes Highway	QC200	MW02	24/09/2020	9	1	64	13	1	-	290	1300	<100	<100	-	370	1200	<100	<100	-	280	1200	14
734 Princes Highway	MW03	MW03	24/11/2011	<1 94	<5 61	<2 4	-	-	< <u>2</u> 22	-	-	-	-	-	-	-	140	<50	-	120	260	- 3
734 Princes Highway	MW03	MW03	24/02/2012	54	01	-			22				Well Not Sar	mpled			150	(100		1910	200	<u> </u>
734 Princes Highway	MW03	MW03	27/10/2014	8	<2	20	-	-	<2	-	-	-	-	-	-	-	100	<100	-	840	200	<5
734 Princes Highway	MW03	MW03	10/02/2015		-								Unable to A	ccess								
734 Princes Highway	MW03	MW03	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	730	250	<5
734 Princes Highway	MW03	MW03	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	130	80	<10
734 Princes Highway	MW03	MW03	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20 •	<50	<10
734 Frinces Fighway 734 Princes Highway	MW03	MW03	30/04/2017	<u> &lt;1</u>	<u> </u>	<1	-	-	<u>\</u>	-	-	-	I - Well Dr	- V	-	-	<100	<100	-	Õ	<u>\</u>	<10
734 Princes Highway	MW03	MW03	1/05/2018	<1	<1	<1	-	-	<3	_	-	-	-	-	-	-	<100	<100	-	21	100	<10
734 Princes Highway	MW03	MW03	20/11/2018		•				•				Unable to A	ccess						· · · · · · · · · · · · · · · · · · ·		
734 Princes Highway	MW03	MW03	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	14	440	<10
734 Princes Highway	MW03	MW03	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	500	<100	-	180	650	<10
734 Princes Highway	MW03	MW03	24/09/2020	<1	<1	<1	<2	<1	<3	180	370	300	<100	670	220	430	<100	<100	430	220	430	<10

						B	ΓΕΧ	-			-	TPH					CRC C	are TPH Fra	ctions			РАН
														n of total)					of total)	ВТЕХ	ss Naphthalene	
				Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6 - C9	C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sur	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum	F1: C6-C10 less	F2: >C10-C16 le	Naphthalene
<b>.</b>				μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
EQL				1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ADWG 2011 Health	1070)			950	800	300		350	600													10
ADWG 2011 Aesthetic				-	25	3			20													
NEPM 2013 GW HSL Comme	rcial/Industrial D, for V	apour Intrusion, Sa	and																			
2-4m				5000	NL	NL			NL											6000	NL	NL
NEPM 2013 GW HSL Resider	itial A&B, for Vapour Ir	trusion, Sand		000		NU			NII											1000	1000	NI
2-4M				800	NL	NL			NL											1000	1000	NL
Site ID	Sample ID	Well	Sampled Date																			
734 Princes Highway	MW01	MW01	24/11/2011	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<50	-	<20	<50	-
734 Princes Highway	MW01	MW01	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	820	<100	-	<20	<100	<5
734 Princes Highway	MW01	MW01	24/02/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway			27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW01	MW01	12/10/2015	<1	<2	<2		_	<2	-	-	_	-	-	_	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW01	MW01	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01		21/05/2019	1500	<1 19	2300	-	-	<3 500	-	-	-	-	-	-	-	<100	<100	-	4300	<50	210
734 Princes Highway	MW01	MW01	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	_	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW01	MW01	24/09/2020	270	<5	130	<10	<5	<15	450	220	<100	<100	220	490	250	<100	<100	250	90	250	<50
734 Princes Highway	MW02	MW02	24/11/2011	3980	19,400	1340	-	-	3720	-	-	-	-	-	-	-	150	<50	-	49,400	3800	-
734 Princes Highway	MW02	MW02	20/02/2013	3330	7130	760	-	-	1530	-	-	-	-	-	-	-	130	<100	-	12,000	195	<5
734 Princes Highway	MW02	MW02	24/02/2014	26	8	12	-	-	42	-	-	-	-	-	-	-	<100	<100	-	780	370	<5
734 Princes Highway	MW02	MW02	27/10/2014	621	159	343	-	-	494	-	-	-	-	-	-	-	<100	<100	-	1950	420	30
734 Princes Highway	MW02	MW02	12/10/2015	76 54	~2	87	-	-	20		-	-	-	-	-	-	<100	<100	-	860	620	14 9
734 Princes Highway	MW02	MW02	1/06/2016	85	1	120	-	-	130	-	-	-	_	-	-	-	<100	<100	-	620	600	10
734 Princes Highway	MW02	MW02	19/04/2017	75	<10	230	-	-	85	-	-	-	-	-	-	-	<100	<100	-	810	<50	<10
734 Princes Highway	MW02	MW02	25/09/2017	12	<1	59	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	280	90	<10
734 Princes Highway	MW02	MW02	30/04/2018	12	<1	27	-	-	6	-	-	-	-	-	-	-	<100	<100	-	410	440	<10
734 Princes Highway	MW02	MW02	20/11/2018	<1	<1	4	-	-	<3	-	-	-	-	-	-	-	200	<100	-	410	640	<10
734 Princes Highway	MW/02	MW02	29/08/2019	22	4 <1	3	-	-	<2 12	-	-	-	-	-	-	-	 <100	<100	-	200	510	<10 <10
734 Princes Highwav	MW02	MW02	13/02/2020	6	8	11	-	-	11	-	-	-	-	-	-	-	<100	<100	-	340	1090	10
734 Princes Highway	MW02	MW02	24/09/2020	7	<1	69	12	1	13	630	1700	300	<100	2000	810	1500	<100	<100	1500	720	1490	10
734 Princes Highway	QC100	MW02	24/09/2020	7	<1	73	15	<1	15	630	720	<100	<100	720	800	700	<100	<100	700	710	690	10
734 Princes Highway	QC200	MW02	24/09/2020	9	1	64	13	1	-	290	1300	<100	<100	-	370	1200	<100	<100	-	280	1200	14
734 Princes Highway	MW03	MW03	24/11/2011	<1	<5	<2	-	-	<2	-	-	-	-	-	-	-	140	<50	-	120	260	-
734 Princes Highway	MW03	MW03	20/02/2013	94	61	4	-	-	22	-	-	-	-	-	-	-	150	<100	-	1310	200	3
734 Princes Highway	MW03		24/02/2012	8	<i>c</i> 2	20		_	<2		_				_	_	100	<100	_	840	200	<b>~</b> 5
734 Princes Highway	MW03	MW03	10/02/2015	0	~2	20			12				Unable to A	ccess			100	100		0+0	200	
734 Princes Highway	MW03	MW03	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	730	250	<5
734 Princes Highway	MW03	MW03	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	130	80	<10
734 Princes Highway	MW03	MW03	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW03	MW03	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	8	<50	<10
734 Princes Highway	MW03	MW03	30/04/2018	-1	-1	-1	T		-2				Well Dr	ту Г			<100	-100		24	100	-10
734 Princes Highway	M\N/03		20/11/2018	<1	L <1	_ <1	-	-	<3	-	-	-	Unable to A		-	-	<100	<100	-	21	100	<10
734 Princes Highway	MW03	MW03	29/08/2019	<1	<1	<1	-	-	<3	-	-	-		-	-	-	200	<100	-	14	440	<10
734 Princes Highway	MW03	MW03	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	500	<100	-	180	650	<10
734 Princes Highway	MW03	MW03	24/09/2020	<1	<1	<1	<2	<1	<3	180	370	300	<100	670	220	430	<100	<100	430	220	430	<10
		-		_						-	-				-	-					-	



		BT	TEX .					ТРН					CRC C	are TPH Fra	ctions			РАН
Benzene hg/r	<b>Loluene</b> μg/Γ	Ethylbenzene	Xylene (m & p) الماري	Xylene (o)	Xylene Total القرار	<b>со</b> - 99 µg/L	с10 - С14	<b>C15 - C28</b>	С <b>29-С</b> 36	번 전 고 (Sum of total)	<b>C6-C10</b> πä/Γ	с10-C16	T/۲ ۲/۳	с <b>34-С40</b>	전 C10 - C40 (Sum of total)	五人的 F1: C6-C10 less BTEX	편 F2: >C10-C16 less Naphthalene	⊠ Z Z
1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
950				350														16
1	800	300			600 20													
	23				20													
5000	NL	NL			NL											6000	NL	NL
800	NI	NI			NI											1000	1000	NI
000	NL	112														1000	1000	
				1														
75	46	64	-	-	17	-	-	-	-	-	-	-	270	<100	-	1040	740	-
<1	<2	<2	-	-	<2	-	-	-	I - Well not Sar	- npled	-	-	120	<100	-	70	370	<1
<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	20	<100	<5
 <1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	170	460	<5
<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100 <100	<100	-	110 <20	250 <50	<5 <10
<1	<1	<1	-	-	<3	-	-	_	-	-	-	-	<100	<100	-	<20	<50	<10
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	<20	230	<10
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100	<100	-	<20	60	<10
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1400	<100	-	<20	1400	<10
<1	<1	<1	<2	<1	<3	<20	<50 -	<100	<100	<100	<20	<50	<100 240	<100	<100	<20 60	<50 <100	<10 1
~1	12	~2			~~			· · · · · · · · · · · · · · · · · · ·	Nell not Sar	npled			240	(100		00	(100	-
<1	<2	<2	-	-	3	-	-	-	-	-	-	-	100	<100	-	330	260	<5
<1	<2	<2	-	-	2	-	-	-	-	-	-	-	<100	<100	-	230	250	<5
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
<1	2	1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	110	<50	<10
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	130	130	<10
	<1	~1	-	-	<2	-	-	-	- Well Dr	- V	-	-	500	<100	-	40	<50	<10
									Well Dr	у								
<1	<1	~1			-2				Well Dr	y			400	<100		<20	670	<10
<1	<1	<1	<2	<1	<3	<20	<50	100	<100	100	<20	90	<100	<100	<100	<20	90	<10
11	<2	29	-	-	55	-	-	-	-	-	-	-	170	<100	-	680	620	<5
-1	-2	-2		Γ	-2			, 	Well not Sar	npled			~100	~100		60	~100	~⊑
<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	80	<100	<5
<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	140	<100	<5
<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	50	80	<10
<1 <1	4 <1	<1	-	-	4	-	-	-	-	-	-	-	<100 <100	<100	-	<20 70	<50 190	<10 <10
	1	1			10				Well Dr	у			100	100		70	190	110
									Well Dr	У								
									Well Dr	<u>у</u>								
80	30	5	-	-	154	-	-	-	-	<u>y</u> _	-	-	<100	<100	-	380	<50	20
<1	<1	<1	<2	<1	<3	<20	100	<100	<100	100	<20	80	<100	<100	<100	<20	80	<5
								LNAF	PL Detected	(835 mm)								
								ΙΝΔΓ	vell not Sar	npied (669 mm)								
						LNAPL De	tected (693	<u>8 - 14</u> 20 mr	n) (IP could	not accurat	tely determ	ine thickne	ss)					
								LNAF	L Detected	(440 mm)								
									PL Detected	(500  mm)								
								LNAF	L Detected	(330 mm)								
									Well Destr	yed <u>,</u>								

						DT	·EV					трц							ctions			
						БІ						IPH										РАП
				ene	ene	benzene	(d & m) əu	(o) ət	ie Total	63	C14	.C28	C36	- C36 (Sum of total)	10	C16	C34	C40	C40 (Sum of total)	6-C10 less BTEX	C10-C16 less Naphthalene	ithalene
				Benz	Tolue	Ethyl	Kyler	Kyler	Kyler	C6 - (	C10 -	C15 -	c29-(	+C10	C6-C:	C10-(	С16-(	C34-(	C10 -	F1: C	-2: >	Napł
				μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
QL				1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
DWG 2011 Health				1	800	300		330	600													10
DWG 2011 Aesthetic					25	3			20													
2-4m	I/Industrial D, for Va	apour Intrusion, Sai	nd	5000	NL	NL			NL											6000	NL	NL
EPM 2013 GW HSL Residential	A&B, for Vapour Int	rusion, Sand																				
2-4m				800	NL	NL			NL											1000	1000	NL
ite ID	Sample ID	Well	Sampled Date																			
34 Princes Highway	MW04	MW04	24/11/2011	75	46	64	-	-	17	-	-	-	-	-	-	-	270	<100	-	1040	740	-
34 Princes Highway	MW04 MW04	MW04 MW04	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	- Well not Sai	- mpled	-	-	150	<100	-	70	370	<1
34 Princes Highway	MW04	MW04	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	20	<100	<5
34 Princes Highway	MW04	MW04	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	170	460	<5
34 Princes Highway 34 Princes Highway	MW04 MW04	MW04 MW04	12/10/2015	<1	<2 <1	<2	-	-	<2	-	-	-	-	-	-	-	<100 <100	<100 <100	-	110 <20	<50	<5 <10
34 Princes Highway	MW04	MW04	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
34 Princes Highway	MW04	MW04	26/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	<20	230	<10
34 Princes Highway 34 Princes Highway	MW04 MW04	MW04 MW04	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100 <100	<100 <100	-	<20 <20	60 <50	<10 <10
34 Princes Highway	MW04	MW04	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
34 Princes Highway	MW04	MW04	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
34 Princes Highway	MW04	MW04	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1400	<100	-	<20	1400	<10
34 Princes Highway 34 Princes Highway	MW05	MW04 MW05	24/09/2020	<1	<1 <2	<1	<2	<1 -	<3 <2	<20	- <50	-100	<100	-100	<20 -	<50 -	<100 240	<100 <100	<100 -	<20 60	<50 <100	<10 1
34 Princes Highway	MW05	MW05	24/02/2014			.2						1	Well not Sai	mpled			210	1200		00	.100	-
34 Princes Highway	MW05	MW05	27/10/2014	<1	<2	<2	-	-	3	-	-	-	-	-	-	-	100	<100	-	330	260	<5
34 Princes Highway	MW05 MW05	MW05 MW05	10/02/2015	<1	<2	<2	-	-	2	-	-	-	-	-	-	-	<100 <100	<100 <100	-	230 310	250 260	<5 <5
34 Princes Highway	MW05	MW05	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
34 Princes Highway	MW05	MW05	19/04/2017	<1	2	1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	110	<50	<10
34 Princes Highway	MW05	MW05	26/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100 300	<100	-	130		<10
34 Princes Highway	MW05	MW05	20/11/2018	~1	~1	~1	_	_	<b>\</b> 5	_	_	_	Well Dr			_	500	100	_	40	<50	<10
34 Princes Highway	MW05	MW05	21/05/2019										Well Dr	Ϋ́Υ								
34 Princes Highway	MW05	MW05	29/08/2019	-1	~1	~1			<2 - 2				Well Dr	у Г			400	<100		<20	670	<10
34 Princes Highway	MW05	MW05	23/09/2020	<1	<1	<1	- <2	- <1	<3	- <20	- <50	- 100	<100	- 100	- <20	- 90	400 <100	<100	- <100	<20	90	<10
34 Princes Highway	MW06	MW06	20/02/2013	11	<2	29	-	-	55	-	-	-	-	-	-	-	170	<100	-	680	620	<5
34 Princes Highway	MW06	MW06	24/02/2014	.1	.2	.2			.2			\ \	Well not Sa	mpled				100		60		
34 Princes Highway 34 Princes Highway	MW06	MW06	10/02/2015	<1 <1	<2 <2	<2	-	-	<2 <2	-	-	-	-	-	-	-	<100	<100 <100	-	60 80	<100	<5 <5
34 Princes Highway	MW06	MW06	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	140	<100	<5
34 Princes Highway	MW06	MW06	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	50	80	<10
34 Princes Highway 34 Princes Highway	MW06	MW06	19/04/2017	<1 <1	4 <1	<1	-	-	4 <3	-	-	-	-	-	-	-	<100 <100	<100 <100	-	<20 70	<50 190	<10 <10
34 Princes Highway	MW06	MW06	30/04/2018	1	·-	1			,5				Well Dr	У			100	100		, 0	100	110
34 Princes Highway	MW06	MW06	20/11/2018										Well Dr	У								
34 Princes Highway	MW06	MW06	21/05/2019										Well Dr	Y W								
34 Princes Highway	MW06	MW06	13/02/2020	80	30	5	-	-	154	-	-	-	-	y –	-	-	<100	<100	-	380	<50	20
34 Princes Highway	MW06	MW06	23/09/2020	<1	<1	<1	<2	<1	<3	<20	100	<100	<100	100	<20	80	<100	<100	<100	<20	80	<5
34 Princes Highway	MW07	MW07	20/02/2013									LNAP	PL Detected	(835 mm)								
34 Princes Highway 34 Princes Highway	MW07	MW07	24/02/2014									LNAF	vven not San PL Detected	(669 mm)								
34 Princes Highway	MW07	MW07	10/02/2015							LNAPL De	ected (693	- 1420 mr	m) (IP could	not accurat	ely determ	ine thickne	ss)					
34 Princes Highway	MW07	MW07	12/10/2015									LNAF	PL Detected	(440 mm)								
34 Princes Highway 34 Princes Highway	WW07	MW07	1/06/2016 19/04/2017										<sup>2</sup> L Detected PL Detected	(500 mm) (408 mm)								
34 Princes Highway	MW07	MW07	25/09/2017									LNAF	PL Detected	(330 mm)								
34 Princes Highway	MW07	MW07	29/11/2017										Well Destr	oyed								

				·		D.	rev			1		TDU						aro TDU Era	octions			
						В						170										PAΠ
						nzene	(m & p)	(o)	Total		4	89		:36 (Sum of total)					.0 (Sum of total)	10 less BTEX	)-C16 less Naphthalene	alene
				3enzeno	Coluene	Ethylbe	(ylene (	(ylene (	(ylene .	C6 - C9	C10 - C1	C15 - C2	C29-C36	-C10 - C	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C4	:1: C6-C	:2: >C1(	Vaphth
				μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
EQL				1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ANZECC 2000 Fresh Water (95% ADWG 2011 Health	6)			950	800	300		350	600													16
ADWG 2011 Aesthetic				_	25	3			20													
NEPM 2013 GW HSL Commerci	al/Industrial D, fo	or Vapour Intrusion	, Sand																			
2-4m NFPM 2013 GW HSL Residentia	A&B. for Vapou	r Intrusion, Sand		5000	NL	NL			NL											6000	NL	NL
2-4m				800	NL	NL			NL											1000	1000	NL
	Comula ID																					
734 Princes Highway	MW04	MW04	24/11/2011	75	46	64	-	-	17	-	-	_	-	_	-	-	270	<100	-	1040	740	
734 Princes Highway	MW04	MW04	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	150	<100	-	70	370	<1
734 Princes Highway	MW04	MW04	24/02/2014										Well not Sa	mpled							.100	
734 Princes Highway 734 Princes Highway	MW04	MW04	27/10/2014	<1	<2 <7	<2 <2	-	-	<2 <2	-	-	-	-	-	-	-	<100 <100	<100 <100	-	20 170	<100 460	<5 <5
734 Princes Highway	MW04	MW04	12/10/2015	<1	<2	<2	-	-	<2	-		-	-	-	-	-	<100	<100	-	110	250	<5
734 Princes Highway	MW04	MW04	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW04	MW04	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100 <100	-	<20	<50 230	<10
734 Princes Highway	MW04	MW04	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100	<100	-	<20	60	<10
734 Princes Highway	MW04	MW04	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW04	MW04	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW04	MW04	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1400	<100	-	<20	1400	<10
734 Princes Highway	MW04	MW04	24/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<10
734 Princes Highway	MW05	MW05	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	240	<100	-	60	<100	1
734 Princes Highway 734 Princes Highway	MW05	MW05	24/02/2014	<1	<2	<2	-	-	3	-	-	-	vell not Sa	mpied -	-	-	100	<100	_	330	260	<5
734 Princes Highway	MW05	MW05	10/02/2015	<1	<2	<2	-	-	2	-	-	-	-	-	-	-	<100	<100	-	230	250	<5
734 Princes Highway	MW05	MW05	12/10/2015	<1	<2	<2	-	-	3	-	-	-	-	-	-	-	<100	<100	-	310	260	<5
734 Princes Highway 734 Princes Highway	MW05	MW05	1/06/2016	<1	<1	<1	-	-	<3 <3	-	-	-	-	-	-	-	<100	<100 <100	-	<20	<50 <50	<10 <10
734 Princes Highway	MW05	MW05	26/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	130	130	<10
734 Princes Highway	MW05	MW05	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	300	<100	-	40	<50	<10
734 Princes Highway	MW05	MW05	20/11/2018										Well D	<u>^y</u>								
734 Princes Highway	MW05	MW05	29/08/2019										Well D	y Y								
734 Princes Highway	MW05	MW05	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	400	<100	-	<20	670	<10
734 Princes Highway	MW05	MW05	23/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	100	<100	100	<20	90	<100	<100	<100	<20	90	<10
734 Princes Highway	MW06	MW06	24/02/2013	11	< <u> </u>	29	-	-	55	-	-	-	Vell not Sa	mpled	-	-	170	<100	-	080	020	< 5
734 Princes Highway	MW06	MW06	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	60	<100	<5
734 Princes Highway	MW06	MW06	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	80	<100	<5
734 Princes Highway 734 Princes Highway	MW06	MW06	1/06/2016	<1	<2 <1	<2 <1	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	50	×100 80	<5 <10
734 Princes Highway	MW06	MW06	19/04/2017	<1	4	<1	-	-	4	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW06	MW06	26/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	70	190	<10
734 Princes Highway 734 Princes Highway	MW06	MW06	20/11/2018										Well D	<u>y</u> v								
734 Princes Highway	MW06	MW06	21/05/2019										Well D	γ γ								
734 Princes Highway	MW06	MW06	29/08/2019			_	T	I			1		Well D	ту Г			1 400					
734 Princes Highway	MW06	MW06	13/02/2020	80	30	5	-	-	154	- <20	-	-	-	- 100	-	- 80	<100	<100	-	380	<50 80	20
734 Princes Highway	MW00	MW00	20/02/2013	~1	1	~1	~2		<b>\</b> 5	<b>\2</b> 0	100		PL Detected	(835 mm)	<b>\20</b>	80	<100	100	100	N20	80	
734 Princes Highway	MW07	MW07	24/02/2014										Well not Sa	mpled ,								
734 Princes Highway	MW07	MW07	27/10/2014										PL Detected	(669 mm)		ine +6 :-1						
734 Princes Highway 734 Princes Highway	MW07	MW07	12/10/2015							LNAPL De	tectea (693	- 1420 mr LNAF	n) (IP could PL Detected	(440 mm)	leiy determ	ine thickne	:55)					
734 Princes Highway	MW07	MW07	1/06/2016									LNAF	PL Detected	(500 mm)								
734 Princes Highway	MW07	MW07	19/04/2017									LNAF	PL Detected	(408 mm)								
734 Princes Highway 734 Princes Highway	MW07	MW07	25/09/2017 29/11/2017									LNAF	Vell Destr	(330 mm) oved								
			-,,, -, -,																			



						B	ГЕХ					ТРН					CRC C	are TPH Fra	ctions			РАН
														(i							thalene	
				enzene	oluene	thylbenzene	ylene (m & p)	ylene (o)	ylene Total	e - co	10 - C14	15 - C28	29-C36	C10 - C36 (Sum of tota	6-C10	10-C16	16-C34	34-C40	10 - C40 (Sum of total	1: C6-C10 less BTEX	2: >C10-C16 less Naph	laphthalene
				 μg/L	μg/L	ш µg/L	μg/L	 μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	+ μg/L	μg/L	μg/L	μg/L	 μg/L	μg/L	μg/L	<u>μ</u> g/L	 μg/L
EQL				1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ANZECC 2000 Fresh Water (959 ADWG 2011 Health	%)			950	800	300		350	600													16
ADWG 2011 Aesthetic					25	3			20													
NEPM 2013 GW HSL Commerci 2-4m	al/Industrial D, for	Vapour Intrusion,	, Sand	5000	NI	NI			NI											6000	NI	NI
NEPM 2013 GW HSL Residentia	II A&B, for Vapour I	ntrusion, Sand																		0000		
2-4m				800	NL	NL			NL											1000	1000	NL
Site ID	Sample ID	Well	Sampled Date																			
734 Princes Highway	MW08	MW08	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	1230	<100	-	<20	430	<5
734 Princes Highway 734 Princes Highwav	MW08 MW08	MW08 MW08	24/02/2014	<1	<2	<2	-	-	<2	-	-	Not San -	npied - Insut	rricient Wat	er -	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW08	MW08	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<10
734 Princes Highway	MW08	MW08	12/10/2015						_				Well Dr	y v								
734 Princes Highway	MW08	MW08	19/04/2017	<1	<1	<1	-	-	<3	- 1	-	-	-	y -	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW08	MW08	25/09/2017										Well Dr	у								
734 Princes Highway 734 Princes Highway	MW08 MW08	MW08 MW08	20/11/2018	<1	<1	<1	-	-	<3	I -	_	-	Well Dr	-y -	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW08	MW08	21/05/2019										Well Dr	'y								
734 Princes Highway	MW08	MW08	29/08/2019	-1	-1	-1			-2				Well Dr	'y	1		<100	<100		<20	<f.0< td=""><td></td></f.0<>	
734 Princes Highway	MW08	MW08	24/09/2020	<1	<1	<1 <1	- <2	<1	<3	- <20	- <50	- <100	- <100	<100	- <20	- <50	<100	<100	- <100	<20 <20	<50 <50	<10
734 Princes Highway	MW09	MW09	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW09	MW09	24/02/2014	<1	<2	<2							Well not Sa	mpled			<100	<100	_	<20	<100	<5
734 Princes Highway	MW09	MW09	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW09	MW09	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<10
734 Princes Highway 734 Princes Highway	MW09 MW09	MW09 MW09	1/06/2016	<1 <1	<1 <1	<1 <1	-	-	<3 <3	-	-	-	-	-	-	-	<100	<100 <100	-	<20 <20	<50 <50	<10 <10
734 Princes Highway	MW09	MW09	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW09	MW09	30/04/2018	<1	<1	2	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<10
734 Princes Highway	MW09	MW09	21/05/2019					-		-	_	-	Well Dr	г <u>-</u> Ту		-	<100	<100	_	<b>\20</b>	<50	<10
734 Princes Highway	MW09	MW09	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway 734 Princes Highway	MW09 MW09	MW09 MW09	23/09/2020	<1	<1	<1 <1	- <2	- <1	<3 <3	- <20	- <50	- <100	- <100	- <100	- <20	- <50	<100 <100	<100 <100	- <100	<20 <20	150 <50	51 <10
734 Princes Highway	MW10	MW10	27/10/2014	44	<2	27	-	-	36	-	-	-	-	-	-	-	<100	<100	-	870	340	16
734 Princes Highway	MW10	MW10	10/02/2015	9	<2	4	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	940	280	<5
734 Princes Highway 734 Princes Highway	MW10	MW10 MW10	1/06/2016	<1	<2	<2 <1	-	-	<2 <3	-	-	-	-	-	-	-	200	<100	-	890	580 620	<10 <10
734 Princes Highway	MW10	MW10	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	1200	<50	<10
734 Princes Highway	MW10	MW10	25/09/2017	<1	<1	<1	-	-	<3 3	-	-	-	-	-	-	-	<100	<100	-	650 870	110 300	10
734 Princes Highway	MW10 MW10	MW10 MW10	20/11/2018	28	<1	12	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	1200	490	10
734 Princes Highway	MW10	MW10	21/05/2019	10	2	7	-	-	44	-	-	-	-	-	-	-	200	<100	-	1200	600	<40
734 Princes Highway 734 Princes Highway	MW10 MW10	MW10 MW10	29/08/2019	6	<4 2	<4 27	-	-	<12 <3	-	-	-	-	-	-	-	<100 <100	<100 <100	-	580 520	450 370	<10 <5
734 Princes Highway	MW10	MW10	24/09/2020	<1	<1	<1	<2	<1	<3	1100	680	400	<100	1080	1500	710	100	<100	810	1500	710	<10
734 Princes Highway	MW11	MW11	27/10/2014	143	8	<2	-	-	11	-	-	-	-	-	-	-	1060	<100	-	2100	2370	<5
734 Princes Highway 734 Princes Highway	MW11	MW11 MW11	10/02/2015	142	7	<2	-	-	12	-	-	-	-	-	-	-	1100	<100	-	1600	3150	<5 <10
734 Princes Highway	MW11	MW11	1/06/2016	470	15	<10	-	-	<30	-	-	-	-	-	-	-	800	<100	-	1700	2600	<100
734 Princes Highway	MW11	MW11	19/04/2017	_									APL Detected	d (85mm)								
734 Princes Highway	MW11	MW11	30/04/2018									LNA	APL Detected	d (20mm)								
734 Princes Highway	MW11	MW11	20/11/2018	2200	8200	3300	-	-	19,000	-	-	-	-	-	-	-	1700	<100	-	19,000	2700	490
734 Princes Highway	MW11 MW11	MW11	21/05/2019	880	180 4000	2500	-	-	15,000	-	-	-	-	-	-	-	800 600	<100	-	25,000	3500	<500
734 Princes Highway	MW11	MW11	13/02/2020	220	<50	940	-	-	4500	<u> </u>		-	-	-	-	-	19,000	300		3200	18,000	269
734 Princes Highway	MW11	MW11	24/09/2020	650	22	1400	4100	42	4200	9200	15,000	5400	<100	20,400	12,000	9100	3500	<100	12,600	5800	8800	300

						B1	ГЕХ					ТРН					CRC C	Care TPH Fra	ctions			РАН
																					alene	
				Benzene Banzene	eunene μg/L	Hbylbenzene T <sup>a</sup>	ل Xylene (m & p)	لللله (o) Xylene (o)	ଆ Xylene Total	<b>62 - С9</b> µg/L	رπ 7/8π	<b>C15 - C28</b> <sup>1/8μ</sup>	μg/L	번 +C10 - C36 (Sum of total)	<b>Се-С10</b> дууди	<b>010-C19</b> μg/L	ر]/8π 7/۵π	لعرب (234-C40	전 C10 - C40 (Sum of total)	ක් 	虹 が ト2: >C10-C16 less Naphth	hthalene الم
EQL	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ANZECC 2000 Fresh Water (95% ADWG 2011 Health	6)			950	800	300		350	600													16
ADWG 2011 Aesthetic					25	3			20													
NEPM 2013 GW HSL Commerci	al/Industrial D, fo	or Vapour Intrusion	n, Sand	5000	NII	NII.			NII											6000	NU	NI
2-4m NEPM 2013 GW HSL Residentia	I A&B. for Vapou	r Intrusion. Sand		5000	NL	NL			NL											6000	NL	NL
2-4m				800	NL	NL			NL											1000	1000	NL
Cite ID	Comula ID		Compled Date																			
734 Princes Highway	MW08	MW08	20/02/2013	<1	<2	<2	-	-	<2	-	_	-	-	-	-	_	1230	<100	-	<20	430	<5
734 Princes Highway	MW08	MW08	24/02/2014		· ·-	· ·-	ı	I				Not San	npled - Insuffi	icient Wat	er							<u> </u>
734 Princes Highway	MW08	MW08	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway 734 Princes Highway	MW08	MW08	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	Well Dry	-	-	-	<100	<100	-	<20	<100	<10
734 Princes Highway	MW08	MW08	1/06/2016										Well Dry									
734 Princes Highway	MW08	MW08	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW08	MW08	25/09/2017			_			_			_	Well Dry									
734 Princes Highway 734 Princes Highway	MW08	MW08	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	vveii Dry	-	-	_	<100	<100	-	<20	<50	<10
734 Princes Highway	MW08	MW08	21/05/2019	~1	1	<u>``</u>							Well Dry				(100	(100		20	130	
734 Princes Highway	MW08	MW08	29/08/2019		-		_						Well Dry		_		-	-				
734 Princes Highway	MW08	MW08	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<5
734 Princes Highway	MW08	MW08	24/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<10
734 Princes Highway	MW09	MW09	20/02/2013	<1	<2	<2	-	-	<2	-	-	-	- Well not Sam	- nled	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW09	MW09	27/10/2014	<1	<2	<2	-	Γ-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW09	MW09	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
734 Princes Highway	MW09	MW09	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<10
734 Princes Highway	MW09	MW09	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW09	MW09	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW09	MW09	30/04/2018	<1	<1	2	-	-	<3	-	-	-	-	-	-	-	-	-	-	-	-	<10
734 Princes Highway	MW09	MW09	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW09	MW09	21/05/2019	<1	~1	~1			/2	_	_	_	Well Dry				<100	<100	_	<20	<50	<10
734 Princes Highway	MW09	MW09	13/02/2020	<1	<1 <1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	< <u>50</u> 150	51
734 Princes Highway	MW09	MW09	23/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<10
734 Princes Highway	MW10	MW10	27/10/2014	44	<2	27	-	-	36	-	-	-	-	-	-	-	<100	<100	-	870	340	16
734 Princes Highway	MW10	MW10	10/02/2015	9	<2	4	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	940	280	<5
734 Princes Highway 734 Princes Highway	MW10	MW10	1/06/2016	<1	< <u>2</u> <1	<2	-	-	<2	-	-	-	-	-	-	-	200	<100	-	890	580 620	<10
734 Princes Highway	MW10	MW10	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	1200	<50	<10
734 Princes Highway	MW10	MW10	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	650	110	10
734 Princes Highway	MW10	MW10	30/04/2018	<1	<1	<1	-	-	3	-	-	-	-	-	-	-	<100	<100	-	870	300	<10
734 Princes Highway 734 Princes Highway	MW10	MW10	20/11/2018	10	~1	12	-	-	<3 44	-	-	-	-	-	-	-	200	<100	-	1200	490 600	<40
734 Princes Highway	MW10	MW10	29/08/2019	6	<4	<4	-	-	<12	-	-	-	-	-	-	-	<100	<100	-	580	450	<10
734 Princes Highway	MW10	MW10	13/02/2020	2	2	27	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	520	370	<5
734 Princes Highway	MW10	MW10	24/09/2020	<1	<1	<1	<2	<1	<3	1100	680	400	<100	1080	1500	710	100	<100	810	1500	710	<10
734 Princes Highway	MW11	MW11	27/10/2014	143	8	<2	-	-	11	-	-	-	-	-	-	-	1060	<100	-	2100	2370	<5 ~=
734 Princes Highway	MW11	MW11	12/10/2015	163	7	<2	-	-	12	-	-	-		-	-	-	1100	<100	-	1630	3150	<5 <10
734 Princes Highway	MW11	MW11	1/06/2016	470	15	<10	-	-	<30	-	-	-				-	800	<100	-	1700	2600	<100
734 Princes Highway	MW11	MW11	19/04/2017									LNA	PL Detected	(85mm)								
734 Princes Highway	MW11	MW11	25/09/2017									LNA	PL Detected (	430mm)								
734 Princes Highway	WW11 MW/11	MW11	30/04/2018	2200	8200	3300	_	_	19 000	-	_			(20mm) -			1700	<100	_	19 000	2700	490
734 Princes Highway	MW11	MW11	21/05/2019	880	180	2500	-	-	15,000	-	-	-	-	-	-	-	800	<100	-	25,000	3500	<500
734 Princes Highway	MW11	MW11	29/08/2019	1600	4000	3100	_	-	15,000	-	-	-	-	-		-	600	<100	-	28,000	2400	<500
734 Princes Highway	MW11	MW11	13/02/2020	220	<50	940	-	-	4500	-	-	-	-	-	-	-	19,000	300	-	3200	18,000	269
734 Princes Highway	MW11	MW11	24/09/2020	650	22	1400	4100	42	4200	9200	15,000	5400	<100	20,400	12,000	9100	3500	<100	12,600	5800	8800	300



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				<b></b>		BT	EX					ТРН					CRC C	are TPH Fra	ctions			РАН
		_																				
				Benzene	Toluene	Ethylbenzene	Kylene (m & p)	Kylene (o)	Kylene Total	ce - c9	C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum of total)	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum of total)	F1: C6-C10 less BTEX	F2: >C10-C16 less Naphthalene	Vaphthalene
				μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
O Frach Water				1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
Health	(95%)			950 1	800	300		350	600													10
Aesthetic					25	3			20													
GW HSL Comm	ercial/Industrial D,	for Vapour Intrusion	n, Sand	5000	NI	NI			NI											6000	NI	NI
GW HSL Reside	ential A&B, for Vapo	ur Intrusion, Sand			NU	NIL			NU											1000	1000	
				800	NL	NL			NL											1000	1000	NL
	Sample ID	Well	Sampled Date																			
Highway Highway	MW12	MW12	27/10/2014	6470 9120	21,600	2000	-	-	15,200	-	-	-	-	-	-	-	<100	<100	-	33,200	1990 2030	238
Highway	MW12	MW12	12/10/2015	2590	412	459	-	-	2830	-	-	-	-	-	-	-	110	<100	-	7010	2010	<100
Highway	MW12	MW12	1/06/2016	2700	<100	<100	-	-	1300	-	-	-	-	-	-	-	100	<100	-	4100	650	<50
Highway	MW12	MW12	19/04/2017	4100	170	240	-	-	1900	-	-	-	-	-	-	-	<100	<100	-	4700	<50	60
Highway Highway	MW12	MW12	25/09/2017	340	210 15	35	-	-	430	-	-	-	-	-	-	-	400 <100	<100 <100	-	2100	580 780	16 <20
Highway	MW12	MW12	20/11/2018	680	49	74	-	-	550	-	-	-	-	-	-	-	400	<100	-	340	1500	80
Highway	MW12	MW12	21/05/2019	200	18	43	-	-	330	-	-	-	-	-	-	-	300	<100	-	800	1700	20
Highway	MW12	MW12	29/08/2019	2	7	<1	-	-	63	-	-	-	-	-	-	-	100	<100	-	1200	940	<500
Highway Highway	MW12	MW12	24/09/2020	840 4	<u>150</u>	340	- 110	- 27	2300	- 2000	- 1600	- 800	-<100	- 2400	- 2100	- 1400	700	<100 <100	- 2100	4300 2000	1380	8 20
Highway	MW12	MW12 MW13	27/10/2014	86	427	122	-	-	165	-	-	-	-	-	-	-	<100	<100	-	1150	110	52
Highway	MW13	MW13	10/02/2015	230	1240	408	-	-	213	-	-	-	-	-	-	-	<100	<100	-	4140	210	56
Highway	MW13	MW13	12/10/2015	484	73	1160	-	-	36	-	-	-	-	-	-	-	110	<100	-	3010	380	<20
Highway Highway	MW13 MW13	MW13	1/06/2016	440 5	2500	1200	-	-	490 <3	-	-	-	-	-	-	-	<100	<100	-	3000 <20	600 <50	<10
Highway	MW13	MW13	25/09/2017	450	670	740	-	-	300	-	-	-	-	-	-	-	<100	<100	-	2900	320	110
Highway	MW13	MW13	30/04/2018	220	600	370	-	-	51	-	-	-	-	-	-	-	<100	<100	-	2400	430	20
Highway	MW13	MW13	20/11/2018	66	37	81	-	-	69 100	-	-	-	-	-	-	-	<100	<100	-	410	160	20
Highway Highway	MW13	MW13	29/08/2019	30 26	220	97	-	-	75	-	-	-	-	-	-	-	<100 400	<100	-	580	860	10 <10
Highway	MW13	MW13	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	100	120	<5
Highway	MW13	MW13	24/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<10
Highway	MW14	MW14	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<5
Highway Highway	MW14	MW14	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	320	<100 150	-	<20	<100	<5 <10
Highway	MW14	MW14	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
Highway	MW14	MW14	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
Highway Highway	MW14	MW14	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
Highway	MW14	MW14	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
Highway	MW14	MW14	21/05/2019		•								Well Dr	y								
Highway	MW14	MW14	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
Highway Highway	MW14	MW14	24/09/2020	< <u>1</u> <1	<1	<1	- <2	- <1	<3 <3	- <20	- <50	- 400	- 300	- 700	- <20	- 50	<100 600	<100 <100	- 650	<20 <20	<50 50	<u>204</u> <10
Highway	MW15	MW15	27/10/2014	1820	51,800	2610	-	-	12,800	-	-	-	-	-	-	-	380	<100	-	55,000	4450	<243
Highway	MW15	MW15	10/02/2015	2410	68,000	4880	-	-	18,200	-	-	-	-	-	-	-	430	<100	-	90,500	2080	208
Highway	MW15	MW15	12/10/2015	3440	45,600	3170	-	-	12,200	-	-	-	-	-	-	-	670	<100	-	52,600	590	<1000
Highway Highway	MW15	MW15	19/04/2017	1800	21.000	3100	-	-	11.000	-	-	-	-	-	-	-	<100	<100	-	29,000	<50	<500
Highway	MW15	MW15	25/09/2017	2300	550	2800	-	-	8500	-	-	-	-	-	-	-	200	<100	-	19,000	1000	440
Highway	MW15	MW15	30/04/2018	2600	170	4400	-	-	9100	-	-	-	-	-	-	-	<100	<100	-	23,000	2100	<50
Highway Highway	MW15	MW15	20/11/2018	1600 2000	2400 <40	3500	-	-	6500 1200	-	-	-	-	-	-	-	200 <100	<100 <100	-	13,000	1800 3600	430
Highway	MW15	MW15	29/08/2019	1400	19	1900	-	-	420	-	-	-	-	-	-	-	<100	<100	-	3600	1600	590
Highway	MW15	MW15	13/02/2020	670	240	1800	-	-	1700	-	-	-	-	-	-	-	700	<100	-	12,000	1010	<5
Highway	MW15	MW15	24/09/2020	1000	<10	860	120	<10	120	5200	6300	<100	<100	6300	5400	2700	<100	<100	2700	3400	2540	160
nigriway Highwav	MW16	MW16	12/10/2015	<1 <1	<2	<2 <2	-	-	<2 <2	-	-	-	-	-	-	-	<100	<100 <100	-	450 770	220 150	<5 <10
Highway	MW16	MW16	1/06/2016	<1	<1	<1	-	-	<3			-		-	-		<100	<100		390	250	<10
Highway	MW16	MW16	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	340	<50	<10
Highway Highway	MW16	MW16	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	320	<50	<10
Highway	MW16	MW16	20/11/2018	<1	<1	<1	-	-	6	-	-	-	-	-	-	-	<100	<100	-	670	300	<10
Highway	MW16	MW16	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100	<100	-	580	340	<10
Highway Highway	MW16	MW16	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	380	230	<10
Highway	MW16	MW16	24/09/2020	<1 <1	<1 <1	<1	- <2	- <1	< <u>3</u>	- 360	- 240	- 800	- <100	- 1040	- 450	- 410	400	<100	- 810	540 450	230 410	<5 <10
5 ~1		1	, ,			-	-		-													

						BTI	EX					ТРН					CRC Ca	are TPH Fra	ctions			РАН
				Benzene	oluene	thylbenzene	(ylene (m & p)	(ylene (o)	¢ylene Total	62 - <del>3</del> 3	c10 - C14	c15 - C28	29-C36	-C10 - C36 (Sum of total)	c6-C10	c10-C16	c16-C34	:34-C40	c10 - C40 (Sum of total)	:1: C6-C10 less BTEX	:2: >C10-C16 less Naphthalene	Vaphthalene
				μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	<del>τ</del> μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
EQL	N			1	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ADWG 2011 Health	)			950 1	800	300		350	600													10
ADWG 2011 Aesthetic					25	3			20													
2-4m NEPM 2013 GW HSL Commercia NEPM 2013 GW HSL Residential	Al/Industrial D, for Va	rusion, Sand	10	5000	NL	NL			NL											6000	NL	NL
2-4m				800	NL	NL			NL											1000	1000	NL
Site ID	Sample ID	Well	Sampled Date	6470	21 600	2000			15 200								<100	<100		22 200	1000	220
734 Princes Highway	MW12	MW12 MW12	10/02/2015	9120	11,800	2310	-	-	10,900	-	-	-	-	-	-	-	<100	<100	-	35,100	2030	181
734 Princes Highway	MW12	MW12	12/10/2015	2590	412	459	-	-	2830	-	-	-	-	-	-	-	110	<100	-	7010	2010	<100
734 Princes Highway 734 Princes Highway	MW12 MW12	MW12 MW12	1/06/2016 19/04/2017	4100	<100 170	240	-	-	1300	-	-	-	-	-	-	-	<100	<100 <100	-	4100	650 <50	<50 60
734 Princes Highway	MW12	MW12	25/09/2017	340	210	35	-	-	430	-	-	-	-	-	-	-	400	<100	-	2100	580	16
734 Princes Highway	MW12	MW12	30/04/2018	380	15	31	-	-	260	-	-	-	-	-	-	-	<100	<100	-	1300	780	<20
734 Princes Highway 734 Princes Highway	MW12	MW12	21/05/2019	200	<u>49</u> 18	43	-	-	330	-	-	-	-	-	-	-	300	<100	-	340 800	1500	20
734 Princes Highway	MW12	MW12	29/08/2019	2	7	<1	-	-	63	-	-	-	-	-	-	-	100	<100	-	1200	940	<500
734 Princes Highway	MW12	MW12	13/02/2020	840	150	340	-	-	2300	-	-	-	-	-	-	-	100	<100	-	4300	1600	8
734 Princes Highway	MW12 MW13	MW12 MW13	24/09/2020	4 86	<2 427	2	-	- 27	140 165	2000	- 1600	- 008	<100	- 2400	- 2100	- 1400	700 <100	<100	- 2100	2000	1380	20 52
734 Princes Highway	MW13	MW13	10/02/2015	230	1240	408	-	-	213	-	-	-	-	-	-	-	<100	<100	-	4140	210	56
734 Princes Highway	MW13	MW13	12/10/2015	484	73	1160	-	-	36	-	-	-	-	-	-	-	110	<100	-	3010	380	<20
734 Princes Highway 734 Princes Highway	MW13 MW13	MW13 MW13	1/06/2016	440 5	2500 1	1200	-	-	<u>490</u>	-	-	-	-	-	-	-	<100 <100	<100 <100	-	3000 <20	600 <50	<10
734 Princes Highway	MW13	MW13	25/09/2017	450	670	740	-	-	300	-	-	-	-	-	-	-	<100	<100	-	2900	320	110
734 Princes Highway	MW13	MW13	30/04/2018	220	600	370	-	-	51	-	-	-	-	-	-	-	<100	<100	-	2400	430	20
734 Princes Highway	MW13	MW13	20/11/2018	66	37	81 170	-	-	69 100	-	-	-	-	-	-	-	<100	<100	-	410	160 510	20
734 Princes Highway	MW13	MW13	29/08/2019	26	220	97	-	-	75	-	-	-	-	-	-	-	400	<100	-	580	860	<10
734 Princes Highway	MW13	MW13	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	100	120	<5
734 Princes Highway	MW13	MW13	24/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<10
734 Princes Highway 734 Princes Highway	MW14	MW14	10/02/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20 <20	<100	<5 <5
734 Princes Highway	MW14	MW14	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	320	150	-	<20	<100	<10
734 Princes Highway	MW14	MW14	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway 734 Princes Highway	MW14	MW14	25/09/2017	<1	<1 <1	<1	-	-	<3 <3	-	-	-	-	-	-	-	<100	<100	-	<20 <20	<50 <50	<10 <10
734 Princes Highway	MW14	MW14	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW14	MW14	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway 734 Princes Highwav	MW14	MW14	21/05/2019 29/08/2019	<1	<1	<1	-	-	<3	-	-	-	vveii Dry	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	MW14	MW14	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	204
734 Princes Highway	MW14	MW14	24/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	400	300	700	<20	50	600	<100	650	<20	50	<10
734 Princes Highway 734 Princes Highway	MW15 MW15	MW15	27/10/2014 10/02/2015	2410	51,800 68,000	2610 4880	-	-	12,800	-	-	-	-	-	-	-	380 430	<100 <100	-	55,000 90,500	4450 2080	<243 208
734 Princes Highway	MW15	MW15	12/10/2015	3440	45,600	3170	-	-	12,200	-	-	-	-	-	-	-	670	<100	-	52,600	590	<1000
734 Princes Highway	MW15	MW15	1/06/2016	2100	37,000	3100	-	-	9200	-	-	-	-	-	-	-	200	<100	-	27,000	1400	<200
734 Princes Highway 734 Princes Highway	MW15 MW15	MW15 MW15	19/04/2017	1800 2300	21,000	3100 2800	-	-	11,000 8500	-	-	-	-	-	-	-	<100 200	<100 <100	-	29,000	<50 1000	<500 440
734 Princes Highway	MW15	MW15	30/04/2018	2600	170	4400	-	_	9100	-	-	-		-	-	-	<100	<100	-	23,000	2100	<50
734 Princes Highway	MW15	MW15	20/11/2018	1600	2400	3500	-	-	6500	-	-	-	-	-	-	-	200	<100	-	13,000	1800	430
734 Princes Highway 734 Princes Highway	MW15 MW15	MW15	21/05/2019 29/08/2019	2000	<40 19	3700	-	-	1200 420	-	-	-	-	-	-	-	<100 <100	<100 <100	-	11,000 3600	3600	200
734 Princes Highway	MW15	MW15	13/02/2020	670	240	1800	-	-	1700	-	-	-	-	-	-	-	700	<100	-	12,000	1010	<5
734 Princes Highway	MW15	MW15	24/09/2020	1000	<10	860	120	<10	120	5200	6300	<100	<100	6300	5400	2700	<100	<100	2700	3400	2540	160
734 Princes Highway	MW16	MW16	11/12/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	450 770	220	<5 <10
734 Princes Highway	MW16	MW16	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	390	250	<10
734 Princes Highway	MW16	MW16	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	340	<50	<10
734 Princes Highway	MW16	MW16	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	320	<50	<10
734 Princes Highway	MW16	MW16	20/11/2018	<1	<1	<1	-	-	6	-	-	-	-	-	-	-	<100	<100	-	670	300	<10
734 Princes Highway	MW16	MW16	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100	<100	-	580	340	<10
734 Princes Highway	MW16	MW16	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	380	230	<10
734 Princes Highway	MW16	MW16	24/09/2020	<1	<1	<1	- <2	- <1	<3	- 360	- 240	- 800	<100	- 1040	- 450	- 410	400	<100	- 810	450	410	<10
- ·		-	-			-									-		-			-		



						B	ГЕХ					ТРН					CRC Ca	are TPH Fra	ctions			РАН
						zene	n & p)	(0	otal		-	~		36 (Sum of total)					) (Sum of total)	L0 less BTEX	-C16 less Naphthalene	lene
				Benzene	Toluene	Ethylben	Xylene (r	Xylene (c	Xylene T	C6 - C9	C10 - C1 <sup>,</sup>	C15 - C28	C29-C36	+C10 - C3	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C4(	F1: C6-C1	F2: >C10	Naphtha
				μg/L	μg/L 1	μg/L 1	μg/L	μg/L 1	μg/L 2	μg/L 20	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L 100	μg/L	μg/L 20	μg/L	μg/L
CC 2000 Fresh Water (95%	6)			950	1	<u> </u>	2	350	3	20	50	100	100	100	20	50	100	100	100	20	50	16
G 2011 Health				1	800	300			600													
<mark>G 2011 Aesthetic</mark> I 2013 GW HSL Commercia	al/Industrial D. for	Vapour Intrusion.	Sand		25	3			20													
m				5000	NL	NL			NL											6000	NL	NL
I 2013 GW HSL Residentia	I A&B, for Vapour I	ntrusion, Sand		800	NI	NI			NI											1000	1000	NI
				800	INL	INL			INL											1000	1000	INL
<b>D</b>	Sample ID	Well	Sampled Date				1										100	100		24.2	2.52	
rinces Highway rinces Highway	MW17 MW17	MW17 MW17	11/12/2014	<1 <1	<2 <2	<2 <2	-	-	<2 <2	-	-	-	-	-	-	-	<100 <100	<100 <100	-	310 670	360 310	<5 <10
rinces Highway	MW17	MW17	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	290	240	<10
rinces Highway	MW17	MW17	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	340	<50	<10
rinces Highway rinces Highway	MW17	MW17	30/04/2018	<1 <1	<1	2	-	-	<3 <3	-	-	-	-	-	-	-	<100	<100	-	130	<50	<10
rinces Highway	MW17	MW17	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	450	600	<10
rinces Highway	MW17	MW17	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	560	580	<40
rinces Highway rinces Highway	MW17 MW17	MW17 MW17	13/02/2020	<4 <1	<1 <1	<1	-	-	<12	-	-	-	-	-	-	-	<100	<100 <100	-	140	410 580	<10 <5
rinces Highway	MW17	MW17	23/09/2020	<1	<1	<1	<2	<1	<3	340	670	200	<100	870	440	600	<100	<100	600	440	600	<10
rinces Highway	MW18	MW18	11/12/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	80	250	<5
rinces Highway	MW18	MW18	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	230	470	<10
rinces Highway rinces Highway	MW18 MW18	MW18 MW18	1/06/2016	<1	<1 <1	<1	-	-	<3 <3	-	-	-	-	-	-	-	<100 <100	<100 <100	-	210	90 <50	<10 <10
rinces Highway	MW18	MW18	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100	<100	-	150	460	<10
rinces Highway	MW18	MW18	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	210	250	<10
rinces Highway	MW18	MW18	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	800	<100	-	180	910	<10
rinces Highway	MW18	MW18	29/08/2019	<1 <4	<1 <4	<1	-	-	<12	-	-	-	-	-	-	-	500	<100	-	<20 170	430 760	<10
rinces Highway	MW18	MW18	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1900	<100	-	160	2100	110
rinces Highway	MW18	MW18	23/09/2020	<1	<1	<1	<2	<1	<3	340	580	500	<100	1080	420	640	<100	<100	640	420	640	<10
rinces Highway	MW19	MW19	11/12/2014									LNA	PL Detecte	d (3 mm)								
rinces Highway	MW19	MW19	19/04/2017										Unable to A	access								
rinces Highway	MW19	MW19	25/09/2017					_				LNAP	L Detected	(360 mm)	_							
rinces Highway	MW19	MW19	1/05/2018	3	2	3	-	-	9	-	-	-	-	-	-	-	12,000	<100	-	2700	18,000	<10
rinces Highway rinces Highway	MW19 MW19	MW19 MW19	20/11//2018	3	3	<1	-	-	8	-	_	-	Well Dr	ту _	-	-	41,000	600	-	1100	42,000	<10
rinces Highway	MW19	MW19	29/08/2019	3	1	<1	-	-	3	-	-	-	-	-	-	-	3600	<100	-	440	4000	<10
rinces Highway	MW19	MW19	13/02/2020	<1	<1	<1	-	-	4	-	-	-	-	-	-	-	3100	<100	-	240	7700	<10
rinces Highway	MW19	MW19	24/09/2020	4	1	<1	2	<1	<3	610	31,000	86,000	2600	119,600	1000	57,000	62,000	900	119,900	990	57,000	<10
rinces Highway rinces Highway	MW20	MW20	20/11/2018	<1	<1	<1	-	-	<3 <3	-	-	-	-	-	-	-	900	<100	-	330 80	1100	<10
rinces Highway	MW20	MW20	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1900	<100	-	150	2000	<10
rinces Highway	MW20	MW20	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1700	<100	-	120	2200	<10
rinces Highway	MW20	MW20	13/02/2020	<1	<1	<1	-	-	<3	- 140	- 1200	- 2900	-	- /100	- 220	-	200	<100	- 4000	60 220	2200	<5 <10
rinces Highway	TPMW101	TPMW101	24/02/2014	~1	1	1	~2	~1	<2	140	1200	2900	Well Dr	Υ Ύ	220	2200	1800	<100	4000	220	2200	<10
rinces Highway	TPMW101	TPMW101	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<10
rinces Highway	TPMW101	TPMW101	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
rinces Highway rinces Highway	RIN1	TPMW101	24/09/2020	<1	<1 <1	<1	- <2	- <1	<3 <3	- <20	- <50	- <100	- <100	- <100	- <20	- <50	<100 <100	<100 <100	- <100	<20 <20	<50 <50	<10 <10
rinces Highway	TRIP BLANK		24/09/2020	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<10
	-		•	-	I		-	•								-	- I					<u> </u>
tical Summary				212	212	212	22	22	212	22	22	22	22	71	าา	22	711	711	21	711	211	200
er of Detects				78	61	72	7	4	71	14	15	12	2	16	14	17	72	4	14	147	136	42
num Concentration				<1	<1	<1	<2	<1	<2	<20	<50	<100	<100	<100	<20	<50	<100	<50	<100	8	<50	<1
num Detect				1	1	1	2	1	2	140	100	100	300	100	220	50	100	150	250	8	50	1
num Concentration				9120 9120	68000 68000	4880 4880	4100	42	19000	9200 9200	31000	86000	2600	119600	12000	57000	62000	900	119900	90500	57000	<1000 590
Results at or above the De	tect Limit			37	29	34	30	17	33	64	68	55	9	76	64	77	34	2	67	70	64	20
Results below the Detect L	_imit			63	71	66	70	83	67	36	32	45	91	24	36	23	66	98	33	30	36	80
Detects at or above Guidel	lines			37	16	31	0	0	25	0	0	0	0	0	0	0	0	0	0	24	20	14 96

				<b></b>		B	ГЕХ					ТРН					CRC Ca	are TPH Fra	actions			РАН
																					۵	
				Benzene hg/r	and Toluene μg/Γ	T/ <sup>βή</sup> Ethylbenzene	r/ <sup>βή</sup> Tylene (m & p)	Xylene (o) لاگر ا	barrow Xylene Total	<b>60 - 63</b> μg/L	 μg/L		<b>μ</b> g/L	여 고 +C10 - C36 (Sum of total)	<b>C6-C10</b> Γ/βή	c10-C16 μg/Γ	μg/L μg/L	<mark>с34-</mark> С40	成 て10 - C40 (Sum of total)	内 「協 」 「日: C6-C10 less BTEX	ୁଆ F2: >C10-C16 less Naphthalene	<sup>βπ</sup> Naphthalene
EQL	(%)			950	1	1	2	1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
ADWG 2011 Health	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			1	800	300		330	600													10
ADWG 2011 Aesthetic					25	3			20													
2-4m	cial/Industrial D, for	Vapour Intrusion, S	Sand	5000	NL	NL			NL											6000	NL	NL
NEPM 2013 GW HSL Resident	ial A&B, for Vapour I	ntrusion, Sand																				
2-4m				800	NL	NL			NL											1000	1000	NL
Site ID	Sample ID	Well	Sampled Date																			
734 Princes Highway	MW17	MW17	11/12/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	310	360	<5
734 Princes Highway	MW17	MW17	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	670	310	<10
734 Princes Highway	MW17	MW17	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	290	240	<10
734 Princes Highway	MW17	MW17	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	210	110	<10
734 Princes Highway	MW17	MW17	30/04/2018	<1	<1	2	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	130	<50	<10
734 Princes Highway	MW17	MW17	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	450	600	<10
734 Princes Highway	MW17	MW17	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	560	580	<40
734 Princes Highway 734 Princes Highway	MW17	MW17	13/02/2019	<4	<1	<4	-	-	<12	-	-	-	-	-	-	-	<100	<100	-	140	410 580	<10
734 Princes Highway	MW17	MW17	23/09/2020	<1	<1	<1	<2	<1	<3	340	670	200	<100	870	440	600	<100	<100	600	440	600	<10
734 Princes Highway	MW18	MW18	11/12/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	80	250	<5
734 Princes Highway	MW18	MW18	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	230	470	<10
734 Princes Highway	MW18	MW18	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	110	90	<10
734 Princes Highway 734 Princes Highway	MW18	MW18	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	150	<50 460	<10
734 Princes Highway	MW18	MW18	30/04/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	210	250	<10
734 Princes Highway	MW18	MW18	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	800	<100	-	180	910	<10
734 Princes Highway	MW18	MW18	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	300	<100	-	<20	430	<40
734 Princes Highway	MW18	MW18	29/08/2019	<4	<4	<4	-	-	<12	-	-	-	-	-	-	-	1900	<100	-	170	760	<10
734 Princes Highway	MW18	MW18	23/09/2020	<1	<1	<1	<2	<1	<3	340	580	500	<100	1080	420	640	<100	<100	640	420	640	<10
734 Princes Highway	MW19	MW19	11/12/2014		1							LNA	APL Detecte	ed (3 mm)								
734 Princes Highway	MW19	MW19	12/10/2015										Unable to A	Access								
734 Princes Highway	MW19	MW19	19/04/2017										Unable to A	Access								
734 Princes Highway	MW19	MW19	1/05/2017	3	2	3		_	9	_	_			(360 mm)	_	_	12 000	<100		2700	18 000	<10
734 Princes Highway	MW19	MW19	20/11//2018	5	2	5							Well Di	ry			12,000	(100		2700	10,000	
734 Princes Highway	MW19	MW19	21/05/2019	3	3	<1	-	-	8	-	-	-	-	-	-	-	41,000	600	-	1100	42,000	<10
734 Princes Highway	MW19	MW19	29/08/2019	3	1	<1	-	-	3	-	-	-	-	-	-	-	3600	<100	-	440	4000	<10
734 Princes Highway	MW19	MW19	13/02/2020	<1	<1	<1	- 2	-	4	-	-	-	-	-	-	-	3100	<100	-	240	7700	<10
734 Princes Highway	MW20	MW20	30/04/2018	4	 <1	<1	-	-	<3	-	-		-	-	- 1000	- 37,000	900	<100	-	330	1100	<10
734 Princes Highway	MW20	MW20	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	900	<100	-	80	1100	<10
734 Princes Highway	MW20	MW20	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1900	<100	-	150	2000	<10
734 Princes Highway	MW20	MW20	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1700	<100	-	120	2200	<10
734 Princes Highway	MW20	MW20	24/09/2020	<1	< <u>1</u>	< <u>1</u>	- <2	- <1	<3	- 140	- 1200	- 2900	- <100	- 4100	- 220	- 2200	200	<100	- 4000	220	2200	<5 <10
734 Princes Highway	TPMW101	TPMW101	24/02/2014	<u>``</u>	-	-	12	<b>\1</b>	10	140	1200	2500	Well Di	ry	220	2200	1000	(100	4000	220	2200	
734 Princes Highway	TPMW101	TPMW101	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-		-	-	<100	<100	-	<20	<100	<10
734 Princes Highway	TPMW101	TPMW101	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	TPMW101	TPMW101	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	TRIP BLANK		24/09/2020	<1	<1	<1	<2	<1	<3	-	-		-	- 100	-	-		- 100	-	-	-	<10
									I													<u>.</u>
Statistical Summary													-	-		-	- · · · ·		-	- ·		<del></del>
Number of Results				213 70	213 61	213 77	23 7	23 1	212 71	22	22 1⊑	22	22 2	21	22	22	211 72	211	21	211	211	209
Minimum Concentration				<1	<1	<1	<2	- <1	<2	<20	<50	<100	<100	<100	<20	<50	<100	<50	<100	8	<50	<1
Minimum Detect				1	1	1	2	1	2	140	100	100	300	100	220	50	100	150	250	8	50	1
Maximum Concentration				9120	68000	4880	4100	42	19000	9200	31000	86000	2600	119600	12000	57000	62000	900	119900	90500	57000	<1000
Maximum Detect	otoct limit			9120	68000	4880	4100	42	19000	9200	31000	86000	2600	119600	12000	57000	62000	900	119900	90500	57000	590
% of Results below the Detect	Limit			63	71	66	70	83	67	36	32	45	91	24	36	23	54 66	<u>∠</u> 98	33	30	36	80
% of Detects at or above Guid	elines			37	16	31	0	0	25	0	0	0	0	0	0	0	0	0	0	24	20	14
% of Results Below Guidelines	or Non-Detect			63	84	69	100	100	75	100	100	100	100	100	100	100	100	100	100	76	80	86

				<b></b>		B	ГЕХ					ТРН					CRC Ca	are TPH Fra	actions			РАН
																					alene	
				Benzene	Toluene	Ethylbenzene	Xylene (m & p)	Xylene (o)	Xylene Total	C6 - C9	C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum of total)	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum of total)	F1: C6-C10 less BTEX	F2: >C10-C16 less Naphth	Naphthalene
FOI				μg/L 1	μg/L 1	μg/L 1	μg/L 2	μg/L 1	μg/L 3	μg/L 20	μg/L 50	μg/L 100	μg/L 100	μg/L 100	μg/L 20	μg/L 50	μg/L 100	μg/L 100	μg/L 100	μg/L 20	μg/L 50	μg/L 0.01
ANZECC 2000 Fresh Water (95%	%)			950	-	-	L	350	,	20	50	100	100	100	20	50	100	100	100	20	30	16
ADWG 2011 Health				1	800	300			600													
NEPM 2013 GW HSL Commerci 2-4m	al/Industrial D, for N	Vapour Intrusion, S	and	5000	NL	NL			NL											6000	NL	NL
NEPM 2013 GW HSL Residentia 2-4m	II A&B, for Vapour II	ntrusion, Sand		800	NL	NL			NL											1000	1000	NL
Site ID	Sample ID	Well	Sampled Date																			
734 Princes Highway	MW17	MW17	11/12/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	310	360	<5
734 Princes Highway	MW17	MW17	12/10/2015	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	670	310	<10
734 Princes Highway	MW17 MW17	MW17 MW17	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100 <100	<100 <100	-	290 340	240 <50	<10 <10
734 Princes Highway	MW17	MW17	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-		-	<100	<100		210	110	<10
734 Princes Highway	MW17	MW17	30/04/2018	<1	<1	2	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	130	<50	<10
734 Princes Highway 734 Princes Highway	MW17 MW17	MW17 MW17	20/11/2018	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	200	<100	-	450 560	600 580	<10
734 Princes Highway	MW17	MW17 MW17	29/08/2019	<4	<1	<4	-	-	<12	-	-	-	-	-	-	-	<100	<100	-	140	410	<10
734 Princes Highway	MW17	MW17	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	180	580	<5
734 Princes Highway	MW17	MW17	23/09/2020	<1	<1	<1	<2	<1	<3	340	670	200	<100	870	440	600	<100	<100	600	440	600	<10
734 Princes Highway 734 Princes Highway	MW18 MW18	MW18 MW18	11/12/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100 <100	<100	-	80 230	250 470	<5 <10
734 Princes Highway	MW18	MW18	1/06/2016	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	110	90	<10
734 Princes Highway	MW18	MW18	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	210	<50	<10
734 Princes Highway	MW18	MW18	25/09/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	100	<100	-	150	460	<10
734 Princes Highway 734 Princes Highway	MW18 MW18	MW18 MW18	30/04/2018	<1	<1	<1	-	-	<3 <3	-	-	-	-	-	-	-	<100 800	<100	-	210 180	250 910	<10 <10
734 Princes Highway	MW18	MW18	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	300	<100	-	<20	430	<40
734 Princes Highway	MW18	MW18	29/08/2019	<4	<4	<4	-	-	<12	-	-	-	-	-	-	-	500	<100	-	170	760	<10
734 Princes Highway	MW18	MW18	13/02/2020	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1900	<100	-	160	2100	110
734 Princes Highway 734 Princes Highway	MW18 MW19	MW19	11/12/2014	<1	<1	<1	<2	<1	<3	340	580	500 LNA	<100 APL Detecte	d (3 mm)	420	640	<100	<100	640	420	640	<10
734 Princes Highway	MW19	MW19	12/10/2015									2107	Unable to A	ccess								
734 Princes Highway	MW19	MW19	19/04/2017										Unable to A	ccess								
734 Princes Highway	MW19	MW19	25/09/2017	2	2	2			0			LNA	PL Detected	(360 mm)	1		12,000	<100	1	2700	10,000	(10
734 Princes Highway 734 Princes Highway	MW19	MW19	20/11//2018	3	2	3	-	-	9	-	-	-	 Well Dr	 -v	-	-	12,000	<100	-	2700	18,000	<10
734 Princes Highway	MW19	MW19	21/05/2019	3	3	<1	-	-	8	-	-	-	-	-	-	-	41,000	600	-	1100	42,000	<10
734 Princes Highway	MW19	MW19	29/08/2019	3	1	<1	-	-	3	-	-	-	-	-	-	-	3600	<100	-	440	4000	<10
734 Princes Highway	MW19	MW19	13/02/2020	<1	<1	<1	- -	-	4	-	-	-	-	-	-	-	3100	<100	-	240	7700	<10
734 Princes Highway	MW20	MW20	30/04/2018	4	 <1	<1	- Z	-	<3		- 51,000		- 2000	-	- 1000	- 57,000	900	<100	-	330	1100	<10
734 Princes Highway	MW20	MW20	20/11/2018	<1	<1	<1	-		<3	-	-	-	-	-		-	900	<100	-	80	1100	<10
734 Princes Highway	MW20	MW20	21/05/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1900	<100	-	150	2000	<10
734 Princes Highway	MW20	MW20	29/08/2019	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	1700	<100	-	120	2200	<10
734 Princes Highway	MW20	MW20	24/09/2020	<1	1	1	<2	<1	<3	- 140	1200	2900	- <100	4100	220	2200	1800	<100	4000	220	2200	<10
734 Princes Highway	TPMW101	TPMW101	24/02/2014						_	-			Well Dr	y						_		
734 Princes Highway	TPMW101	TPMW101	27/10/2014	<1	<2	<2	-	-	<2	-	-	-	-	-	-	-	<100	<100	-	<20	<100	<10
734 Princes Highway	TPMW101	TPMW101	19/04/2017	<1	<1	<1	-	-	<3	-	-	-	-	-	-	-	<100	<100	-	<20	<50	<10
734 Princes Highway	RIN1		24/09/2020	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	<50	<100	<100	<100	<20	<50	<10
734 Princes Highway	TRIP BLANK		24/09/2020	<1	<1	<1	<2	<1	<3	-	-	-	-	-	-	-	-	-	-	-	-	<10
Statictical Summers																		_				
Number of Results				213	213	213	23	23	212	22	22	22	22	21	22	22	211	211	21	211	211	209
Number of Detects				78	61	72	7	4	71	14	15	12	2	16	14	17	72	4	14	147	136	42
Minimum Concentration				<1	<1	<1	<2	<1	<2	<20	<50	<100	<100	<100	<20	<50	<100	<50	<100	8	<50	<1
Minimum Detect				1 0120	1	1	2	1	2	140 9200	100	100 86000	300	100	220	50	100 62000	150 000	250	8	50	1 <1000
Maximum Detect				9120	68000	4880	4100	42	19000	9200	31000	86000	2600	119600	12000	57000	62000	900	119900	90500	57000	590
% of Results at or above the De	etect Limit			37	29	34	30	17	33	64	68	55	9	76	64	77	34	2	67	70	64	20
% of Results below the Detect	Limit			63	71	66	70	83	67	36	32	45	91	24	36	23	66	98	33	30	36	80
% of Results Below Guidelines	nnes or Non-Detect			57 63	84	51 69	100	100	25 75	100	100	100	100	100	100	100	100	100	100	24 76	20	14 86

Table 7-2 Identified exceedances against human health criteria exceedances (table to be viewed in colour)

	TRH F1	TRH F2	Benzene	Ethylbenzene	Xylene (total)
	μg/L	μg/L	µg/L	µg/L	µg/L
EQL	20	50	1	1	3
NEPM (2013) HSL Comm/Ind D, Sand (2-4m)	6,000	NL	5,000	NL	NL
NEPM (2013) HSL Resi A&B, Sand (2-4m)	1,000	1,000	800	NL	NL
ADWG 2011 Health	-	-	1	300	600
ADWG 2011 Aesthetic	-	-	-	3	20
Sample ID					
MW01	-	-	270	130	-
MW02	-	1,490	9	73	-
MW10	1,500	-	-	-	-
MW11	5,800	8,800	650	1,400	4,200
MW12	2,000	1,380	4	-	140
MW15	3,400	2,540	1,000	860	120
MW19*	-	57,000	4	-	-
MW20	-	2,200	-	-	-

TRH F1: C6-C10 less BTEX

TRH F2: >C10-C16 less Naphthalene

\* offsite well



Table 7-3 Identified exceedances against ecological criteria exceedances (table to be viewed in colour)

	Benzene	Naphthalene
	µg/L	µg/L
EQL	1	0.01
ANZECC 2000 Fresh Water (95%)	950	16
Sample ID		
MW11	-	300
MW12	-	20
MW15	1,000	160

# SHEET B.4

# FINAL

Table 7-2 Identified exceedances against human health criteria exceedances (table to be viewed in colour)

	TRH F2	Benzene	Ethylbenzene
	μg/L	µg/L	µg/L
EQL	50	1	1
NEPM (2013) HSL Comm/Ind D, Sand (2-4m)	NL	5,000	NL
NEPM (2013) HSL Resi A&B, Sand (2-4m)	1,000	800	NL
ADWG 2011 Health	-	1	300
ADWG 2011 Aesthetic	-	-	3
14 December 2020 GME			
MW19*	25,000	4	-
QA100 (intra-lab duplicate)	67,000	4	-
QC100 (inter-lab duplicate)	35,000	4	4
1 February 2021 GME			
MW19-HS (Eurofins)	6,400	2	-
MW19-HS (Envirolab)	6,500	3	-
MW19-PP (Eurofins)	1,700	3	-
MW19-PP (Envirolab)	1.900	4	-

TRH F1: C6-C10 less BTEX

TRH F2: >C10-C16 less Naphthalene

\* offsite well

HS: HydraSleeve

PP: Peristaltic Pump

# SHEET B.5

BTEX

Xylene (m & p)

2

800

NL

NL

μg/L μ

### Cardno<sup>®</sup>

SHEET B.6

			BT
	Benzene	Toluene	Ethylbenzene
	μg/L	μg/L	μg/L
EQL	1	1	1
ANZECC 2000 Fresh Water (95%)	950		
ADWG 2011 Health	1	800	300
ADWG 2011 Aesthetic		25	3
NEPM 2013 GW HSL Commercial/Industrial D, for Vapour Intrusion, Sand			
2-4m	5000	NL	NL
NEPM 2013 GW HSL Residential A&B for Vanour Intrusion, Sand			

Site ID	Sample ID	Well	Sampled Date	Sampling Method	Laboratory																			
734 Princes Highway	MW19	MW19	11/12/2014	-	-									LNA	PL Detecte	ed (3 mm)								
734 Princes Highway	MW19	MW19	12/10/2015	-	-										Unable to <i>i</i>	Access								
734 Princes Highway	MW19	MW19	19/04/2017	-	-										Unable to <i>i</i>	Access								
734 Princes Highway	MW19	MW19	25/09/2017	-	-									LNAF	PL Detected	l (360 mm)								
734 Princes Highway	MW19	MW19	1/05/2018	-	-	3	2	3	-	-	9	-	-	-	-	-	-	-	12,000	<100	-	2700	18,000	<10
734 Princes Highway	MW19	MW19	20/11//2018	-	-										Well D	ry								
734 Princes Highway	MW19	MW19	21/05/2019	-	-	3	3	<1	-		8	-	-	-	-	-	-	-	41,000	600	-	1100	42,000	<10
734 Princes Highway	MW19	MW19	29/08/2019	-	-	3	1	<1	-	-	3	-	-	-	-	-	-	-	3600	<100	-	440	4000	<10
734 Princes Highway	MW19	MW19	13/02/2020	-	-	<1	<1	<1	-	-	4	-	-	-	-	-	-	-	3100	<100	-	240	7700	<10
734 Princes Highway	MW19	MW19	24/09/2020	Hydrasleeve	-	4	1	<1	2	<1	<3	610	31,000	86,000	2600	119,600	1000	57,000	62,000	900	119,900	990	57,000	<10
734 Princes Highway	MW19	MW19	14/12/2020	Hydrasleeve	Eurofins	4	1	<1	5	<1	5	230	11,000	38,000	400	49,400	410	25,000	27,000	600	52,600	400	25,000	<10
734 Princes Highway	QA100	MW19	14/12/2020	Hydrasleeve	Eurofins	4	2	<1	6	<1	6	390	31000	100000	1900	132900	730	67000	75000	1400	143400	720	67000	<10
734 Princes Highway	QC100	MW19	14/12/2020	Hydrasleeve	Envirolab	4	1	4	6	<1	-	240	17000	57000	1600	75600	310	35000	39000	870	74870	290	35000	<1
734 Princes Highway	MW19-HS	MW19	1/02/2021	Hydrasleeve	Eurofins	2	<1	<1	4	<1	4	210	3000	9300	<100	12300	330	6400	6600	<100	13000	320	6400	<1
734 Princes Highway	MW19-PP	MW19	1/02/2021	Peristaltic Pump	Eurofins	3	1	<1	8	1	9	450	1300	1400	<100	2700	560	1700	700	<100	2400	550	1700	<1
734 Princes Highway	MW19-HS	MW19	1/02/2021	Hydrasleeve	Envirolab	3	<1	<1	5	<1	5	210	3500	10000	290	13790	290	6500	7200	150	13850	280	6500	<1
734 Princes Highway	MW19-PP	MW19	1/02/2021	Peristaltic Pump	Envirolab	4	1	<1	11	1	12	830	1500	1300	<100	2800	950	1900	850	<100	2750	930	1900	<1
QA/QC																								
734 Princes Highway	TRIP BLANK	-	14/12/2020	-	-	<1	<1	<1	<2	<1	<3	<20	<50	<100	<100	<100	<20	-	-	-	-	<20	-	<10

2-4m

											-			
				ТРН					CRC C	are TPH Fra	ctions			BTEX
Xylene (o)	Xylene Total	C6 - C9	C10 - C14	C15 - C28	C29-C36	+C10 - C36 (Sum of total)	C6-C10	C10-C16	C16-C34	C34-C40	C10 - C40 (Sum of total)	F1: C6-C10 less BTEX	F2: >C10-C16 less Naphthalene	Naphthalene
⊥g/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
1	3	20	50	100	100	100	20	50	100	100	100	20	50	0.01
350														16
	600													
	20													
	NL											6000	NL	NL
	NL											1000	1000	NL

SG09 SG10

SG11

SG12

SG13

SG14

SG15

CSV1

CSV2

AIR BLANK (AB)

INDOOR AIR (L1)

Vapour Pin Samples

SG09 SG10

SG11

SG12

SG13

SG14

SG15

CSV1 CSV2 8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

AIR BLANK (AB) 8/10/2020

INDOOR AIR (L1) 8/10/2020

749326

749326

749326

749326

749326

749326

749326

749344

749344

749344

749344

SHE	ET	B.7					в.	TEX			ТРН	CRC C	are TPH Fra	ctions			M	AH	
					Benzene	Toluene	Ethylbenzene	Kylene (m & p)	Kylene (o)	Kylene Total	>C10-C12	C6-C10	F1: C6-C10 less BTEX	=2: >C10-C16 less Naphthalene	1,2,4-trimethy Ibenzene	1,3,5-trimethy Ibenzene	I-methyl-4 ethyl benzene	sopropylbenzene	-propylbenzene
					mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m3	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m3	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>
				LOR	0.0016	0.005	0.0022	0.0035	0.0022	0.0066	0.02	0.01	0.01	0.01	0.0022	0.0024	0.0025	0.0026	0.0026
NEPM 2013 Soil Vapour	HSL Res. A&B, for Va	apour Intrusion, Sa	and																
0-1m					1	1300	330			220			180	130					
Modified HSL A/B (x10)	<ul> <li>Vapour Seepage Mo</li> </ul>	del (Box 5.1, CRC	2013)		10	13,000	3300			2200			1800	1300					
Monitoring_Round	Location_Code	Field_ID	Sampled_Date_Time	Lab_Report_Number															
Passive Gas Samples	SG01	SG01	8/10/2020	749326	< 0.027	0.007	0.42	1.9	0.57	-	0.028	5.8	3	0.028	< 0.0022	< 0.0024	-	0.0065	< 0.0026
	SG02	SG02	8/10/2020	749326	< 0.027	< 0.005	0.093	0.44	0.13	-	0.066	1.4	0.7	0.066	< 0.0022	<0.0024	-	<0.0026	< 0.0026
	SG03	SG03	8/10/2020	749326	< 0.027	< 0.005	0.046	0.21	0.059	-	0.22	0.66	0.33	0.22	<0.0022	<0.0024	-	<0.0026	<0.0026
	SG04	SG04	8/10/2020	749326	<0.027	< 0.005	<0.0035	< 0.0035	< 0.0033	-	< 0.02	< 0.01	< 0.01	< 0.01	<0.0022	<0.0024		<0.0026	<0.0026
	SG05	SG05	8/10/2020	749326	<0.027	< 0.005	0.0091	0.052	0.013	-	<0.02	0.15	0.077	< 0.01	<0.0022	<0.0024	-	<0.0026	<0.0026
	SG06	SG06	8/10/2020	749326	< 0.027	<0.005	< 0.0035	< 0.0035	< 0.0033	-	0.1	< 0.01	< 0.01	0.1	<0.0022	<0.0024		<0.0026	<0.0026
	SG07	SG07	8/10/2020	749326	< 0.027	<0.005	0.01	0.05	0.011	-	57	410	410	57	0.15	0.061		0.016	<0.0026
	SG08	SG08	8/10/2020	749326	< 0.027	< 0.005	< 0.0035	0.004	< 0.0033	-	0.12	0.024	0.011	0.12	< 0.0022	<0.0024	'	<0.0026	<0.0026

0.0065

0.04

0.06

0.053

0.02

0.045

< 0.007

1.1

<0.004

0.13

< 0.004

0.0037

0.34

0.0082

0.0045

0.0047

0.014

0.73

0.035

0.016

0.014

0.0092

0.067

0.015

0.0047

< 0.02

0.15

300

< 0.02

0.27

1.5

200

< 0.13

-

-

-

< 0.016

< 0.016

< 0.017

0.38

0.023

0.076

0.047

1610

0.13

0.14

<0.12 <0.12

1210

<0.13

0.36

0.019

0.07

0.02

1610

0.067

0.053

<0.12 <0.12 **1210** 

<0.13

< 0.01

0.15

300

< 0.01

0.27

1.5

200

< 0.13

0.55

<0.0022

0.006

0.0076

0.4

< 0.006

<0.0026 <0.0026

15

0.0038

-

-

-

< 0.0026

< 0.0026

<0.0026

5.5

< 0.0026

-

-

-

-

-

-

-

-

-

-

< 0.006

<0.0024

1.2

<0.0024

<0.0024

< 0.006

< 0.006

< 0.006

SG11

SG12

SG13

SG14

SG15

CSV1

CSV2

SG11

SG12 SG13

SG14

SG15

CSV2

Vapour Pin Samples

AIR BLANK (AB) CSV1

INDOOR AIR (L1)

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

8/10/2020

AIR BLANK (AB) 8/10/2020

INDOOR AIR (L1) 8/10/2020

749326

749326

749326

749326

749326

749344

749344

749344

749344

<0.043 <0.0066

<0.043 <0.0066

< 0.005

<0.043

-

-

-

<0.006

<0.006

-

-

<6

<6

<26

<7

-

-

-

-

-

<0.008

< 0.034

< 0.009

SHE	ETI	3.7																	
						PAH	VO	Cs	Organic										
					Styrene	Naphthalene	1,3-Butadiene	2,2,4-Trimethylpentane	Propene	Freon 114	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2-dichloroethane	1,2-dichloropropane	Benzyl chloride	Bromodichloromethane
					mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	ug/m3	mg/m <sup>3</sup>	mg/m3	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	µg/m3	mg/m <sup>3</sup>
				LOF	R 0.0021	0.0033	0.0011	9.3	0.0034	0.0035	0.0027	0.0033	0.0027	0.002	0.002	0.002	0.0023	2.6	0.0034
NEPM 2013 Soil Vapour	HSL Res. A&B, for Va	pour Intrusion, Sa	ind																
0-1m				1		0.8													
Modified HSL A/B (x10)	<ul> <li>Vapour Seepage Mod</li> </ul>	lel (Box 5.1, CRC	2013)			8													
Monitoring_Round	Location_Code	Field_ID	Sampled_Date_Time	Lab_Report_Number															
Passive Gas Samples	SG01	SG01	8/10/2020	749326	< 0.0033	< 0.0033	-	-	-	-	<0.0099	< 0.0033	<0.0057	<0.0095	< 0.043	< 0.0066	-	- · ·	-
	SG02	SG02	8/10/2020	749326	< 0.0033	< 0.0033	-	-	-	-	<0.0099	< 0.0033	<0.0057	<0.0095	< 0.043	<0.0066	-	-	- 1
	SG03	SG03	8/10/2020	749326	< 0.0033	< 0.0033	-	-	-	-	< 0.0099	< 0.0033	<0.0057	<0.0095	< 0.043	<0.0066	-	-	-
	SG04	SG04	8/10/2020	749326	< 0.0033	< 0.0033	-	-	-	-	<0.0099	< 0.0033	< 0.0057	<0.0095	< 0.043	<0.0066	-	<u>  - '</u>	- 1
	SG05	SG05	8/10/2020	749326	< 0.0033	< 0.0033	· ·	-	-	-	<0.0099	< 0.0033	< 0.0057	<0.0095	< 0.043	<0.0066	-		- 1
	SG06	SG06	8/10/2020	749326	< 0.0033	< 0.0033	· ·	-	-	-	< 0.0099	< 0.0033	< 0.0057	<0.0095	< 0.043	<0.0066	-	<u> </u>	<u> </u>
	SG07	SG07	8/10/2020	749326	< 0.0033	< 0.0033	-	-		-	<0.0099	<0.0033	<0.0057	<0.0095	< 0.043	<0.0066	-	<u> </u>	
	SG08	SG08	8/10/2020	749326	< 0.0033	< 0.0033	-	-		-	<0.0099	<0.0033	<0.0057	<0.0095	< 0.043	<0.0066	-	<u> </u>	
	SG09	SG09	8/10/2020	749326	< 0.0033	< 0.0033	-	-		-	<0.0099	<0.0033	<0.0057	<0.0095	< 0.043	<0.0066	-	<u> </u>	
	SG10	SG10	8/10/2020	749326	< 0.0033	< 0.0033	-	-		-	< 0.0099	<0.0033	<0.0057	<0.0095	< 0.043	<0.0066	- 1	1 - 1	-

-

-

-

-

< 0.003

< 0.011

< 0.003

0.064

0.25

< 0.0033

-

-

28,000

<24

-

-

-

<0.008

-

-

-

-

< 0.036

< 0.009

< 0.007

< 0.0033

<0.0033

< 0.009

< 0.0057

< 0.0057

SH	EET	<b>B.7</b>				01	1													
						Cn	lorinated H	ydrocarbo	ns											
					Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	cis-1,3-dichloropropene	Dichloromethane	Freon 113	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	trans-1,3-dichloropropene	Vinyl chloride
					mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>
				LC	DR 0.0052	0.0031	0.0043	0.0053	0.0024	0.0103	0.002	0.0023	0.0174	0.0038	0.0213	0.0027	0.0034	0.002	0.0023	0.0013
NEPM 2013 Soil Vapour	HSL Res. A&B, for Va	pour Intrusion, Sand																		<u> </u>
0-1m	<u> </u>		(0)																	
Modified HSL A/B (X10)	- Vapour Seepage Mod	el (Box 5.1, CRC 20	13)																	
Monitoring Round	Location Code	Field ID	Sampled Date Time	Lab Report Number																
Passive Gas Samples	SG01	SG01	8/10/2020	749326	-	< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	-	< 0.048
•	SG02	SG02	8/10/2020	749326	-	< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	<0.0056	< 0.0038	< 0.018	-	< 0.048
	SG03	SG03	8/10/2020	749326	-	< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	<0.0056	< 0.0038	< 0.018	-	<0.048
	SG04	SG04	8/10/2020	749326		< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	-	<0.048
	SG05	SG05	8/10/2020	749326	-	< 0.0084	-	-	0.23	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	- 1	< 0.048
	SG06	SG06	8/10/2020	749326	-	< 0.0084	-	-	0.11	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	- 1	< 0.048
	SG07	SG07	8/10/2020	749326		< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	-	<0.048
	SG08	SG08	8/10/2020	749326	-	< 0.0084	-	-	<0.0076	< 0.05	<0.0078	-	-	-	-	<0.0056	< 0.0038	< 0.018	-	<0.048
	SG09	SG09	8/10/2020	749326		< 0.0084	-		< 0.0076	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	-	< 0.048
	SG10	SG10	8/10/2020	749326	-	<0.0084	-		< 0.0076	< 0.05	<0.0078	-	-	-	-	<0.0056	0.0089	< 0.018	-	<0.048
	SG11	SG11	8/10/2020	749326	-	< 0.0084	-	-	<0.0076	< 0.05	<0.0078	-	-	-	-	<0.0056	< 0.0038	< 0.018	-	<0.048
	SG12	SG12	8/10/2020	749326	-	< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	-	< 0.048
	SG13	SG13	8/10/2020	749326	-	< 0.0084	-	-	< 0.0076	< 0.05	<0.0078	-	-	-	-	<0.0056	< 0.0038	< 0.018	-	<0.048
	SG14	SG14	8/10/2020	749326	-	< 0.0084	-	-	< 0.0076	< 0.05	< 0.0078	-	-	-	-	<0.0056	< 0.0038	< 0.018	-	<0.048
	SG15	SG15	8/10/2020	749326	-	<0.0084	-	- /	< 0.0076	< 0.05	<0.0078	-	-	-	-	< 0.0056	< 0.0038	< 0.018	L -	< 0.048
Vapour Pin Samples	AIR BLANK (AB)	AIR BLANK (AB)	8/10/2020	749344	< 0.012	< 0.007	<0.01	< 0.013	< 0.006	< 0.025	< 0.005	<0.005	< 0.041	< 0.009	<0.051	<0.006	<0.008	< 0.005	<0.005	< 0.003
	CSV1	CSV1	8/10/2020	749344	< 0.013	<0.008	<0.01	< 0.013	< 0.006	<0.025	< 0.005	<0.006	<0.042	< 0.009	<0.052	<0.007	<0.008	< 0.005	< 0.006	< 0.003
	CSV2	CSV2	8/10/2020	749344	< 0.053	< 0.032	<0.043	<0.054	<0.025	<0.105	<0.02	<0.023	<0.177	< 0.039	<0.218	<0.027	< 0.035	< 0.02	< 0.023	<0.013
	INDOOR AIR (L1)	INDOOR AIR (L1)	8/10/2020	749344	< 0.013	< 0.008	< 0.011	< 0.014	< 0.006	< 0.027	< 0.005	< 0.006	< 0.045	< 0.01	< 0.055	<0.007	<0.009	<0.005	<0.006	< 0.003

SHE	ETE	3.7																	
						1	1	Halogen	ated Hydr	ocarbons	1	1							
					1,2,4-trichlorobenzene	1,2-dibromoethane	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Bromomethane	Chlorobenzene	Dichlorodifluoromethane	Trichlorofluoromethane	1,4-Dioxane	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Acetone	Allyl chloride
					mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>
NEPM 2013 Soil Vapour	HSI Res A&B for Va	nour Intrusion Sand		Ľ	JK 0.015	0.0036	0.0018	0.0021	0.002	0.0194	0.0023	0.0025	0.0026	0.0072	0.0059	0.0062	0.0021	0.0119	0.0003
0-1m	TIOL Nes. Add, IOI Va	pour mitrasion, bana																	
					_														
Modified HSL A/B (x10) -	<ul> <li>Vapour Seepage Mod</li> </ul>	lel (Box 5.1, CRC 20	13)																
Modified HSL A/B (x10) -	- Vapour Seepage Mod	Field ID	13) Sampled Date Time	Lab Papart Number															
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	- Vapour Seepage Mod	iel (Box 5.1, CRC 20 Field_ID	13) Sampled_Date_Time	Lab_Report_Number			<0.0018	<0.0021	<0.002	-	<0.0041			-	-			-	-
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	- Vapour Seepage Mod Location_Code	lel (Box 5.1, CRC 20 Field_ID  SG01  SG02	13) Sampled_Date_Time 8/10/2020 8/10/2020	Lab_Report_Number 749326 749326	:		<0.0018	<0.0021	<0.002	-	<0.0041	-	-	-	- -	-	- -	-	-
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	- Vapour Seepage Mod Location_Code SG01 SG02 SG03	iel (Box 5.1, CRC 20 Field_ID SG01 SG02 SG03	13) Sampled_Date_Time 8/10/2020 8/10/2020 8/10/2020	Lab_Report_Number 749326 749326 749326	:   :	-	<0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002	- - -	<0.0041 <0.0041 <0.0041	-		- - -	- - -	-	- - -	-	- - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	- Vapour Seepage Mod Location_Code SG01 SG02 SG03 SG04	iel (Box 5.1, CRC 20 Field_ID SG01 SG02 SG03 SG04	13) Sampled_Date_Time 8/10/2020 8/10/2020 8/10/2020 8/10/2020	Lab_Report_Number           749326           749326           749326           749326           749326		-	<0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002	- - - -	<0.0041 <0.0041 <0.0041 <0.0041	- - - -				-			- - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Location_Code SG01 SG02 SG03 SG04 SG05	lel (Box 5.1, CRC 20 Field_ID SG01 SG02 SG03 SG04 SG05	13) Sampled_Date_Time 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326			<0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002	- - - - -	<0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - -		- - - - -			- - - -	- - - - -	- - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod Location_Code SG01 SG02 SG03 SG04 SG05 SG06	lel (Box 5.1, CRC 20 Field_ID SG01 SG02 SG03 SG04 SG05 SG06	Sampled_Date_Time           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326		- - - - -	<0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002	- - - - -	<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - - -		- - - - - -	- - - - -			- - - - -	- - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod     SG01     SG02     SG03     SG04     SG05     SG06     SG07	lel (Box 5.1, CRC 20 Field_ID SG01 SG02 SG03 SG04 SG05 SG06 SG06 SG07	Sampled_Date_Time           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326		- - - - - -	<0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002	- - - - - -	<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - - - -		- - - - - - - -	- - - - - - - -	- - - - - - - -	- - - - - - -	- - - - - -	- - - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod     SG01     SG02     SG03     SG04     SG05     SG06     SG07     SG08	Field_ID           SG01           SG02           SG03           SG04           SG05           SG06           SG07           SG08	Sampled_Date_Time           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326		- - - - - - - -	<0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002	- - - - - - -	<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - - - - - - -		- - - - - - - - - - - - -	- - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - -	- - - - - - - - - -	- - - - - - - - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod           Location_Code           SG01           SG02           SG03           SG04           SG05           SG06           SG07           SG08           SG09	SG01         SG01           SG03         SG04           SG05         SG05           SG07         SG08           SG09         SG09	13) Sampled_Date_Time 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326		- - - - - - - - - - - - - - -	<0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002	- - - - - - - - - - - -	<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - - - - - - - - - - -		- - - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - -	- - - - - - - - - - - - - -	- - - - - - - - - - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod           Location_Code           SG01           SG02           SG03           SG04           SG05           SG06           SG07           SG08           SG09           SG10	SG01         SG02           SG04         SG05           SG05         SG06           SG06         SG07           SG08         SG09           SG1         SG1	Sampled_Date_Time           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326		- - - - - - - - - - - - - - - - - - -	<pre>&lt;0.0018 &lt;0.0018 &lt;</pre>	<pre>&lt;0.0021 &lt;0.0021 </pre>	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002	- - - - - - - - - - - -	<pre>&lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041 &lt;0.0041</pre>	- - - - - - - - - - - - - - -		- - - - - - - - - - - - - -	- - - - - - - - - - - - -		- - - - - - - - - - - - - - - -	- - - - - - - - - - - -	- - - - - - - - - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Moc     Location_Code     SG01     SG02     SG03     SG04     SG05     SG06     SG06     SG07     SG08     SG09     SG10     SG11	Field_ID           SG01           SG02           SG03           SG04           SG05           SG06           SG07           SG08           SG09           SG10           SG11	Sampled_Date_Time           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326		- - - - - - - - - - - - - - - - - - -	<ul> <li>&lt;0.0018</li> </ul>	<pre>&lt;0.0021 &lt;0.0021 </pre>	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002		<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - - - - - - - - - - - - - -	- - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -	- - - - - - - - - - - - - - -	- - - - - - - - - - - - -	- - - - - - - - - - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod Location_Code SG01 SG02 SG03 SG04 SG05 SG05 SG05 SG06 SG07 SG08 SG09 SG10 SG11 SG11 SG12	SG01         SG01           SG03         SG04           SG05         SG06           SG07         SG08           SG09         SG10           SG11         SG12	Sampled_Date_Time           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326			<ul> <li>&lt;0.0018</li> </ul>	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002		<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041	- - - - - - - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -				- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod           Location_Code           SG01           SG02           SG03           SG04           SG05           SG07           SG08           SG09           SG10           SG11           SG12           SG13	Field_ID           SG01           SG02           SG03           SG04           SG05           SG07           SG08           SG01           SG01           SG02           SG03           SG04           SG05           SG06           SG07           SG08           SG10           SG11           SG12           SG13	Sampled_Date_Time           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326			<0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018 <0.0018	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<ul> <li>&lt;0.002</li> </ul>		<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <b>0.14</b>	- - - - - - - - - - - - - - - - - - -							
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod           Location_Code         SG01           SG02         SG03           SG04         SG05           SG05         SG08           SG09         SG10           SG11         SG12           SG12         SG13           SG13         SG14	SG01           SG01           SG02           SG03           SG04           SG05           SG06           SG07           SG08           SG10           SG1           SG2           SG05           SG06           SG07           SG08           SG11           SG12           SG12           SG13           SG14	Sampled_Date_Time           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326			<ul> <li>&lt;0.0018</li> <li>&lt;0.0018</li></ul>	<ul> <li>&lt;0.0021</li> </ul>	<ul> <li>&lt;0.002</li> </ul>		<0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041 <0.0041			- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -			
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples	Vapour Seepage Mod Location_Code SG01 SG02 SG03 SG04 SG05 SG06 SG07 SG08 SG09 SG10 SG10 SG11 SG12 SG13 SG14 SG15	SG01           SG01           SG03           SG04           SG05           SG06           SG07           SG08           SG09           SG11           SG12           SG13           SG04           SG05           SG06           SG07           SG08           SG10           SG11           SG12           SG13           SG14           SG15	Sampled_Date_Time           8/10/2020	Lab_Report_Number 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326 749326			<ul> <li>&lt;0.0018</li> </ul>	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<ul> <li>&lt;0.002</li> </ul>		<pre>&lt;0.0041 &lt;0.0041 &lt;</pre>	- - - - - - - - - - - - - - - - - - -		- - - - - - - - - - - - - - - - - - -			- - - - - - - - - - - - - - - - - - -		
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples Vapour Pin Samples	Vapour Seepage Mod           Location_Code         SG01           SG02         SG02           SG03         SG04           SG05         SG05           SG07         SG08           SG09         SG11           SG12         SG13           SG14         SG15           AIR BLANK (AB)         AIR BLANK (AB)	SG01           SG01           SG02           SG03           SG04           SG05           SG07           SG08           SG09           SG10           SG11           SG12           SG13           SG14           SG15           SG16           SG17           SG18           SG11           SG12           SG13           SG14           SG15           AIR BLANK (AB)	Sampled_Date_Time           8/10/2020	Lab_Report_Number 749326	· · · · · · · · · · · · · · · · · · ·		<ul> <li>&lt;0.0018</li> </ul>	<ul> <li>&lt;0.0021</li> </ul>	<ul> <li>&lt;0.002</li> <li>&lt;0.007</li> </ul>		<pre>&lt;0.0041 &lt;0.0041 &lt;</pre>	- - - - - - - - - - - - - - - - - - -		· · · · · · · · · · · · · · · · · · ·	- - - - - - - - - - - - - - - - - - -				
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples Vapour Pin Samples	Vapour Seepage Mod           Location_Code         SG01           SG02         SG03           SG04         SG05           SG06         SG08           SG09         SG11           SG12         SG13           SG13         SG14           SG15         SG15           AIR BLANK (AB)         CSV1	SG01           SG01           SG02           SG03           SG04           SG05           SG07           SG08           SG10           SG11           SG12           SG13           SG14           SG15           SG16           SG17           SG18           SG19           SG11           SG12           SG14           SG15           SG14           SG15           SG14           SG15           SG14           SG15           SG14           SG15           AIR BLANK (AB)           CSV1	Sampled_Date_Time           8/10/2020	Lab_Report_Number           749326		- - - - - - - - - - - - - - - - - - -	<ul> <li>&lt;0.0018</li> <li>&lt;0.0018</li></ul>	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.007		<pre>&lt;0.0041 &lt;0.0041 &lt;0.005 &lt;0.</pre>							- - - - - - - - - - - - - - - - - - -	
Modified HSL A/B (x10) - Monitoring_Round Passive Gas Samples Vapour Pin Samples	Vapour Seepage Mod           Location_Code         SG01           SG01         SG02           SG03         SG04           SG05         SG06           SG07         SG08           SG09         SG10           SG11         SG12           SG12         SG13           SG13         SG14           SG14         SG13           SG15         SG14           SG16         SG15           AIR BLANK (AB)         CSV1           CSV2         CSV2	SG01           SG01           SG03           SG04           SG05           SG06           SG07           SG08           SG09           SG11           SG12           SG13           SG16           SG17           SG18           SG19           SG11           SG12           SG13           SG15           AIR BLANK (AB)           CSV1           CSV2	13) Sampled_Date_Time 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020 8/10/2020	Lab_Report_Number 749326			<ul> <li>&lt;0.0018</li> <li>&lt;0.0011</li> <li>&lt;0.0018</li> <li>&lt;0.007</li> <li>&lt;0.007</li> <li>&lt;0.007</li> <li>&lt;0.007</li> </ul>	<0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021 <0.0021	<ul> <li>&lt;0.002</li> <li>&lt;0.0031</li> </ul>		<ul> <li>&lt;0.0041</li> <li>&lt;0.0041</li></ul>			<					

SH

ET B.7											
			Carbon disulfide	Cyccohexane	Ethanol	Heptane	Hexane	2-Propanol	MTBE	Tetrahydrofuran	. Vinyl acetate
			mg/m <sup>3</sup>								
		LOR	0.0062	0.0017	0.0038	0.0021	0.0035	0.049	0.0072	0.0015	0.007
NEPM 2013 Soil Vapour HSL Res. A&B, for Vapour In	trusion, Sand										
0-1m											
Madification A/D (v40) Manager Cases and Madal (Davi											

Monitoring_Round	Location_Code	Field_ID	Sampled_Date_Time	Lab_Report_Number									
Passive Gas Samples	SG01	SG01	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG02	SG02	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG03	SG03	8/10/2020	749326	-	-	-	-	•	-	-	-	-
	SG04	SG04	8/10/2020	749326	-		-	-	-	-	-	-	-
	SG05	SG05	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG06	SG06	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG07	SG07	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG08	SG08	8/10/2020	749326	-	-	-	-	· ·	-	-	-	-
	SG09	SG09	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG10	SG10	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG11	SG11	8/10/2020	749326		-	-	-	•	-	-	-	-
	SG12	SG12	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG13	SG13	8/10/2020	749326	-	-	-	-	•	-	-	-	-
	SG14	SG14	8/10/2020	749326	-	-	-	-	-	-	-	-	-
	SG15	SG15	8/10/2020	749326	-	-	-	-		-	-	-	-
Vapour Pin Samples	AIR BLANK (AB)	AIR BLANK (AB)	8/10/2020	749344	< 0.015	< 0.004	0.13	<0.005	< 0.004	16	< 0.017	<0.004	<0.017
	CSV1	CSV1	8/10/2020	749344	<0.015	< 0.004	<0.009	<0.005	< 0.004	36	<0.018	<0.004	<0.017
	CSV2	CSV2	8/10/2020	749344	< 0.064	<0.018	<0.038	<0.021	<0.018	< 0.501	< 0.074	<0.015	<0.072
	INDOOR AIR (L1)	INDOOR AIR (L1)	8/10/2020	749344	< 0.016	< 0.004	0.39	< 0.005	< 0.005	<0.126	< 0.019	< 0.004	<0.018

Appendix C: Borehole logs

# FINAL
	D	C	arc	Ino						E	BOR	EHOLE LOG SHEET
Clie	ent: ject:	1	rfns M6 S 7-Fie	W tage 1 Co ven Koga	ntamination l	nvesti	gation				Нс	ole No: CBH01
Pos	osition: Refer to Appendix A - Figure 3								Angle from Horizontal: 90° Sur			Sneet: 1 of 1
Rig	Туре	: Ge	opro	obe 7822d	lt				Mounting: Track		Driller	: MB
Cas	sing I	Diam	eter:								Contra	actor: Matrix Drilling
Dat	a Sta	rted:	3/8/	20	Date Con	plete	d: 3/8/	20	Logged By: CL		Check	ed By: CC
	Drilling	3		Sampl	ing & Testing				Material Descripti	on		
Method	Resistance	Casing	Water	S	ample or ield Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
AD/T						-			ASPHALT: medium to coarse, poorly graded, blac 0.15m no odour observed, hard	k, D		PAVEMENT 0.00 m: Asphalt layer broken through with auger tip
				ES 0.15 - 0 CBH01-0.0 PID 0.20 m	.20 m 5-0.1 0.2 ppm	Ļ	0 0 0 0 0 0	SP	FILL: Gravelly SAND: fine to coarse grained, gap graded, dark grey / grey, coarse grained gravel, n 0.35m odour observed, medium dense to loose	D M		FILL 0.15 m: Asphalt and road base observed
						- 0.5			FILL: SAND: fine to medium grained, well graded, grey / brown, with coarse grained gravel, with coarse grained cobbles, no odour observed, loose	•		0.35 m: Clay pipe fragment and trace asphalt, brick and concrete observed
H				ES 0.65 m CBH01-0.5 PID 0.65 m	0.1 ppm	- - - 1.0		sw		М		
	_			ES 1.15 m CBH01-1.0		- - -			1.15m Sandy CLAY: medium to high plasticity, dark grey grey, fine to medium grained sand, trace coarse grained sandstone gravel, strong hydrocarbon odour (fuel) observed	/	-	RESIDUAL SOIL
				PID 1.35 m	14.2 ppm	- 1.5 -		CI-		M to W		
200- B						- 2.0						
- FT -				ES 2.15 m CBH01-2.0 PID 2.35 m	ES 2.15 m CBH01-2.0 PID 2.35 m 450.2 ppm				2.15m Sandy CLAY: high plasticity, mottled red / green / grey / orange, fine to medium grained sand, slight hydrocarbon odour (fuel) observed			
						-		СН		w		
				PID 3.00 m ES 3.15 m	150.6 ppm	- 3.0			3.25m			
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5						- - -3.5			TERMINATED AT 3.25 m Refusal on bedrock NOTE: Environmental sample labelling indicates depth measured from first fill / soil contact			
						4.0						
						F						
ME EX R PTC AC A	METHOD     PENETRATION     Fit       EX     Excavator bucket     VE     Very Easy (No Resistance)     Sit       HA     Hand auger     F     Easy     HI       PT     Push tube     Hard     Do       AH     Air hammer     VH     Very Hard (Refusal)     PH       PS     Percussion sampler     AS     Short spiral auger     Mater Level on Date shown       AD/V     Solid flight auger:     V-Bit     Shown     PH       WB     Washbore drilling     water outflow     V3				ELD TESTS       SAMPL         PT - Standard Penetration Test       B -         P - Hand/Pocket Penetrometer       D -         CP - Dynamic Cone Penetrometer       U -         SP - Perth Sand Penetrometer       U -         C - Moisture Content       MOISTU         BT - Plate Bearing Test       D -         ID - Photoionisation Detector       W -         S - Vane Shear; P=Peak,       R=Resdual (uncorrected kPa)	ES Bulk disturb Disturbed sa Environmen Thin wall tul IRE Dry Moist Wet Plastic limit Liquid limit Moisture con	ed samp ample tal samp be 'undis be tundis	le VS - Very Soft S - Soft s - Soft sturbed' VS - Very Soft S - Soft VSt - Stiff VSt - Very Stiff H - Hard <b>RELATIVE DENSITY</b> VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense				
Ret	fer to ex previation	planatory is and b	/ notes f	for details of descriptions			CAF		NO (NSW/ACT) PTY LTD			

nt: ect: ation: tion:	TN	fNSV	N							ENOLE LOG SHEET	
ation: tion:			age 1 Contamination	Investi	aation				Нс	ole No: CBH02	
tion:	1	-Elev	ven Kogarah	investi	gution		Job No: NE30054			Sheet: 1 of 1	
	Refe	er to	Appendix A - Figure 3	3			Angle from Horizontal: 90°	Surface Elevation:			
na Di	Ge iame	opro ter:	be 78220t				Mounting: Track		Contra	: MB actor: Matrix Drilling	
Star	ted:	3/8/2	20 Date Co	mplete	d: 3/8/	20	Logged By: CL	(	Check	ed By: CC	
Drilling			Sampling & Testing				Material Description	ı			
Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
							ASPHALT: medium to coarse, poorly graded, black,	D		PAVEMENT 0.00 m: Asphalt laver broken through	
			ES 0.10 - 0.15 m CBH02-0.05-0.1 PID 0.20 m 1.5 ppm		0 0 0 0 0 0 0 0 0 0		FILL: Gravelly SAND: fine to coarse grained, gap graded, brown / grey, coarse grained gravel, slight hydrocarbon odour (fuel) observed, loose to medium dense			with auger tip FILL 0.10 m: Trace asphalt, concrete and brick observed	
			ES 0.60 m CBH02-0.5 PID 0.60 m 3.8 ppm	0.5 - - -		SP	0.90m	м			
			ES 1.10 m CBH02-1.0 & QC100 & QC200 PID 1.10 m 20 5 ppm	- - 1.0 -		CI- CH	Sandy CLAY: medium to high plasticity, grey / green fine to medium grained sand, trace coarse grained sandstone gravel, strong hydrocarbon odour (fuel) observed	м		RESIDUAL SOIL	
			Fib 1.10 in 20.5 ppin	- 1.5 -			1.60m Sandy CLAY: medium to high plasticity, mottled red /		-	-	
			FS 240 m	- 2.0		CI-	orange / green / grey / white, tine to medium grainec sand, trace coarse grained sandstone and other gravel, strong hydrocarbon odour (fuel) observed	M to W		-	
			CBH02-2.0 PID 2.10 m 1727 ppm	- - 2.5				ŀ			
				- - - -3.0		СН	2.60m Sandy CLAY: high plasticity, mottled red / orange / green / grey / white, fine to medium grained sand, trace coarse grained sandstone and ironstone gravel, strong hydrocarbon odour (fuel) observed	w	-		
			ES 3.10 m CBH02-3.0	_			3.20m				
			עויין 3.10 m 506.5 ppm				Refusal on bedrock NOTE: Environmental sample labelling indicates depth measured from first fill / soil contact				
				- - 4.0						-	
				-							
METHOD       PENETRATION         EX       Excavator bucket         R       Ripper         HA       Hand auger         PT       Push tube         SON       Sonic drilling         AH       Air hammer         PS       Percussion sampler         AS       Short spiral auger         AD/V       Solid flight auger: V-Bit         AD/T       Solid flight auger: TC-Bit         HFA       Hollow flight auger: WB         Washbore drilling       RR         RR       Rock roller				FI S H	ELD TESTS         SAMPLES           PT - Standard Penetration Test         B - E           P - Hand/Pocket Penetrometer         D - E	ulk disturbe isturbed sa	ed samp ample tal samp	SOIL CONSISTENCY           le         VS         - Very Soft           S         - Soft           le         F         - Firm			
	HOD	HOD	HOD Excavator buckee Biopor	HOD Excavator bucket Ripper	ES 2.10 m CBH02-2.0 PID 2.10 m 1727 ppm         -           ES 3.10 m CBH02-3.0         -           BID 3.10 m 506.5 ppm         -           -3.0         -           ES 3.10 m         -           -3.0	ES 2.10 m CBH02-2.0 PID 2.10 m 1727 ppm         -2.0           Fib 2.10 m 1727 ppm         -2.5           -3.0         -3.0           ES 3.10 m CBH02-3.0 PID 3.10 m 506.5 ppm         -3.0           Fib 3.10 m 506.5 ppm         -3.5           -3.5         -4.0           -4.0         -4.0           Excavator bucket Ripper Hand auger         PENETRATION VE Very Easy (No Resistance) E Easy	ES 2.10 m CBH02-2.0 PID 2.10 m 1727 ppm         -2.0 -2.0 -2.0 -2.0 -2.5         CH CH -2.5 -2.5           ES 3.10 m CBH02-3.0 PID 3.10 m 506.5 ppm         -2.5 -3.5 -3.5         CH -3.0 -3.5           ES 3.10 m CBH02-3.0 PID 3.10 m 506.5 ppm         -3.5 -3.5 -3.5 -4.0 -4.0 -4.0 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5 -5	HOD     PID 2.10 m 1727 ppm     -2.0     CH       -2.5     -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -2.5     -2.5       -3.0     -2.5       -3.0     -3.5       -3.0     -3.5       -3.5     -3.5       -3.5     -3.5       -4.0     -4.0       -4.0     -4.0       -4.0     -4.0       -4.0     -5.5       -5.5     -5.5       -6.7     -5.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5       -7.5     -7.5 <td>Hot Price     Penetration       Prid 2:10 m     Penetration       Prid 2:10 m     1727 ppm       -2.5     2.60m       -3.0     3.20m       -3.5     -3.5       -3.5     -3.5       -3.5     -3.5       -3.5     -3.5       -3.6     -4.0&lt;</td> <td>CH     CH     Mo W       ES 2.10 m     CH       CBH02-2.0     CH       PID 2.10 m 1727 ppm     -2.5       -2.5     -2.6       Sardy CLAY: high plasticity, mottled red / orange / green / grey / while. fire to mottled red / orange / trace coarse grained sandstone and ironstone gravel, strong hydrocarbon odour (fuel) observed       CH     -3.0       CH     -3.0       CH     -3.0       CH     -3.0       CH     W       VU     -3.0       CH     -3.0       CH     W       CH     -3.0       CH     W       CH     W       VU     -3.0       CH     -3.0       CH     W       CH     W       VU     -3.0       CH     -3.0       CH     -3.0       CH     W       CH     -3.0       CH     <t< td=""></t<></td>	Hot Price     Penetration       Prid 2:10 m     Penetration       Prid 2:10 m     1727 ppm       -2.5     2.60m       -3.0     3.20m       -3.5     -3.5       -3.5     -3.5       -3.5     -3.5       -3.5     -3.5       -3.6     -4.0<	CH     CH     Mo W       ES 2.10 m     CH       CBH02-2.0     CH       PID 2.10 m 1727 ppm     -2.5       -2.5     -2.6       Sardy CLAY: high plasticity, mottled red / orange / green / grey / while. fire to mottled red / orange / trace coarse grained sandstone and ironstone gravel, strong hydrocarbon odour (fuel) observed       CH     -3.0       CH     -3.0       CH     -3.0       CH     -3.0       CH     W       VU     -3.0       CH     -3.0       CH     W       CH     -3.0       CH     W       CH     W       VU     -3.0       CH     -3.0       CH     W       CH     W       VU     -3.0       CH     -3.0       CH     -3.0       CH     W       CH     -3.0       CH <t< td=""></t<>	

	Cardno' BOREHOLE LOG SHEET												
Clic Pro	ent: ject: catior	ר ת ז: 7	fNS 1/6 S 7-Ele	W tage 1 Contamination I ven Kogarah	nvesti	gation		Job No: NE30054		Hc	Die No: CBH03		
Pos	sition	: Ref	er to	Appendix A - Figure 3				e Elevation:					
Rig	Туре	e: Ge	opro	be 7822dt			Mounting: Track Driller: MB						
Cas	sing [	Diam	eter:	Doto Com	minter	J. 2/0/	20	Longood Dug Cl		Contra	ctor: Matrix Drilling		
Dai		rtea:	3/0/.	20 Date Corr	ipieteo	u: 3/0/.	20	Logged By: CL Material Description		JUECK			
		J 					_	Material Description					
Method	Resistance	Casing	Water	Sample or Field Test	Depth (n	Graphic Log	Classificatior	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
ΓQ								0.10m ASPHALT: medium to coarse, poorly graded, black,	D		PAVEMENT 0.00 m: Asphalt layer broken through		
X				ES 0.10 - 0.15 m CBH03-0.05-0.1	1	0 0		FILL: Gravelly SAND: fine to coarse grained, poorly			with auger tip		
				PID 0.15 m 0.2 ppm			SP	graded, brown / grey, coarse grained gravel, with medium plasticity (2ay, with coarse grained sandstone and other gravels and cobbles, no odour observed, loose to medium dense 0.50m	м		0.10 m: Trace asphalt, concrete and glass observed		
— HA —				ES 0.60 m CBH03-0.5 PID 0.60 m 0.2 ppm	- 0.5		sc	FILL: Clayey SAND: fine to medium grained, well graded, brown / grey, medium plasticity clay, no odour observed, loose to medium dense 0.90m	м		0.50 m: Trace coal, asphalt and concrete observed		
	-			ES 1.10 m CBH03-1.0	- 1.0			Sandy CLAY: medium to high plasticity, mottled orange / brown / red / green, fine to medium grained sand, trace coarse grained sandstone gravel, slight hydrocarbon odour (fuel) observed			RESIDUAL SOIL		
				PID 1.10 m 0.3 ppm	- - 1.5		CI- CH		M to W		-		
200					-			1.90m			-		
- PT -				ES 2.10 m CBH03-2.0 PID 2.10 m 312 7 ppm	-2.0 -			Sandy CLAY: high plasticity, white / red, fine to medium grained sand, trace coarse grained sandstone gravel, slight hydrocarbon odour (fuel) observed			-		
					- - - 2.5		сн		M to W		-		
N N				F0.0.00	-			2.90m			-		
				CBH03-2.8 PID 2 90 m 26 3 ppm	- 3.0			TERMINATED AT 2.90 m Refusal on bedrock	1		-		
b b				7 10 2.00 m 20.0 ppm	- - -			depth measured from first fill / soil contact					
					- 3.5 - -								
					E						-		
					-4.0				1		-		
					-								
							-						
MI R HA S S A S A S A S A S A S A S A S A S	METHOD       PENETRATION         EX       Excavator bucket       VE       Very Easy (No Resistance)         R       Ripper       Easy         HA       Hand auger       Firm         PT       Push tube       Firm         SON       Sonic drilling       VH         AH       Air hammer       VH         PS       Percussion sampler         AD/V       Solid flight auger: VC-Bit         AD/T       Solid flight auger: TC-Bit         HFA       Hollow flight auger         WB       Washbore drilling         RR       Rock roller					F SHDP≱P INP V	ELD TESTS     SAMPLES       PT - Standard Penetration Test     B - Bu       P - Hand/Pocket Penetrometer     D - Dis       CP - Dynamic Cone Penetrometer     ES - En       C - Moisture Content     MOISTURE       BT - Plate Bearing Test     D - Dr       ID - Photoionisation Detector     W - Wk       S - Vane Shear, P=Peak,     R=Resdual (uncorrected kPa)	Ik disturbed sa vironment in wall tub is vist sist sist astic limit uid limit sisture con	ed sampl imple al sampl e 'undist	e VS - Very Soft Soft CONSISTENCY VS - Very Soft F - Firm VSt - Stiff VSt - Very Stiff H - Hard <b>RELATIVE DENSITY</b> VL - Very Loose L - Loose MD - Medium Dense D - Dense VD - Very Dense			
Re	fer to exp	planatory	notes t	or details of		CAR		NO (NSW/ACT) PTY LTD					

Clie	nt: ject:	C	TfNS M6 S	<b>Uno</b> W tage 1 Con	ntamination I	nvesti	gation					B	ORE HC	EHOLE L	OG SHEET
	ation	1: · Ref	er to	Annendix	ran A - Figure 3					Job No: NE30054	I. 90°		Surfac	e Flevation	Sheet: 1 of '
Ria	Type	: Ge		be 7822d	t					Mounting: Track			Driller: MB		
Cas	ing	Diam	eter:		-							(	Contra	actor: Matrix	x Drilling
Dat	a Sta	rted	3/8/	20	Date Cor	nplete	d: 3/8/	20		Logged By: CL		(	Check	ed By: CC	
	Drilling	g		Sampli	ng & Testing					Materia	al Description				
			1			Ê		Ę							
Method	Resistance	Casing	Water	Sa Fi	ample or eld Test	Depth (i	Graphic Log	Classificatio	S	OlL TYPE, plasticity or particle ch colour, secondary and minor con ROCK TYPE, grain size and type fabric & texture, strength, weat defects and structure	aracteristic, nponents e, colour, hering,	Moisture Condition	Consistency Relative Density	ST & Othe	RUCTURE er Observations
-00-						-	· <i>P</i> E		0.15m	CONCRETE: medium to coarse, poor grey, no odour observed, hard	orly graded,	D		PAVEMENT 0.00 m: Concret	te corer used to drill
•	ĺ			ES 0.15 - 0.	20 m	7	0 0 0 0			FILL: Gravelly SAND: fine to coarse	grained, well		1	FILL	liciele
				PID 0.20 m	0.1 ppm	1	0 0 0 0	SP	0.45m	graded, brown, coarse grained grave medium plasticity clay, with coarse g sandstone and other gravels and col observed, loose to medium dense	el, trace rained bbles, no odour	м		0.15 m: Trace a brick	sphalt, concrete and
						-0.5			0.4011	FILL: SAND: fine to medium grained	, well graded,			0.45 m: Trace c	oncrete and brick
 ∡						F		-		observed, loose	avel, no odour				
Ĭ				ES 0.65 m CBH04-0.5 PID 0.65 m	1.8 ppm	ŀ		sw							
						F		:	0.95m						
						- 1.0				Sandy CLAY: low to medium plasticit	y, grey / brown,			RESIDUAL SOI	L
Y						F				sandstone gravel, trace coarse grain	ned sandstone				
Î				ES 1.15 m CBH04-1.0		F						м			
				PID 1.15 m	142.9 ppm	F									
						1		CL-							
						-1.5									-
						_									
						-			1.95m						
						-2.0			1.5511	Sandy CLAY: high plasticity, red with	mottled grey /				-
ך 						F .		CI-		white / orange, fine to medium graine interbedded coarse grained sandsto	ed sand, with ne gravels and	Man			
				ES 2.15 m CBH04-2.0		F		СН		cobbies, slight hydrocarbon odour (fi	uel) observed				
				PID 2.15 m	31.2 ppm	F			2.35m						
				E0.0.45 m		F				Sandy CLAY: medium to high plastic fine to medium grained sand, trace of	ity, grey / red, oarse grained				
				CBH04-2.3		-2.5		СН		gravel, slight hydrocarbon odour (fue	el) observed	w			
				PID 2.45 m	4.8 ppm	Ē		<u> </u>	2.65m	Sandy CLAV: bigh placticity, white / r	od fino to		-		
										medium grained sand, slight hydroca	irbon odour	м			
										(idei) observed		IVI			
				ES 2.95 m		- 3.0	<i><u> </u></i>		2.95m	TERMINATED AT 2.95 m				+	
				CBH04-3.0 PID 2.95 m	2.4 ppm	-				Refusal on bedrock NOTE: Environmental sample labellin	ng indicates				
						F	1			depth measured from first fill / soil co	ontact				
						F									
						F	1								
						- 3.5	1								
						F	1								
						F	1								
						Ľ	1								
						40	1								
							1								
						F	1								
						F	1								
						F	1								
ME	THOD	)	I	I	PENETRATION		1	F	IELD T	ESTS	SAMPLES	1	I	so	IL CONSISTENCY
EX R	Ex	cavato	r buck	et	VE Very Easy (I	No Resista	nce)	S	SPT -	Standard Penetration Test	B - Bul	k disturb	ed samp	le VS	- Very Soft
HA	Ha	and au	ger		E Easy F Firm				1P - 0CP -	Dynamic Cone Penetrometer	ES - Env	vironment	al sample	le F	- Firm
SC	N Sc	onic dri	ling		H Hard VH Very Hard (F	Refusal)		P	PSP -	Perth Sand Penetrometer		n wan tub	e undis	VS	t - Very Stiff
PS	Pe	rcussi	on san	npler	WATER			P P	BT -	Plate Bearing Test		,			- naro
AS AD	Sh /V Sc	ort spi blid flig	rai aug nt aug	er: V-Bit	Water shown	Level or	n Date		MP -	Borehole Impression Test	M - Moi W - We	ist t			- Very Loose
AD HF	/T So A Ho	olid flig bllow fli	nt aug ght au	er: TC-Bit Iger	water i	nflow			/S -	Vane Shear; P=Peak,	PL - Pla	stic limit			- Loose ) - Medium Dense
WE RR	8 W	ashbor ock roll	e drilli er	ng		outflow				R=Resdual (uncorrected kPa)	w - Moi	isture cor	ntent	D VD	<ul> <li>Dense</li> <li>Very Dense</li> </ul>
Rof	er to ev	planator	/ notes	for details of			0.45							[	
abb	reviation	ns and b	asis of (	descriptions			CAF	۲U	Uν	(INSVV/ACT) PTY	LID				

	D	C	arc	Ino							В	ORE	EHOLE LO	OG SHEET
Clie	nt: ect	7	fns 46 S	W tage 1 Co	ntamination	nvesti	nation					Hc	ole No:	CBH05
Loc	atior	1: 7	-Ele	ven Koga	rah		gutton		Job No: NE30054					Sheet: 1 of 1
Pos	ition	: Ref	er to	Appendi	x A - Figure 3				Angle from Horizontal: 9	)0°	Surface Elevation:			
Cas	ina [	)iam	eopro	DDE /8220	π				wounting: Track			Contra	ctor: Matrix	Drilling
Data	a Sta	rted:	3/8/2	20	Date Cor	nplete	d: 3/8/	20	Logged By: CL		C	Check	ed By: CC	3
[	Drilling	9		Sampl	ing & Testing				Material De	escription				
Method	Resistance	Casing	Water	S	ample or ield Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle charact colour, secondary and minor compon ROCK TYPE, grain size and type, col fabric & texture, strength, weatherin defects and structure	teristic, ients lour, ig,	Moisture Condition	Consistency Relative Density	STR & Other	UCTURE Observations
с								-	0.10m CONCRETE: medium to coarse, poorly g	raded,	D		PAVEMENT	corer used to drill
A				ES 0.10 - 0 CBH05-0.0	.15 m 5-0.1	1		sw	FILL: SAND: fine to medium grained, well	graded,	м		hole through conc	rete
				PID 0.15 m	22.7 ppm	-			<u>0.30m</u> yellow / brown, with coarse grained gravel coarse grained cobbles, no odour observe	l, with red, loose			0.10 m: Asphalt, b	rick, ballast and
				ES 0.60 m CBH05-0.5 PID 0.60 m	19.6 ppm	- 0.5 - - -		SC	FILL: Clayey SAND: fine to medium grain graded, brown / grey, medium plasticity cla coarse grained gravel, with coarse graine no odour observed, loose to medium dens	ed, well ay, with ed cobbles, se	М		0.30 m: Trace cor observed	crete and brick
				ES 1.10 m CBH05-1.0 PID 1.10 m	82.2 ppm	- 1.0 - - - - 1.5		CI- CH	Sandy CLAY: medium to high plasticity, gr brown, fine to medium grained sand, with o grained sandstone gravel, slight hydrocarl (fuel) observed	rey / coarse bon odour	М		RESIDUAL SOIL	
PT				ES 2.10 m CBH05-2.0 PID 2.10 m	116.2 ppm	- 2.0		CI- CH	1.60m Sandy CLAY: medium to high plasticity, m brown / grey / red / orange, fine to medium sand, with interbedded coarse grained san gravels and cobbles, slight hydrocarbon o observed	notted n grained Indstone Idour (fuel)	M to W			
				ES 3.10 m		- - 2.5 - - - - - 3.0 -		СН	2.50m Sandy CLAY: high plasticity, white with tra- fine to medium grained sand, with interbec coarse grained sandstone gravels and co slight hydrocarbon odour (fuel) observed	ice red, dded bbbles,	м			
				CBH05-3.0 PID 3.10 m	11.3 ppm	+	<u> </u>	1	3.20m TERMINATED AT 3.20 m					
									Refusal on bedrock NOTE: Environmental sample labelling ind depth measured from first fill / soil contact	dicates t				
B AT-					DENETRATION			-						CONSISTENCY
EX R HA PT SO AD AD AD HF, WB RR	Ex Rij Ha PL N Sc Air Pe St V Sc V Sc V Sc V Sc V Sc V Sc V Sc V Sc	cavator pper and aug ish tub pnic dril hamm recussic ort spi blid fligh blid fligh blow fli ashbor pck rolle	r bucke e ling er on sam al aug nt aug ght aug e drillir er	et apler er Sr: V-Bit ger Ig or details of leventrian	VE Very Easy E Easy F Firm H Hard VH Very Hard (f WATER Water Water Water	No Resistar Refusal) Level or inflow outflow	Date		PT - Standard Penetration Test PT - Hand/Pocket Penetrometer CP - Dynamic Cone Penetrometer SP - Perth Sand Penetrometer IC - Moisture Content BT - Plate Bearing Test IP - Borehole Impression Test ID - Photoionisation Detector S - Vane Shear; P=Peak, R=Resdual (uncorrected kPa)	BANNIPLES B - Bulk C - Dist ES - Env U - Thin MOISTURE D - Dry M - Mois W - Wet PL - Plas LL - Liqu W - Mois	disturbed sa ironment wall tub stic limit id limit sture con	ed sampl Imple al sampl e 'undist	le VS le F turbed' St VSt H REL VL L MD D VD	Very Soft     Soft     Soft     Firm     Stiff     Very Stiff     Very Stiff     Hard     Atve DeNSITY     Very Loose     Loose     Medium Dense     Dense     Very Dense

5	$\square$	C	arc	Ino								В	ORE	EHOLE LOG SHEET
Clie Proj Loc	ent: ject: atio	ר <b>ר</b> n: 7	rfNS 1/6 S 7-Ele	W tage 1 Co ven Koga	ntamination I rah	nvesti	gation			Job No: NE30054			Hc	Sheet: 1 of 1
Pos	itior	: Ref	er to	Appendi	x A - Figure 3			Angle from Horizontal: 90°				5	Surfac	e Elevation:
Rig	Тур	e: Ge	opro	obe 7822c	lt			Mounting: Track Driller: MB					: MB	
Cas	ing	Diam	eter:									0	Contra	ctor: Matrix Drilling
Data	a Sta	arted:	3/8/	20	Date Con	nplete	d: 3/8/	20		Logged By: CL		(	Check	ed By: CC
	Drillin	g		Sampl	ing & Testing	_				Materia	al Description			1
Method	Resistance	Casing	Water	S	ample or ield Test	Depth (m)	Graphic Log	Classification	s	DIL TYPE, plasticity or particle cha colour, secondary and minor com ROCK TYPE, grain size and type fabric & texture, strength, weath defects and structure	aracteristic, ponents , colour, nering,	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations
						-			0.20m	CONCRETE: medium to coarse, poo grey, no odour observed, hard	rly graded,	D		PAVEMENT 0.00 m: Concrete corer used to drill hole through concrete.
				ES 0.20 - 0 CBH06-0.0 CBH06-0.0 PID 0.25 m	25 m 5-0.1 & 5-0.1-A 0.2 ppm	-0.5	<b>z</b> 0 0 0 0 0 0 0 0 0 0 0 0 0	•	0.2011	FILL: Gravelly SAND: fine to coarse g graded, brown / grey, coarse grained coarse grained cobbles, no odour ob to medium dense	grained, poorly gravel, with served, loose			FILL 0.20 m: Asphalt, brick, a steel brace, synthetic fibre material and a bonded ACM fragment observed 0.30 m: Services present at approximately 300mm, hole moved 100mm exit busct
— HA				ES 0.70 m CBH06-0.5 PID 0.70 m	0.3 ppm	-		. SP	1.00m			м		
				ES 1.20 m CBH06-1.0 PID 1.20 m	1.2 ppm	- 1.0 - - -		CI- CH		FILL: Sandy CLAY: medium to high pl red / orange, fine to medium grained a interbedded coarse grained sandston cobbles, no odour observed	asticity, grey / sand, with ne gravels and	м		
						- 1.5			1.50m		rly graded	D to M		PAVEMENT
				ES 1.70 m CBH06-1.5		-		CI- CH	1.60m	grey, no odcur observed, hard FILL: Sandy CLAY: medium to high pl / orange, fine to medium grained sand interbedded coarse grained sandston	lasticity, brown d, with ne gravels and	M to W		1.50 m: Not enough material present to sample FILL
				PID 1.70 m	1.3 ppm				2.00m	ROAD BASE AGGREGATE: medium poorly graded, black, slight hydrocarb observed, dense	n to coarse, ion odour (fuel)	w		material, not enough material present to sample RESIDUAL SOIL
				ES 2.20 m CBH06-2.0 PID 2.20 m	1590 ppm	2.5		СН	2.70m	Sandy CLAY: high plasticity, grey, the grained sand, with coarse grained sand gravel, with coarse grained sandstond strong hydrocarbon odour (fuel) obse	e to medium ndstone e cobbles, rived	M to W		
- Tq				ES 3.20 m CBH06-3.0 PID 3.20 m	230.2 ppm	- - - 3.0 - - - - - - 3.5 -		СН		CLAY: high plasticity, mottled grey / or red, with coarse grained sandstone g coarse grained sandstone cobbles, s hydrocarbon odour (fuel) observed	range / brown / ravel, with trong	м		
				ES 4.20 m		- 		СН	3.80m	Sandy CLAY: high plasticity, white with fine to medium grained sand, with coa sandstone gravel, slight hydrocarbon observed	h trace red, arse grained odour (fuel)	м		
F				CBH06-4.0 PID 4.20 m	10.7 ppm	1		1		TERMINATED AT 4.30 m				
										NOTE: Environmental sample labelling	g indicates			
ME EX HA PT SO AH PS AS AD	METHOD     PENETRATION       EX     Excavator bucket     VE     Very Easy (No Resistance)       R     Ripper     E     Easy       HA     Hand auger     F     Firm       PT     Push tube     H     Hand       SON     Sonic drilling     VH     Very Hard (Refusal)       AH     Air hammer     VH     Very Hard (Refusal)       PS     Percussion sampler     AS     Short spiral auger: V-Bit.       AD/V     Solid flight auger: V-Bit.     Shown     Shown				FSHDP PM P	IELD TE PT - IP - OCP - PSP - MC - PBT - MP - PID - (S	Standard Penetration Test III's off con- Standard Penetrometer Dynamic Cone Penetrometer Perth Sand Penetrometer Moisture Content Plate Bearing Test Borehole Impression Test Photoionisation Detector Vane Shear: P=Peak	B - Bul D - Dis ES - Env U - Thi MOISTURE D - Dry M - Moi W - We PL - Pla	k disturbe turbed sa <i>i</i> ronment n wall tub st t stic limit	ed sampl mple al sampl se 'undist	le VS - Very Soft S - Soft turbed' St - Stiff VSt - Stiff VSt - Stiff H - Hard <b>RELATIVE DENSITY</b> VL - Very Loose L - Loose			
RR RR	er to ex	planatory	e drilli er notes	gei ng for details of descriptions	water of	outflow	CAF			R=Resdual (uncorrected kPa)	LL - Liq w - Moi	uid limit isture con	itent	D - Dense VD - Very Dense

lier roje oca		-	arc	lno					В	ORE	EHOLE LOG SHEET	
oca	nt:	T	fNS	N age 1 Contamin	ation Investi	nation				Hc	ole No: CBH07	
_	tion	: 7	-Ele	ven Kogarah		gation		Job No: NE30054			Sheet: 1 of 1	
osi	tion:	Refe	er to	Appendix A - Fi	gure 3			Angle from Horizontal: 90°	Surface Elevation:			
ig 1 aci	ype:	: Ge	opro	be 7822dt				Mounting: Track	Driller: MB			
asi ata	Star	rted:	3/8/2	20 Da	te Complete	d: 3/8/	20	Logged By: CL	Contractor: Matrix Drilling Checked By: CC			
D	rilling			Sampling & Tes	sting		-	Material Description				
	Resistance	Casing	Water	Sample or Field Test	Depth (m)	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations	
3							-	CONCRETE: medium to coarse, poorly graded,	D		PAVEMENT	
				ES 0.10 - 0.15 m CBH07-0.05-0.1 PID 0.15 m 2 ppm			sw	grey, no odour observed, hard FILL: SAND: fine to medium grained, well graded, yellow / brown, with coarse grained gravel, no odour observed, loose	м		hole through concrete.	
					-			0.40m 0.45m CONCRETE: medium to coarse, poorly graded	D		PAVEMENT	
				ES 0.60 m CBH07-0.5 PID 0.60 m 3.6 ppm	0.5 - - - -		sc	grey, no odour observed, hard	м		0.40 m: Not enough material present to sample FILL 0.45 m: Trace asphalt, ceramics and concrete observed	
				ES 1.10 m CBH07-1.0 PID 1.10 m 3.4 ppm	1.0 - - -			1.00m Sandy CLAY: medium to high plasticity, brown with mottled orange / red, fine to medium grained sand, with coarse grained sandstone gravel, with coarse grained sandstone cobbles, no odour observed			RESIDUAL SOIL	
					- 1.5		CI- CH		м			
				ES 2.10 m CBH07-2.0 PID 2.10 m 46.4 ppm	- 2.0			1.90m Sandy CLAY: high plasticity, white / red / orange, fine to medium grained sand, with coarse grained sandstone gravel, with coarse grained sandstone cobbles, slight hydrocarbon odour (fuel) observed				
					- - 2.5 - - - - 3.0		СН		M to W			
				ES 3.10 m CBH07-3.0				TERMINATED AT 3.10 m				
				PID 3.10 m 3.8 ppm	- - - 3.5 -			NOTE: Environmental sample labelling indicates depth measured from first fill / soil contact			-	
					- - - 4.0							
					-							
	METHOD       PENETRATION         EX       Excavator bucket         R       Ripper         HA       Hand auger         PT       Push tube         SON       Sonic drilling         AH       Air hammer         PS       Percussion sampler         AS       Short spiral auger: V-Bit         AD/V       Solid flight auger: V-Bit         AD/T       Solid flight auger: TC-Bit         HFA       Hollow flight auger: WB         Washbore drilling       RR         RR       Rock roller				F	IELD TESTS SAMPLES			SOIL CONSISTENCY			
		THOD			ES 2.10 m CBH07-2.0 PID 2.10 m 46.4 ppm PID 2.10 m 46.4 ppm CBH07-3.0 PID 3.10 m 3.8 ppm	-1.5         -1.5         -1.5         -2.0         ES 2.10 m         CBH07-2.0         PID 2.10 m 46.4 ppm         -2.5         -3.0         ES 3.10 m         CBH07-3.0         PID 3.10 m 3.8 ppm         -3.5         -4.0         -4.0         -1.5	ES 2.10 m CBH07-2.0 PID 2.10 m 46.4 ppm       -2.0         -2.5       -2.5         -3.0       -3.0         ES 3.10 m CBH07-3.0 PID 3.10 m 3.8 ppm       -3.5         -3.5       -4.0         -4.0       -4.0	ES 2.10 m CBH07-2.0 PID 2.10 m 46.4 ppm       -2.0       -2.0         -2.5       CH         -2.5       CH         -3.0       -3.0         ES 3.10 m CBH07-3.0 PID 3.10 m 3.8 ppm       -3.5         -3.5       -3.5         -4.0       -4.0         -4.0       -4.0	Image: Characterization of the second sec	Ch         Ch         M           -1.5         CH         190m	ES 2.10 m CBH07-2.0 PID 2.10 m 46.4 ppm         Sandy CLAY. high plasticity, while / red / orange, fine to medium grained sand, with coarse grained sandstone gravel, with coarse grained sandstone cobbles, sight hydrocarton dotur (fue) observed         M           -2.0         -2.0         CH         Sandy CLAY. high plasticity, while / red / orange, sandstone gravel, with coarse grained sandstone gravel, with coarse gravel, with coarse sandstone gravel, with coarse gravel, with coarse gravel, with coarse sandstone gravel, with coarse gravel, with coarse sandstone gravel, with coarse gravel, with coarse sandstone gravel,	

		) C	arc	Ino						В	ORE	EHOLE LOG SHEET		
Clic Pro Loc	ent: ject: catio	: 1 n: 7	rfns M6 S 7-Ele	W tage 1 Co ven Koga	ontamination I	nvesti	gation		Job No: NE30054		Нс	Die No: CBH08 Sheet: 1 of 1		
Pos	sitio	n: Ref	er to	Appendi	x A - Figure 3				Angle from Horizontal: 90°	Surface Elevation:				
Rig	Тур	e: Ge	opro	obe 78220	lt				Mounting: Track	[	Driller: MB			
Cas	sing	Diam	eter:							(	Contra	ctor: Matrix Drilling		
Dat	a St	arted:	3/8/	20	Date Cor	nplete	d: 3/8/	20	Logged By: CL	(	Check	ed By: CC		
	Drillir	ng T		Samp	ling & Testing				Material Description	1	1			
Method	Resistance	Casing	Water	S F	ample or ield Test	Depth (m	Graphic Log	Classification	SOIL TYPE, plasticity or particle characteristic, colour, secondary and minor components ROCK TYPE, grain size and type, colour, fabric & texture, strength, weathering, defects and structure	Moisture Condition	Consistency Relative Density	STRUCTURE & Other Observations		
С							· <i>P</i> E		CONCRETE: medium to coarse, poorly graded,	D		PAVEMENT		
				ES 0.10 - 0 CBH08-0.0	.15 m 5-0.1	7	0.0		FILL: Sandy GRAVEL: fine to coarse, gap graded,		1	hole through concrete.		
				PID 0.15 m	5.4 ppm	-	00	.sw	dark grey / grey, fine to medium grained sand, no odour observed, medium dense to loose	м		0.10 m: Trace asphalt and concrete		
						-		_	0.40m CONCRETE: medium to coarse, poorly graded		-	PAVEMENT		
						-0.5	1.1.1	<u>}                                    </u>	0.50m grey, no odour observed, hard			0.40 m: Not enough material present		
HH				ES 0.60 m CBH08-0.5 PID 0.60 m	4.5 ppm			CI- CH	FILL: Sandy CLAY: medium to high plasticity, red / white / orange, fine to medium grained sand, with coarse grained sandstone gravel, with coarse grained sandstone cobbles, no odour observed 0.90m	м		FILL .		
						10			Gravelly Sandy CLAY: medium plasticity, red / grey /		1	RESIDUAL SOIL		
X	_			ES 1.10 m CBH08-1.0 PID 1.10 m	102.3 ppm	-		CI	grained sandstone gravel, strong hydrocarbon odour (fuel)	M to W		1.00 m: Inflow of water - strong hydrocarbon odour		
						- 1.5			1.60m			-		
						-			Sandy CLAY: medium to high plasticity, mottled grey / brown / red / orange, fine to medium grained sand, with coarse grained sandstone gravel, strong					
oring Tools						- 2.0			hydrocarbon odour (fuel)					
Photo, Mon				ES 2.10 m CBH08-2.0 PID 2.10 m	92.1 ppm	Ē		CI- CH		м				
el AGS KI A						- 2.5						-		
1.07 Datg				ES 2.70 m					2.70m TERMINATED AT 2.70 m					
0.00.01 86:3				CBH08-2.6 PID 2.70 m	49.3 ppm	-			Refusal on bedrock NOTE: Environmental sample labelling indicates depth measured from first fill / soil contact					
8/2020 15						-								
0//0						-								
< UrawingF						- 3.5						-		
<ul> <li>L4D. 11</li> </ul>						ŀ								
NI AM - 7						40								
00.8						-								
- to						F						-		
ED NE300						ŀ								
	 ETHOI	 >			PENETRATION		1	F	IELD TESTS SAMPLES			SOIL CONSISTENCY		
E R H PI S A CARDNO NON-	C E R A H DN S A A	xcavato lipper land aug ush tub onic dril ir hamm	r buck ger e ling ier	et	VE Very Easy E Easy F Firm H Hard VH Very Hard (f	No Resistar Refusal)	nce)	S H D P N	PT - Standard Penetration Test P - Hand/Pocket Penetrometer CP - Dynamic Cone Penetrometer SP - Perth Sand Penetrometer C - Moisture Content D - Di ES - Er U - Tr MOISTURE	Ik disturbe sturbed sa ivironment in wall tub	ed sampl mple al sampl be 'undis'	le VS - Very Soft S - Soft le F - Firm VSt - Stiff VSt - Very Stiff H - Hard		
	5 S 5)/V S 5)/T S 5)/T S 5A H B V R R R	olid flig olid flig olid flig olid flig oliow fli ollow fli ock roll	ral aug nt aug nt aug ght au e drilli er	ger er: V-Bit er: TC-Bit ger ng	Water shown water water	Level or inflow outflow	i Date	P P V	DI     - Plate bearing lest     D     - Dr       MP     - Borehole Impression Test     M     - Mr       ID     - Photoionisation Detector     W     - W       S     - Vane Shear; P=Peak, R=Resdual (uncorrected kPa)     PL     - PI	y pist astic limit quid limit pisture con	itent	RELATIVE DENSITY         VL       -       Very Loose         L       -       Loose         MD       -       Medium Dense         D       -       Dense         VD       -       Very Dense		
Re abl	Refer to explanatory notes for details of abbreviations and basis of descriptions CARDNO (NSW/ACT) PTY LTD													

Appendix D: Data Quality Objectives & Indicators

### DATA QUALITY OBJECTIVES

### Step 1 – State the Problem

CGU are proposing to construct a Construction Ancillary Facility in the short term and a slip lane (road widening) and commercial land use in the long-term at the site. Contaminated soil is present in fill and residual soils which poses a potentially unacceptable risk to human health without remediation or adequate management measures in place. The contaminated soil is proposed to be excavated and disposed off-site to make the site suitable for the intended use. Contamination has migrated off-site in groundwater that may require long-term monitoring/management. The site has been declared significantly contaminated by the NSW EPA and remediation works are required to reduce potential environmental risk. The site requires remediation so that a Section A1 site audit statement (SAS) can be issued prior to completion of the project. The declaration status of the site may be rescinded by EPA on review of the remediation outcome.

### Step 2 - Identify the Decisions

The decisions to be made based for validation will be as follows:

- Has the hydrocarbon contaminated soil been excavated and disposed off-site, such that potential unacceptable risks to human health are appropriately managed following redevelopment?
- Have the areas beneath the building been adequately assessed and validated?
- Has the groundwater plume been delineated off-site to the north and associated risks (if any) adequately assessed and acceptable?
- Has the previously assessed acceptable soil vapour risk to neighbouring residential receptors immediately
  north of the site been confirmed?
- Has imported material been validated as suitable for the proposed land use?
- Have surplus materials, if any, removed from site been disposed to a landfill lawfully licenced to receive such material?
- Have the remediation works been adequately completed to enable the Declaration to be rescinded and a Section A1 SAS to be issued prior to completion of the project?

### Step 3 - Identify Inputs in the Decision

The inputs required to make the above decisions will be as follows:

- Information from a Site Contamination Report outlining the nature and extent of contaminated soils, groundwater and associated soil vapour requiring remediation or further assessment.
- Soil validation sampling.
- Monitoring well installation off-site to the north to assess extent of groundwater plume.
- Soil vapour sampling to confirm the acceptable risk from vapour intrusion into the neighbouring residential apartments.
- Visual observations during remediation works.
- Photographs.
- VENM/ENM certificates for imported materials.
- Laboratory analytical results.
- Waste disposal dockets and waste tracking records where applicable.

### Step 4 - Define Boundaries of the Study

The spatial boundary of the management and validation works is the lot boundaries as shown on the figures attached. Off-site delineation of the plume will define the boundary of the groundwater contamination. The vertical boundary is top of competent bedrock (that is, refusal of a mechanical auger or excavator bucket).

### Step 5 - Develop a Decision Rule

Contaminated soil that poses a potentially unacceptable risk to site users will be excavated and disposed off-site. Excavation will continue, to the extent practicable, until concentrations are at an acceptable level, confirmed via validation sampling and analysis.

Monitoring well installation/s, sampling and analysis will delineate the groundwater plume off-site to the north. An assessment of potential risk to off-site receptors will be completed and remediation or management implemented where unacceptable risks are identified.

Soil vapour sampling and analysis will confirm the acceptable vapour intrusion risk from hydrocarbon impacted groundwater beneath the lower ground floor of neighbouring residential apartments immediately north of the site.

Imported soil used to backfill excavations will be validated for site use.

If disposal dockets are not provided by the earthworks contractor, then the landfill will be contacted directly for assistance.

If the quality control (QC) results meet the data quality indicators (DQI), then the analytical data is considered suitable and reliable for the purpose of the contamination investigations.

### Step 6 - Specify the performance or acceptance criteria

There are two types of decision errors:

- Sampling errors, which occur when the samples collected are not representative of the conditions within the investigation area; and
- Measurement errors, which occur during sample collection, handling, preparation, analysis and data reduction.

The null hypothesis, which is an assumption assumed to be true in the absence of contrary evidence, for this validation assessment will be 'Hydrocarbon contaminated soil has not been effectively excavated and disposed off-site and therefore the site is not suitable for use.'

These errors may lead to the following decision errors:

- Type I error Rejecting the hypothesis as false when it is really true: Deciding that validation of hydrocarbon impacted soil has occurred when the reverse is true; and
- Type II error Accepting the hypothesis as true when it is really false: Deciding that validation of hydrocarbon impacted soil has not occurred when the reverse is true.

An assessment will be made as to the likelihood of a decision error being made based on the results of a QA/QC assessment and the closeness of the data to assessment criteria. Additionally, statistical methods such as 95% Upper Confidence Limit (UCL) calculations may be utilised, where applicable.

The acceptable limits on decision errors applied during this investigation and the manner of addressing possible decision errors were developed based on the data quality indicators (DQIs) of:

- Accuracy: a quantitative measure of the closeness of reported data to the true value;
- Comparability: a qualitative parameter expressing the confidence with which one (1) data set can be compared with another;
- Completeness: a measure of the amount of useable data (expressed as %) from a data collection activity;
- Representativeness: the confidence (expressed qualitatively) that data are representative of each media present on the site; and
- Precision: a quantitative measure of the variability (or reproducibility) of data.

### Step 7 - Optimise the Design

The purpose of this step is to identify a resource-effective data collection design for generating data that satisfies the DQOs.

To ensure the design satisfied the DQOs, DQIs (for accuracy, comparability, completeness, precision and reproducibility) have been established to set acceptance limits on field methodologies and laboratory data collected.

### DATA QUALITY INDICATORS

A summary of the field and laboratory DQIs for the validation assessment are provided in the table below.

### Summary of DQIs

Field Considerations	Laboratory Considerations	Comments			
	Accuracy (bias)				
Are SOPs appropriate and	Analysis of:	Bias introduced:			
complied with? Has sampling equipment been	Trip blanks;	By chemicals during handling or transport;			
calibrated?	Rinsate blanks;	From contaminated equipment;			
	Reagent blanks;	From contaminated reagent;			
	Method blanks;	During laboratory analysis;			
	Matrix spikes;	During laboratory preparation and analysis (may be high or low);			
	Surrogate spikes;	During laboratory preparation and analysis (may be high or low);			
	Reference material;	Precision of preparation of analytical method;			
	Laboratory control samples;	Precision of preparation of analytical method;			
	Comparability				
Number of sampling rounds Same methodologies and SOPs used on each occasion. Experienced sampler and same sampler. Climatic conditions (temperature, rainfall, wind). Same types of samples collected (filtered, size fractions).	Sample analytical methods used (including clean-up). Laboratory practical quantification limits (PQL) or limit of reporting (LOR) (justify /quantify if different). Same laboratories (justify /quantify if different). Same units (justify /quantify if different).	Same approach to sampling (WIs, holding times). Quantify influence from climatic or physical conditions. Samples collected, preserved, handled in same manner (filtered, same containers).			

Field Considerations	Laboratory Considerations	Comments				
	Completeness					
Critical locations sampled. Critical depths sampled.	Critical samples analysed in accordance with the RAP.	The required percentage completeness should be specified in the scope of works.				
SOPs appropriate and complied with. Experienced sampler.	Analytes sampled in accordance with scope of works. Appropriate methods and	Required data must be obtained from critical samples and CoPC. Incompleteness is influenced by:				
Documentation correct including COCs.	PQL/LORs. Sample documentation	Field performance problems (access problems, difficulties on site, damage);				
	correct.	Laboratory performance problems (Matrix interference, invalid holding times); and				
	complied with.	Matrix problems.				
	Representativenes	S				
Appropriate media sampled according to the field program.	Samples analysed according to the RAP.	Samples must be collected to reflect characteristics of each medium.				
Media in the field program sampled.		Sample analysis must reflect properties of field samples.				
Samples properly and adequately preserved		Homogeneity of the samples.				
Samples in proper custody		and preservation.				
the laboratory		Detection of laboratory artefacts, e.g. contamination blanks.				
	Precision					
Field program appropriate and	Analysis of:					
	Laboratory and inter- laboratory duplicates; and	Measured by the coefficient of variance or standard deviation of the mean or Relative Percent Difference (RPD).				
	Field duplicates.	Field duplicates measure field and laboratory precision Difference (RPD) calculations.				
		Variation in RPDs can be expected to be higher for organics, low concentrations (<5 x laboratory PQL/LOR) or non- homogenous samples.				

Acceptable limits adopted for data quality indicators for this assessment are outlined in the table below.

### Acceptable Limits

Item	Acceptable Limit
Analysis of blind (intra- laboratory) duplicates and split (inter-laboratory) duplicates.	<ul> <li>Rate of 1:10 (10%) duplicate soil samples for the same analysis of primary samples;</li> <li>Calculation of RPDs between primary and duplicate samples. RPD results for soil samples:</li> <li>50% (where the average concentration is 10-20 x laboratory PQL/LOR); and</li> <li>30% (where the average concentration is &gt; 20 x laboratory PQL/LOR).</li> <li>RPDs will be considered where a concentration is greater than 10 times the PQL/LOR</li> </ul>
	FQL/LON.
Analysis of rinsate blanks	Rate of one (1) per equipment item per day of use; and
	Results less than the laboratory PQL/LOR.
Analysis of laboratory prepared trip blanks	Rate of one (1) sample per batch for soil samples where volatiles are analysed; and
	Results less than the laboratory PQL/LOR.
Analysis of laboratory prepared trip spikes	Rate of one (1) sample per batch for soil samples where volatiles are analysed; and Results within 60-120% recovery.
Analysis of laboratory blanks, surrogates, reference and control samples	The laboratories will be required to conduct their own internal quality program for assessment of the repeatability of the analytical procedures and instrument accuracy under their NATA accreditation. This will include analysis of laboratory blank samples, duplicate samples, spike samples, control samples and surrogate spikes. The laboratory QA/QC procedures and results will be described within the laboratory reports. The laboratory internal QA/QC sample results will be reviewed for comparison with the laboratory's NATA guidelines and Schedule B3 of ASC NEPM 2013.
Laboratories and methods used	National Association of Testing Authorities accredited for the method. Methods should be in accordance with amended ASC NEPM.
Holding times	Samples should be analysed within recommended holding times.
Sample PQL/LORs	Results less than the adopted assessment criteria; justify/quantify if different.

Appendix E: Final Declaration of Significantly Contaminated Land

### Declaration of significantly contaminated land

Section 11 of the Contaminated Land Management Act 1997

### Declaration No. 20211101; Area No. 3478

The Environment Protection Authority (EPA) declares the following land to be significantly contaminated land under s 11 of the *Contaminated Land Management Act* 1997 (Act).

### Land to which this Declaration applies

- 1. This Declaration applies to significantly contaminated land described as 734 Princes Highway, Kogarah NSW 2217, within the local government area of Bayside Council (the Land).
- 2. The Land is described as Lot 2 in Deposited Plan (DP) 659366, Lot 2 in DP659367 and Lot 1 in DP659365.
- 3. A map of the Land is <u>attached</u> to this Declaration.

### Significant Contaminants affecting the Land

- 4. The EPA has reason to believe that the Land is contaminated with the following substances (Significant Contaminants) in such a way as to warrant regulation as significantly contaminated land under the Act:
  - (i) Petroleum hydrocarbons (mainly diesel products); and
  - (ii) Benzene.

### Nature of harm caused, or that may be caused, by the Significant Contaminants

- 5. The EPA has reason to believe harm has been, or may be, caused by the Significant Contaminants, including:
  - (i) Petroleum hydrocarbons and benzene have impacted soil and groundwater beneath the Land as a result of loss of fuel from the underground petroleum storage system (UPSS) associated with former service station operations.
  - (ii) Potential harm may be caused by the off-site migration of the contamination to human health or the environment.

### Matters considered before declaring the Land to be significantly contaminated land

- 6. Before making this Declaration, the EPA has taken into account relevant guidelines and each of the matters listed in s 12(1) of the Act with respect to the Significant Contaminants that the EPA believes cause the Land to be contaminated.
- 7. The EPA believes that the Land is contaminated, and that the contamination is significant enough to warrant regulation under the Act for the following reasons.
- Soil and groundwater beneath the Land are contaminated with petroleum hydrocarbons from the former operation of the service station. The contamination has migrated beyond the boundaries of the Land.
- The contaminants have been identified to the north of the Land in groundwater and soil vapour at concentrations which are increasing, and in excess of criteria which is protective of human health.
- Although modelling has shown that the concentrations of volatile petroleum hydrocarbons beneath the adjacent residential apartment building are unlikely to pose an unacceptable risk to the occupants through inhalation, further investigation and confirmation is required.
- There are potential vapour inhalation and direct contact risks to those performing subsurface works or accessing underground utilities nearby the site.

• Further assessment is required to better understand the extent of the contamination to the north of the Land, and the potential risks to off-site receptors over the extent of the groundwater plume. Management may be required to prevent the further migration of contamination from the Land and to address any identified off-site risks.

### Further action to carry out voluntary management under the Act

8. The making of this Declaration does not prevent the carrying out of voluntary management of the Land by any person. Any person may submit a Voluntary Management Proposal for the Land to the EPA.

### Submissions invited

- 9. Any person may make a written submission to the EPA on:
  - whether the EPA should issue a management order in relation to the Land; or
  - any other matter concerning the Land.

10. Submissions should be made in writing and sent to:

Email RegOps.MetroRegulation@epa.nsw.gov.au

or

- Post Director Regulatory Operations NSW Environment Protection Authority Locked Bag 5022 PARRAMATTA NSW 2124
- 11. Submissions should be made by no later than **5:00pm on 4 August 2021.**
- 12. Information on contaminated land management can be found on the EPA's website at: <u>www.epa.nsw.gov.au/your-environment/contaminated-land</u>

[signed 7 July 2021]

### JACINTA HANEMANN Director Regulatory Operations (by delegation)

Date of this Declaration: 7 July 2021

### Further information about this Declaration

### Management Order may follow

If management of the Land or part of the Land is required, the EPA may issue a Management Order under s 14 of the Act.

### Amendment or Repeal

This declaration may be amended or repealed. It remains in force until it is otherwise amended or repealed. The subsequent declaration must state the reasons for the amendment or repeal (s 44 of the Act).

### Information recorded by the EPA

Section 58 of the Act requires the EPA to maintain a public record. A copy of this significantly contaminated land declaration will be included in the public record and is available for access at the principal office of the EPA and on the EPA's website.

### Information recorded by Councils

Section 59(a) of the Act requires the EPA to inform the relevant local Council as soon as practicable of this Declaration. Pursuant to s 59(2)(a) of the Act, land being declared to be significantly contaminated land is a prescribed matter to be specified in a planning certificate issued pursuant to s 10.7 of the *Environmental Planning and Assessment Act 1979*. The EPA is also required to inform the relevant Council as soon as practicable when the declaration is no longer in force. Pursuant to s 59(3) of the *Contaminated Land Management Act 1997*, if a Council

includes advice in a planning certificate regarding a declaration of significantly contaminated land that is no longer in force, the Council is to make it clear on the planning certificate that the declaration no longer applies.

### Relationship to other regulatory instruments

This Declaration does not affect the provisions of any relevant environmental planning instruments which apply to the land or provisions of any other environmental protection legislation administered by the EPA.



The Land to which this Declaration applies is shown shaded and bounded in blue, and identified as Lot 2 In DP659366, Lot 2 in DP659367 and Lot 1 in DP659365. The original image was sourced from <u>Designan</u>.