REMEDIATION ACTION PLAN

11-13 Percy Street
Auburn NSW 2144

Fabcot Pty Ltd – February 2021

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REMEDIATION ACTION PLAN

11-13 Percy Street
Auburn, NSW 2144

PREPARED FOR

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EXECUTIVE SUMMARY

Geo-Logix Pty Ltd (Geo-Logix) was engaged by Fabcot Pty Ltd (Fabcot) to prepare a Remediation Action Plan (RAP) for the property located at 11-13 Percy Street, Auburn, NSW 2144. Fabcot intends to redevelop the site as a Customer Fulfilment Centre (CFC). Under the proposed development the western portion of the building would be constructed as slab on grade, and the eastern portion as suspended slab above the floodway area of the adjacent Haslams Creek.

Environmental investigations by Geo-Logix in 2019 and 2020 identified the following conditions requiring remediation and / or management for the site to be considered suitable for commercial development:

- Bonded Asbestos Containing Material (ACM) fragments on the ground surface in the southeast portion of the site an along the edge of the northern access driveway;
- Building material and a pit filled with rubbish that may contain ACM in the southeast portion of the site;
- A potential Underground Storage Tank in the central portion of the site that has not been decommissioned; and
- Trichloroethylene (TCE) and its degradant products cis-1,2-Dichloroethene (cis-DCE) and Vinyl Chloride (VC) in groundwater and soil vapour in the eastern portion of the site.

The RAP provides the health and safety procedures and environmental management procedures required to remediate the site in a manner which protects public health and the environment. The RAP also outlines remediation acceptance criteria (RAC) and sampling strategies required to validate the site suitable for the proposed Customer Fulfilment Centre redevelopment.

The proposed remedial approach comprises the following:

- Hand pick and off-site disposal of bonded ACM fragments on the ground surface in the southeast portion of the site, and disposal of rubbish and stockpiled building materials potentially impacted by ACM;
- Excavation and off-site disposal of bonded ACM impacted soil on the edge of the northern access driveway;
- Decommissioning, removal and off-site disposal of the UST, if present; and
- Management of potential trench worker exposure to TCE and its degradant products through construction phase and operation phase Environmental Management Plans.

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1. INTRODUCTION

Geo-Logix Pty Ltd (Geo-Logix) was engaged by Fabcot Pty Ltd (Fabcot) to prepare a Remediation Action Plan (RAP) for the property located at 11-13 Percy Street, Auburn, NSW 2144 (Figure 1). Fabcot intends to redevelopment as a Customer Fulfilment Centre (CFC). Under the proposed development the western portion of the building would be constructed as slab on grade, and the eastern portion as suspended slab above the floodway area of the adjacent Haslams Creek.

Environmental investigations by Geo-Logix in 2019 and 2020 identified the following conditions requiring remediation and / or management for the site to be considered suitable for commercial development:

- Bonded Asbestos Containing Material fragments on the ground surface in the southeast portion of the site an along the edge of the northern access driveway;
- Building material and a pit filled with rubbish that may contain ACM in the southeast portion of the site;
- A potential Underground Storage Tank (UST) in the central portion of the site that has not been decommissioned; and
- Trichloroethylene (TCE) and its degradant products cis-1,2-Dichloroethene (cis-DCE) and Vinyl Chloride (VC) in groundwater and soil vapour in the eastern portion of the site.

The RAP provides the health and safety procedures and environmental management procedures required to remediate the site in a manner which protects public health and the environment. The RAP also outlines remediation acceptance criteria (RAC) and sampling strategies required to validate the site suitable for the proposed Customer Fulfilment Centre redevelopment.

This RAP has been prepared in accordance with the NSW EPA (2020) Consultants reporting on contaminated land: Contaminated Land Guidelines

2. PROPOSED DEVELOPMENT

The proposed development is for a single-story warehouse and distribution Customer Fulfilment Centre (CFC). The proposed warehouse occupies the majority of the site with truck parking to the west and staff parking to the south.

The eastern third of the building extends across the lower area of the site currently occupied by the building undercroft, car parking area and wash bay. The building across this area is proposed to be constructed with suspended slab. No filling of the lower area of the site is proposed.

The design plans are presented in Attachment A.

3. OBJECTIVE

The objectives of the RAP are to:

- Define Areas of Environmental Concern (AEC) and Contaminants of Potential Concern (COPC);
- Evaluate remedial options in consideration of site conditions, logistical constraints and commercial objectives;

- Define Data Quality Objectives (DQOs) and RAC to ensure the remediated site will be suitable for the proposed use and will not present an unacceptable risk of harm to human health or the environment;
- Define remediation procedures and methodologies;
- Define remediation validation methodology;
- Establish environmental safeguards so that remediation is undertaken in an environmentally acceptable manner; and
- Define Work Health and Safety (WHS) requirements to protect site workers undertaking site remediation.

4. SITE DESCRIPTION

4.1 Site Identification

The investigation area comprises the following property (Figure 2):

Street Address	Lot and Deposited Plan (DP)	Approximate Area (m^2)
11 Percy Street, Auburn, NSW 2144 13 Percy Street, Auburn, NSW 2144	Lot 1 DP 1183821 Lot 2 DP 1183821	32,500

4.2 Site Zoning and Land Use

The site is zoned *'General Industrial IN1'* under the Auburn Local Environment Plan, 2010.

4.3 Site Description

The following observations were made during site inspection and field works conducted by Geo-Logix in September 2019.

The subject site is located in a commercial/industrial area in Auburn NSW. The site comprises two rectangular shaped lots encompassing an area of approximately 3.25 Ha. The lots are bound by Percy Street to the northwest, Haslams Creek to the southeast and commercial/industrial on adjacent properties. Entry into the site is via two gates (North and South) from Percy Street.

At the time of the investigation Lot 1 was operating as Chameleon Touring Systems, a stage lighting and equipment supplier and Lot 2 as a Holden new vehicle accessories and auto detailing service centre. The front building (Lot 1) is located in the northwest portion of the site on the boundary with Percy Street. The building is constructed of metal cladding, a saw tooth roof and concrete floor slabs. The building is used for the storing and assembly of stage lighting equipment.

The back building (Lot 2) is located in the southeast portion of the site and is constructed on grade with Lot 1. Haslams Creek (concrete channel) is located on the southeast boundary. The building is constructed of brick, metal cladding and part of the building is on suspended concrete floor slabs with vehicle parking within the undercroft area.

The northeast portion of Lot 2 consists of a car ramp and concrete and bitumen paved car parking. The building is used for a variety of uses including vehicle washing/detailing, vehicle storage and shipping/receiving of goods.

The site consists of approximately 15% asphalt (east corner used for car parking), 10% grass (south corner and northwest boundary) and the remainder of the site (75%) concrete.

Scrap metal, building rubble and general rubbish was also noted in the undercroft parking area in the south of the site.

Decommissioned USTs are located on the mid point of the western boundary, and centrally in the site beneath the concrete driveway between the two buildings.

Fragments of bonded Asbestos Containing Material (ACM) were observed in localised pockets of soils on the northeast boundary along the north gate driveway, in the undercroft area on Lot 2 and on the south boundary next to Haslams Creek.

Site features are presented on Figure 2.

4.4 Surrounding Land Use

At the time of the investigation, the surrounding land use comprised the following:

- **Northwest** – Percy Street, with commercial / industrial properties including Icon Medical Supplies and residential properties beyond;
- **Northeast** – Commercial / industrial properties, Haslams Creek and Tooheys Brewery beyond;
- **Southeast** – Haslams Creek, with commercial/industrial properties including the previous Offset Alpine Printing beyond; and
- **Southwest** – Commercial/industrial properties.

4.5 Geology

Review of the NSW 1:100,000 Sydney Map (Geological Survey of NSW, 1983) indicates the majority of the site is underlain by Cenozoic age silty to peaty quartz sand, silt, and clay with occasional ferruginous and humic cementation. The western area of the site is underlain by Triassic age Ashfield shale of the Wianamatta Group comprising black to dark grey shale and laminate (Herbert, 1983).

Fill Material

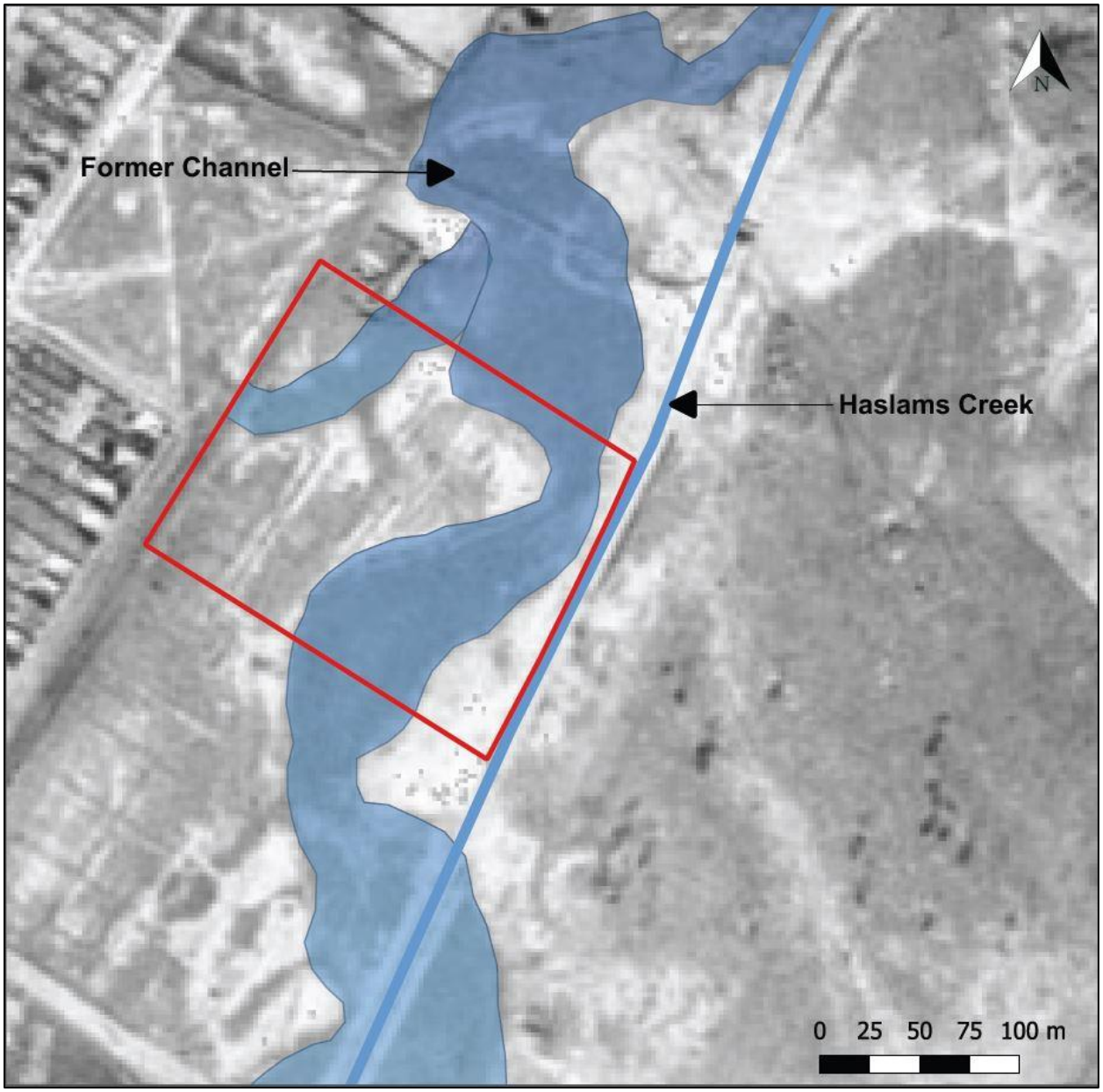
Fill material was encountered across the site to a maximum depth of 1.8m. The fill material generally consisted of shallow gravelly sands becoming sandy gravelly clay with depth. Anthropogenic material including bricks, ash and wire were observed in fill in MW107. A bituminous odour was noted in shallow soil at locations MW103, MW106 and MW107. Fragments of bonded Asbestos Containing Material (ACM) were observed in shallow fill (maximum depth of 0.3m) and surface soils in localised pockets across the site.

Fill material generally overlie sandy clay or clayey sand. Peat was identified in two locations, MW105 and MW111, at depths of 0.70 and 3.7 mbg, respectively.

Channel Infill Sediments

Alluvial sediments comprising interbedded layers of mixed of sand, silts and clays with occasional peat layers were identified across the eastern and central portion of the site. The sediments are up to 7 metres deep and originate from infill of the former channel of Haslams Creek. The former creek alignment is from south to north and is clearly visible on the 1943 aerial photograph taken prior to development of the site as presented below:

Image 1: Former Channel of Haslams Creek



The sediments are likely to have resulted from a low to moderate energy depositional environment and are Holocene in age. Results of MiHPT drilling indicated considerable variation in hydraulic conductivity of the sediment both vertically throughout the profile and laterally between borings.

Residual Clays

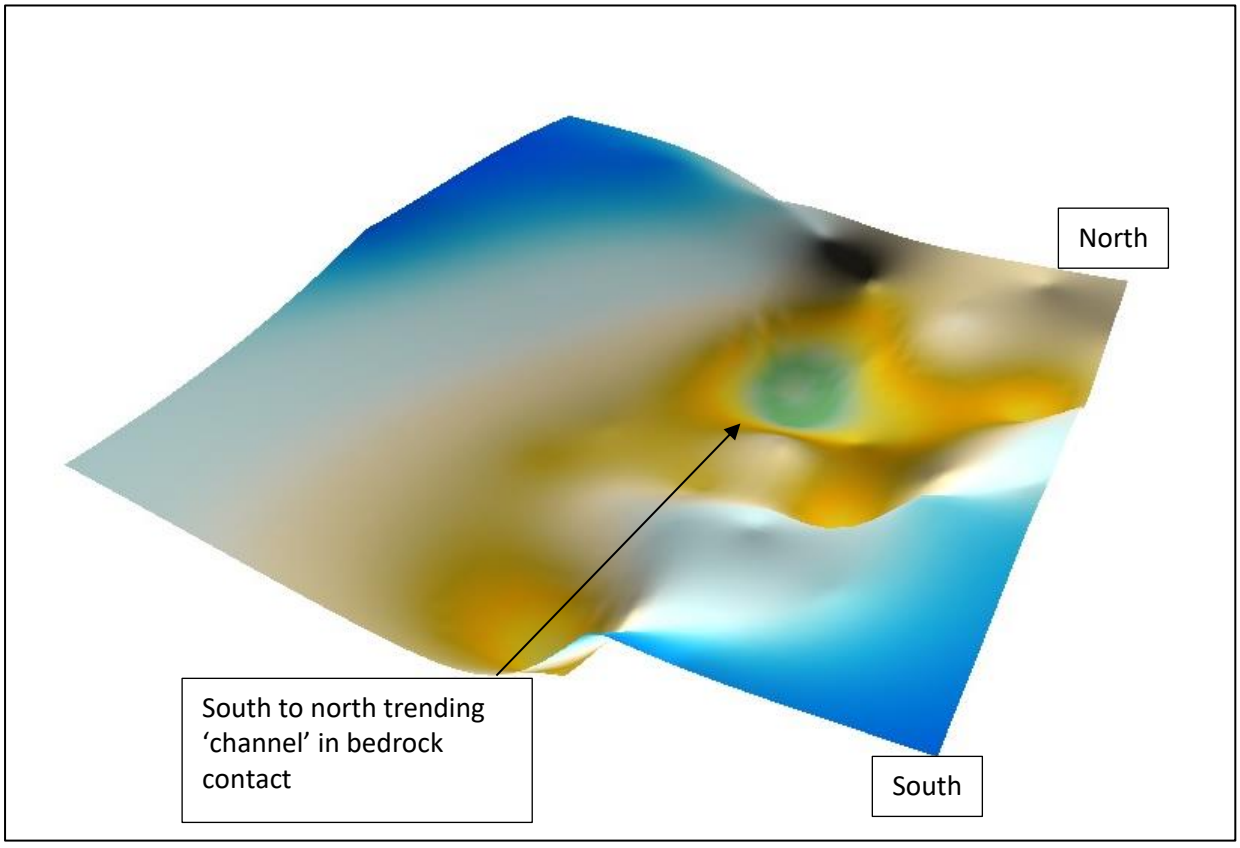
Drilling results indicate the creek sediments overly residual clays which grade into Ashfield Shale bedrock, or grade directly into shale bedrock.

Residual clays and possible colluvium are located to the southeast and west of the alluvial deposit.

Shale Bedrock

Alluvial sediments and residual clays are underlain by Ashfield Shale bedrock. Based on refusal depths of MiHPT borings and V bit refusal, a pronounced south to north oriented 'channel' in the bedrock contact is evident through the centre of the site. The depression mirrors the former channel location and is likely to be an erosional feature of the old creek bed. A three-dimensional presentation of the bedrock contact is presented below:

Image 2: Bedrock Contact



4.6 Surface Water

The nearest surface water is Haslams Creek immediately adjacent to the southeast boundary of the site. Haslams Creek is a concrete lined urban drain that discharges into Homebush Bay (Parramatta River) 0.8km northeast of the site. The water level in Haslams Creek is highly reactive to rainfall.

4.7 Hydrogeology

ALLUVIAL WATER BEARING UNIT	
Groundwater exists 1.5 – 3 mbg within alluvium of the former Haslams Creek. Groundwater flow direction is variable with general flow to the north and northeast (Figure 7A). Piezometric head elevations range from 3 mAHD to 6 mAHD. Groundwater is unconfined. MiHPT results identified the alluvium as highly heterogenous with a broad range of hydraulic conductivities.	
Water Quality Characteristics	
Electrical Conductivity	208 to 15,732 µS/cm, equivalent total dissolved solids between 133 to 10,068 mg/L
pH	5.06 to 8.18
Redox	-174.9 to 102.5 mV
Oxygen	0.09 mg/L to 0.95 mg/L
Temperature	16.7 to 21.6 °C
Water Bearing Unit Characteristics	
Average Conductivity (cm/s)	$1x10^{-10}$ to 3.5×10^{-2}
Hydraulic Gradient	0.02
Effective Porosity	0.01 to 0.3
Flow Velocity (m/year)	Highly variable, locally greater than 100 m/year
Groundwater Flow Direction	Groundwater flow is variable and generally to the northeast

BEDROCK WATER BEARING UNIT	
Bedrock groundwater is water within shale bedrock. This water bearing zone is laterally continuous across the site and off-site and exists 8–10m below site surface, an approximate R.L of -1 mAHD. Piezometric head elevations range between 3.1 and 4.7 mAHD. Groundwater in the bedrock is flowing to the northeast (Figure 7B). Hydraulic conductivity have been estimated from literature values (Feeze and Cherry, 1979). Bedrock groundwater is subject to upward gradients in a semi-confined system.	
Water Quality Characteristics	
Electrical Conductivity	16,586 to 20,840 µS/cm, equivalent total dissolved solids between 10,615 to 13,338 mg/L
pH	5.56 to 6.73
Redox	9.8 to 52.8 mV
Oxygen	0.07 mg/L to 0.74 mg/L
Temperature	19.9 to 23.1 °C
Water Bearing Unit Characteristics	
Average Conductivity (cm/sec)	$1x10^{-7}$
Hydraulic Gradient	0.015
Effective Porosity	0.005
Flow Velocity (cm/s)	2×10^{-6}
Flow Velocity (m/year)	0.095
Groundwater Flow Direction	Groundwater flow direction is towards the northeast.

Reference to the WaterNSW All Groundwater Map (NSW Government, 2019) indicates there are no registered groundwater bores within 500 m of the site. The groundwater bore map is presented in Attachment B.

5. PREVIOUS ENVIRONMENTAL INVESTIGATIONS

5.1 OTEK (2000) Phase I & II Environmental Site Assessment

OTEK were engaged by Orlani Property Group Pty Ltd to undertake a Phase I and II Environmental Site Assessment (ESA) of the site. The objective of the works was to:

- Evaluate sub-surface soil and groundwater conditions;
- Evaluate the environmental and human health impact (if any) associated with the site operations; and
- Determine the suitability of the site for continued commercial / industrial land use.

The findings of the report were based on a review of site historical information and a site investigation undertaken during November and December 1999.

Review of the site historical information indicated the site was owned by a Meat Preserving Company in 1899, Malleys Ltd (White Goods Manufacturer) in 1946, Local Government Superannuation Board in 1981, Public Authorities Superannuation Board in 1985, State Authorities Superannuation Board in mid-1989 and Bivami Pty Ltd (Plastic Packaging Manufacturing) in late 1989 to the time of reporting (19 November 1999). Aerial photographs dated back to 1951 indicated the site was undeveloped until 1961 when a railway line appeared on the northwest boundary of the site along Percy Street. In 1970, two large factory / warehouse buildings were noted and were in the current day layout. In 1978 the railway line appeared to have been decommissioned and small building additions were noted.

Potential on-site contamination sources included a flammable goods cabinet and dangerous goods store, two decommissioned Underground Storage Tanks (UST) and one Aboveground Storage Tank (AST), the disused railway line, imported fill materials in the east and adjacent industrial sites.

The site investigation included a soil boring program consisting of 36 soil borings, the installation of three groundwater monitoring wells and testing of 44 soil samples and five groundwater samples. Boring locations are presented on Figure 3. Soil samples were selectively analysed for Total Petroleum Hydrocarbons (TPH), benzene, toluene, ethylbenzene and xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCPs), Organophosphorus Pesticides (OPPs), heavy metals, phenols, Semi Volatile and Volatile Organic Compounds (SVOCs / VOCs). Groundwater samples were analysed for TPH, BTEX and heavy metals.

The results of the soil testing indicated all concentrations were within the relevant guideline criteria for commercial / industrial land use at the time of the investigation. Groundwater testing indicated elevated levels of short chain hydrocarbons, BTEX and lead adjacent to a decommissioned UST and slightly elevated levels of heavy metals in all three groundwater samples. Tables of analytical results and sample location maps are presented in Attachment F.

The report concluded the soils beneath the site were suitable for commercial / industrial land use and the presence of hydrocarbons and heavy metals in groundwater were not considered to pose a potential threat to human health or the environment.

OTEK concluded the site was suitable for continued commercial / industrial land use.

5.2 WSP (2012) Stage 1 & 2 Environmental Site Investigation

WSP was engaged by Motive Properties Pty Limited to conduct another combined Preliminary and Detailed Site Investigation to determine the suitability of the site for ongoing commercial / industrial land use in relation to the potential sale of the site.

The objective of the works was to undertake additional soil and groundwater investigation to supplement the findings of the OTEK (2000) investigation to meet the sampling density requirements of the NSW EPA (1995) Sampling Design Guidelines.

The scope of the works included a desktop review of historical aerial photographs and council records to determine whether any additional potential sources of contamination were to be targeted in the subsequent intrusive investigation. The intrusive investigation was undertaken between 8 May 2012 and 18 May 2012 and included drilling 19 borings at targeted locations across the site, installation of four groundwater monitoring wells and testing of 22 soil samples and six groundwater samples.

The results of the investigation identified elevated levels of contamination in groundwater. Soils were found to be generally suitable for commercial / industrial land use. No asbestos contamination was reported to be identified in soil during these investigations.

5.3 Geo-Logix (2019) Detailed Site Investigation

Geo-Logix was commissioned by Fabcot to conduct a Detailed Site Investigation of the site to assist Fabcot with their pre-purchase due diligence. Preliminary reviews identified TCE in groundwater as the primary commercial risk to acquisition and development of the property and subsequently the investigation focussed on assessing the source, magnitude and extent of TCE contamination. The investigation also considered other potential contamination issues associated with the site's history and condition. The investigation was undertaken in stages during the period from May to October 2019.

The scope of work comprised the following. Analytical summary tables are presented in Attachment B. Sample locations are presented on Figure 3:

- Sampling and analysis of groundwater from three existing monitoring wells;
- Drilling, installation and sampling of 15 shallow and three deep wells across the site for analysis of a range of contaminants;
- Collection of soil vapour samples from 15 locations across the portion of the site where the building is to be constructed as slab on grade to assess vapour intrusion risk to the proposed building;
- Drilling 22 High Resolution Site Characterisation (HRSC) MiHPT borings across the site to characterise the extent of TCE in groundwater and geology; and
- Drilling, installation and sampling of five shallow wells and two deeper bedrock groundwater wells on the down gradient property 15 Percy Street to assess the off-site extent of TCE / DCE / VC in groundwater.

Groundwater was identified 1.5–3 mbg within alluvium of the former Haslams Creek. Groundwater flow direction in the alluvial water bearing zone was variable with general flow to the north and northeast. Groundwater flow direction in the bedrock water bearing zone was inferred to follow regional groundwater flow towards the northeast and Homebush Bay.

TCE and its degradant products DCE and VC were identified in groundwater across the eastern and northern portion of the site with potential for a minor incursion into 15 Percy Street (Figure 4). Soil vapour investigations did not identify TCE and its degradant products in soil vapour across the western portion of the site where the proposed building will be constructed as slab on grade. Soil vapour was not investigated across the lower eastern half of the site as the proposed construction method, suspended slab, negated the vapour intrusion pathway across this portion of the site.

To assess potential for vapour intrusion into 15 Percy Street a conservative screening method to estimate indoor air concentrations was applied in accordance with NSW EPA (2012) methodology. The estimated indoor air concentrations of TCE and DCE were below the target indoor air concentration for commercial / industrial land use. On this basis the potential for the vapour intrusion pathway to indoor air of the commercial / industrial building on 15 Percy Street was considered unlikely to be complete.

With the exception of potential for trench worker inhalation exposure in the eastern portion of the site where no soil vapour investigation was undertaken, no complete exposure pathways between TCE contaminated groundwater and potential receptors was identified. The potential for trench worker inhalation of TCE was determined to require further investigation.

Multiple lines of evidence indicated TCE in groundwater originated from an off-site source, and while there were a number of industrial properties in the vicinity of the site, the Offset Alpine Printing facility at 42 Boorea Street, Lidcombe located adjacent to the site was considered the most likely origin.

Bonded asbestos fragments were identified on the ground surface in the southeast and northwest corners of the site. Though the risk was considered low, potential for buried asbestos fragments in these areas was identified. Geo-Logix concluded further investigation would be required to determine if a condition exists that requires remediation and/or management.

No other conditions were identified that negate the suitability of the site for the proposed development. On this basis, Geo-Logix recommended the site can be made suitable for the proposed commercial redevelopment, and that if there is potential for worker exposure presented by either trench worker inhalation of TCE or construction worker exposure to bonded asbestos, the risk could be managed through implementation of a site-specific Environmental Management Plan detailing safe work procedures during construction and long-term operation of the site.

5.4 Geo-Logix (2020) Soil Vapour Investigation

Geo-Logix was commissioned by Fabcot Pty Ltd (Fabcot) to conduct a Soil Vapour Investigation (SVI) at the site. Under the proposed development the western portion of the building would be constructed as slab on grade, and the eastern portion as suspended slab above the floodway area of the adjacent Haslams Creek.

The SVI was triggered due to a change in design to include an enclosed ‘basement’ carpark beneath the suspended slab area in the southeast portion of the site. A second purpose of the SVI was to address the Site Auditor request to evaluate if a caged drum store in the existing undercroft area in the southeast portion of the site may be the TCE source. Following the completion of the SVI, the design was reverted back to the original plan of suspended slab with open and unoccupied undercroft in the southeast portion of the site.

The objective of the investigation was to evaluate the following:

- Potential vapour inhalation pathway across the south eastern portion of the site where the enclosed 'basement' area and OSD tank was proposed;
- If the caged drum area in the existing undercroft area may be the source of TCE contamination; and
- Vapour intrusion pathway to indoor air of the commercial / industrial building on 15 Percy Street to the north and downgradient of the site.

CSI Australia Pty Ltd mobile laboratory was engaged to undertake sample collection and analysis and provide near real time results. The results were used to determine if additional sample locations were required to 'chase out' and define the extent of TCE and cis-1,2-DCE in soil vapour. The scope of work comprised:

- Collection of 11 soil vapour samples (VP1-VP6, VP9-VP10, VP14-VP16) on a 25 m grid-based sampling plan across the footprint where the enclosed 'basement' carpark was proposed;
- Two soil vapour samples (VP11-VP12) were collected in the proposed OSD tank location and near the caged drum store;
- Two soil vapour samples (VP7-VP8) were collected along the perimeter of the caged drum storage area;
- Three sub slab soil vapour samples (VP17-VP19) were collected along the northern boundary shared with 15 Percy Street; and
- Collection of one soil vapour sample (VP20) paired with well MW102 where the highest TCE concentrations in groundwater have been identified.

TCE and cis-1,2-DCE were detected at concentrations above Tier 1 soil vapour screening criteria in soil vapour sample VP20 on the eastern boundary and nearby sample VP4 located adjacent to the northern end of the caged drum store and on the eastern edge of the existing undercroft area (Figure 5). TCE and cis-1,2-DCE were not detected at concentrations above Tier 1 screening criteria in any other soil vapour sample collected across the undercroft area including the location of the proposed OSD tank.

TCE in soil vapour was detected at an elevated concentration in sample VP20 collected on the eastern boundary of the site paired with groundwater well MW102 where the highest TCE concentrations in groundwater have been identified. TCE vapour in soil attenuates rapidly away from VP20 and into the site. The decreasing concentration away from VP20 toward the caged drum store area, and absence of TCE in any other soil vapour sample completed in the vicinity of the drum store (VP7, VP11 and VP12) indicated the caged drum store area was unlikely to be the TCE source.

TCE and cis-1,2-DCE were not detected in shallow soil vapour samples VP17, VP18 and VP19 collected along the northern boundary of the site shared with 15 Percy Street. The indoor air inhalation pathway to occupants of 15 Percy Street was considered incomplete.

6. CONCEPTUAL SITE MODEL

For site contamination to present a risk to human health and the environment there has to be a link between the contaminant and the receptor as detailed below.

If any of the links do not exist contaminant exposure cannot occur.

Conceptual Site Model – Soil, Vapour & Groundwater				
Relevant Exposure Pathways	**Receptors**			
	On site users (Commercial / Industrial)	**On site construction workers**	**Neighbouring site users**	**Other**
Soil ingestion / Dermal contact / Dust	X	✓ (asbestos inhalation)	✓ (asbestos inhalation)	Trench worker ✓ (asbestos inhalation) Terrestrial Ecology X(a)
Indoor inhalation of vapours derived from soil	X	X	--	--
Outdoor inhalation of vapours derived from soil	X	X	--	Trench workers X
Indoor inhalation of vapours derived from groundwater	X	X	X	--
Outdoor inhalation of vapours derived from groundwater	X(b)	X(b)	X(b)	Trench workers ✓(c)
Soils leaching to groundwater	--	--	--	Ongoing groundwater impact X
Groundwater abstraction	X	X	X	--
Groundwater discharge to surface water	--	--	--	Recreation / Aquatic ecosystem X
Comments				
X – exposure pathway incomplete no unacceptable risk ✓ – exposure pathway potentially complete and requires remediation and/or management -- Not relevant (a) Surface seal prevents soil exposure (b) Outdoor air dilution (c) Potentially complete exposure pathway. Requires additional investigation.				

Potentially complete exposure pathways under the proposed redevelopment include:

- Construction worker exposure to bonded asbestos during site redevelopment;
- Trench worker exposure to asbestos during operation of the site; and
- Trench worker inhalation of TCE vapour emanating from impacted groundwater while completing sub surface maintenance works.

7. SITE CONTAMINATION SUMMARY

The following contamination issues require remediation and or management for the site to be considered suitable for the proposed development.

- Fragments of bonded ACM were identified on the ground surface of the berm on the eastern boundary and within the adjacent undercroft area. The ACM fragments appear to originate from the existing building.
- A stockpile of building materials potentially containing ACM and a pit that has been filled with rubbish are located in the southeast corner of the site. The rubbish requires removal;
- Fragments of bonded ACM were observed on the ground surface adjacent to the northern entrance driveway in the northwest portion of the site. A single fragment was observed in a soil boring in the same area. The fragments likely originate from a former farm shed observed in historical aerial photos;
- An Underground Storage Tank may exist adjacent to a decommissioned UST in the central portion of the site. The existing decommissioned UST can remain *in-situ*.
- TCE and its degradant products in groundwater and soil vapour beneath the eastern portion of the site that may present a trench worker exposure risk.
- Potential unexpected finds identified following demolition of buildings and removal of slabs.

8. REMEDIATION OPTION CONSIDERATION

The NEPM preferred hierarchy of options for site clean-up and/or management is outlined as follows:

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

if the above are not practicable,

- consolidation and isolation of the soil on site by containment with a properly designed barrier; and
- removal of contaminated material to an approved site or facility, followed, where necessary, by replacement with appropriate material;

or,

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

A preferred remediation options are detailed in the table below:

Issue of Concern	Action Required
Fragments of bonded ACM were identified on the ground surface of the berm on the eastern boundary and within the adjacent undercroft area. The ACM fragments appear to originate from the existing building Fragments of bonded ACM were observed on the ground surface adjacent to the northern entrance driveway in the northwest portion of the site. A single fragment was observed in a soil boring in the same area.	Bonded ACM fragments observed on the ground surface require removal prior to demolition activities. Rubbish and building materials require off-site disposal. Inspection of the ground surface for buried ACM fragments is required following removal of existing surface pavements. In the event buried bonded ACM fragments are identified, the impacted soil will require remediation and or / management under an Environmental Management Plan, depending on the severity of contamination identified.
A small asbestos fibre bundle was detected in the triplicate of sample B1/2.0 collected by WSP from deep fill the vicinity of the former rail line on the western boundary. Asbestos was not detected in the primary samples.	Investigation of the deep fill unit on the western boundary is required to evaluate the nature and extent of asbestos impact (if any) and the requirement for remediation.
An Underground Storage Tank may exist adjacent to a decommissioned UST in the central portion of the site.	Investigation to confirm the presence or otherwise of the UST. Decommissioning, remediation and validation of the UST if identified.
TCE and its degradant products in groundwater and soil vapour beneath the eastern portion of the site that may present a trench worker exposure risk.	Implement Construction Phase and Long Term Operational Phase Environmental Management Plans detailing Work Health and Safety measures for trench workers who may be exposed to TCE and its degradant products.
Unexpected finds following demolition and removal of concrete slabs.	Inspection required by a suitably qualified environmental consultant. Evaluation of unexpected finds in accordance with NEPM methodology. Develop remedial response, amend this RAP.

In the event additional contamination is identified following demolition and removal of slabs, the contamination is to be evaluated in accordance with NEPC (2013) and the requirements of this RAP (where applicable). Where

9. DATA QUALITY OBJECTIVES

A Data Quality Objectives (DQO) process is used to define the type, quantity and quality of data needed to support decisions relating to the remediation of the site. Geo-Logix has adopted the seven step DQO process as described in AS 4482.1-2005 and NEPC (2013).

Step 1: State the problem.

Remediation of asbestos impacted soil and a potential UST is required for the site to be considered suitable for the proposed development. Inspection of the ground surface for ACM or other unexpected finds is required post demolition. An Environmental Management Plan (EMP) is required to manage potential trench worker exposure.

Step 2: Identify the remediation decision.

Site contamination has been adequately remediated or managed and there are no potentially complete exposure pathways between contamination and on-site receptors. The site is suitable for the proposed Customer Fulfilment Centre redevelopment.

Step 3: Identify information inputs.

- Identification of COPC;
- Definition of RAC;
- Appropriate validation sampling strategy; and
- Assessment of validation data against RAC.

Step 4: Define the remediation boundaries of the site.

Remediation is to be undertaken within the areas of the site boundary as defined in Figure 2.

Step 5: Develop a decision rule.

Remediation of the two areas of bonded ACM impacted soil has been performed and validated against Remediation Acceptance Criteria (RAC).

The UST (if present) has been decommissioned, remediated and validated against the RAC.

A Construction Phase and Operational Phase Environmental Management Plan has been developed to manage residual contamination remaining on site at the completion of remediation works.

Step 6: Specify acceptable limits on decision errors.

Field sampling methodology, sample preservation techniques, and laboratory analytical procedures must be appropriate to provide confidence in data quality so that any comparison against RAC can be considered reliable. This is achieved by defining and comparing results against the Data Quality Indicators (DQIs).

Step 7: Optimise the design for obtaining data.

Optimised design is achieved by referencing regulatory guidelines for sample design in consideration of the likely nature of contaminant distribution, or, undertaking additional intrusive investigation and sample collection based on field observations at the time of remedial works.

10. REMEDIATION ASSESSMENT CRITERIA

The following soil assessment criteria were adopted for the investigation.

NEPM Health Based Investigation Level D (HILs D)

HILs are Tier 1 risk based generic assessment criteria used for the assessment of potential risks to human health from chronic exposure to contaminants in soil. They are intentionally conservative and based on a reasonable worst-case scenario for generic land use settings including Residential (HILs A/B), Open Space / Recreational (HILs C) and Commercial Industrial (HILs D). HILs D soil assessment criteria were adopted on the basis the proposed commercial land use.

NEPM Health Screening Levels D (HSLs D)

HSLs are Tier 1 risk based generic soil assessment criteria used for the assessment of potential risks to human health from chronic inhalation exposure of petroleum vapour emanating off petroleum contaminated soils (Vapour Risk). They are intentionally conservative and based on a reasonable worst-case scenario for generic soil types, contamination depth and land use settings including Residential (HSLs A/B), Open Space / Recreational (HSLs C) and Commercial Industrial (HSLs D). HSL D for sand soil (0 - <1 m) were conservatively adopted.

NEPM Management Limits – Commercial / Industrial

Management Limits for petroleum have been developed for prevention of explosive vapour accumulation, prevention of the formation of observable Light Non-aqueous Phase Liquids (LNAPL) and protection against effects on buried infrastructure. Commercial / Industrial management limits for coarse soils were adopted based on the proposed land use and geology encountered.

NEPM Asbestos Criteria – Commercial / Industrial

Asbestos assessment criteria are included in NEPM (1999) amendment. Those criteria apply to the assessment of known and suspected asbestos contamination in soil and address friable and non-friable forms of asbestos.

Commercial / Industrial D health screening levels are adopted on the basis of the proposed land use. Friable asbestos has not been identified onsite. Criteria for Commercial / Industrial D HSLs includes the following:

- 0.05% w/w for ACM
- 0.001% w/w AF/FA; and
- No visible asbestos in the top 0.1 m.

Ecological Assessment

Ecological assessment criteria are not considered relevant as the site will be sealed and is located within an industrial precinct with no nearby sensitive receptors.

11. REGULATORY APPROVALS AND LICENSING

11.1 Waste Classification

All wastes generated shall be classified in accordance with NSW EPA (2014) *Waste Classification Guidelines* – Part 1 Classifying Waste.

11.2 Protection of Environment Operations Act 1997

Remedial works do not fall within the licensing requirements for Contaminated Soil Treatment Works. All material to be excavated and removed from the site will be undertaken in strict accordance with the requirements of the *Protection of the Environment Operations Act 1997* (NSW). Such requirements include:

- Ensuring waste is classified appropriately and in accordance with relevant guidelines;
- Ensuring appropriate transport of wastes; and

- Ensuring wastes materials are disposed to appropriately licensed landfill facilities.

11.3 Protection of the Environment Operations (Waste) Regulation 2014

Remediation of contaminated material is not a scheduled activity under the *Protection of the Environment Operations (Waste) Regulation 2014* (NSW) and therefore does not require a licence under the regulation for the following reasons:

- Less than 2,500 m^3 of contaminated soil will be treated (not incinerated); and
- Area of remedial disturbance will be less than 3 ha.

11.4 WHS Legislation, Regulations and Standards

The remediation works will be conducted in compliance with applicable WHS legislation, regulations and standards. These may include:

- Work Health and Safety Act 2011 (Commonwealth of Australia);
- Work Health and Safety Regulation 2017 (NSW); and
- The Dangerous Goods Act 1975 (NSW) and Dangerous Goods (General) Regulation 1999 (NSW); and
- Exposure Standards for Atmospheric Contaminants in the Occupational Environment (NOHSC, 1995).

11.5 Asbestos Removal Regulations and Code of Practice

The movement and disposal of asbestos contaminated soils will be managed in accordance with the following:

- *Work Health and Safety Act 2011* (Commonwealth of Australia)*;*
- *Work Health and Safety Regulation 2017* (NSW)*;*
- *Managing asbestos in or on soil* (WorkCover NSW, 2014);
- *How to Safely Remove Asbestos Code of Practice* (Safe Work Australia, 2011a);
- *Code of Practice for the Safe Removal of Asbestos 2nd Edition,* (NOHSC: 2002 (2005));
- *How to Manage and Control Asbestos in the Workplace Code of Practice* (Safe Work Australia, 2011b);
- *Code of Practice for the Management and Control of Asbestos in Workplaces* (NOHSC): 2018 (2005)); and
- Working with Asbestos Guide (WorkCover, 2008).

Asbestos removal is to be completed under the supervision of a Class B Licenced Asbestos Removalist. A site-specific asbestos removal permit is to be obtained from NSW WorkCover at least seven days before the work is to commence.

An Asbestos Removal Control Plan is to be prepared by the party undertaking asbestos removal activities prior to the commencement of works.

12. PRELIMINARIES

12.1 Work to be completed prior to site establishment

Prior to undertaking works the following documents will be required:

- Site Specific Health and Safety Plan (SSHSP), Asbestos Removal Control Plan and Induction Record; and
- Site Management Plan (SMP).

12.2 Site Facilities

Site facilities to be established on site prior to the commencement of remedial works will include:

- Defined entry and exit points; and
- Vehicle wash down bay (if required).

12.3 Site Access

All personnel entering the site will be required to sign in / out at the site office. Personnel entering and working on the site will require the following:

- Complete Site Induction;
- Appropriate Personnel Protective Equipment (PPE) as detailed in the SSHSP; and
- Completed the WorkCover Occupational Health and Safety General Induction for Construction Work in NSW.

12.4 Work Health and Safety Signage

Signage will be installed at site entrances detailing the location of first aid facilities and after hour contacts. Warning signs will be placed around the perimeter of the site to prevent unauthorised access.

12.5 Remediation Project Hours

Civil remediation work will be restricted to the following:

- Between 7 am to 6 pm Monday to Saturday; and
- No work to be carried out on Sundays or public holidays.

13. BONDED ACM REMEDIATION METHODOLOGY

13.1 Southeast Area

Fragments of bonded ACM have been identified on the site surface in the southeast portion of the site. The fragments originate from the building structure and do not appear to be associated with a contaminated imported fill material. Remediation will include:

- Securing the site and implementation of the SMP prior to remediation;
- Supervision of the works by a Class B Licensed Asbestos Removal Contractor. The Asbestos Removal Contractor is to prepare an Asbestos Removal Control Plan with specific safe work procedures for the task;
- Implementation of asbestos air monitoring during remediation and disposal activities by an independent licensed asbestos assessor;
- Hen pecking of bonded asbestos from the site surface across the asbestos AEC in accordance with WA DOH Guidelines, including at least 2 passes of picking made with 90° direction change between each and using a grid pattern;
- Raking of the surface and collection of bonded asbestos fragments revealed during tilling in accordance with WA DOH Guidelines, including at least 2 passes of picking made with 90° direction change between each and using a grid pattern;
- Placement of asbestos fragments collected during hen pecking and tilling into a 200 um labelled plastic bag to be sealed for offsite disposal to landfill.

Stockpiled building material and rubbish in the pit in the southeast corner of the site is to be placed in a skip bin lined with plastic sheeting and disposed off-site to landfill as Special Waste (Asbestos).

Validation Methodology

Following hand pick removal of bonded ACM on the ground surface, building materials and rubbish in the pit, visual inspection to confirm the removal of all visible ACM is to be completed. A Clearance Certificate is to be prepared by a Licensed Asbestos Assessor or duly qualified person is required in accordance with Clause 474 of the Work Health and Safety Regulation 2017 (NSW).

13.2 Northern Driveway Unsealed Area

Occasional bonded ACM fragments were observed on the strip of unsealed ground between the northern driveway and the adjacent warehouse building on Lot 1. While no indication of asbestos fines was observed, there has been some crushing of fragments by truck movements and the presence of friable asbestos cannot be ruled out. The remedial process involves the excavation and off-site disposal of the top 50 mm of soil across the impacted area under friable asbestos controls. Remediation will include:

- Securing the site and implementation of the SMP prior to remediation;
- Supervision of the works by a Class A Licensed Asbestos Removal Contractor. The Asbestos Removal Contractor is to prepare an Asbestos Removal Control Plan with specific safe work procedures for the task;

- Implementation of asbestos air monitoring during remediation and disposal activities by an independent licensed asbestos assessor;
- Excavation of the top 50 mm of soil across the impacted area as defined on Figure 6;
- Stockpiling of excavated soil pending waste classification and off-site disposal;
- Removal and disposal of stockpiled asbestos contaminated soil material to a landfill licensed to accept asbestos waste. Copies of the waste disposal receipts are to be included in the final Remediation and Validation Report.

Validation Methodology

Following excavation and off-site disposal of bonded ACM impacted soil, the remediation area is to be validated in accordance with the following methodology:

- Collection of soil samples from the floor of the excavation on a 5 metre grid-based sampling plan;
- Laboratory analysis of soil samples for asbestos fines and fibrous asbestos (AF/FA);
- Inspection of soil samples as per the WA DOH (2009) gravimetric method for bulk soils for bonded ACM fragments;
- Comparison of laboratory analytical results against the RAC; and
- Visual inspection and preparation of a Clearance Certificate prepared by a Licensed Asbestos Assessor is required in accordance with Clause 474 of the Work Health and Safety Regulation 2017 (NSW).

13.3 Northern Driveway Concrete Paved Area

A single ACM fragment was observed in fill within a boring completed in the northern driveway. The following is to be completed to determine if a condition requiring remediation exists:

- Removal of driveway pavements;
- Walkover and inspection by an appropriately qualified environmental consultant;
- Raking of the fill to 300 mm depth using an excavator;
- Inspection of the fill during the raking process.

Where bonded ACM fragments are identified in fill, the following will be completed to assess for conditions requiring remediation:

- Test pits are to be completed across the impacted area at a density two times that defined in Appendix A of WA DOH (2009) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.
- A soil sample is collected across the full thickness of the fill. Fill is expected to be approximately 300 mm deep;
- A sub sample is placed in a laboratory supplied 500 mL sample bag and transported under chain of custody to for analysis for AF and FA.
- Collection of a 10 L fill sample from each test pit;
- The 10 L sample is spread out for inspection on a contrasting colour material; and

- Identified ACM fragments are collected and weighed to calculate the asbestos soil concentration as per WA DOH (2009) where:

  %Soil Asbestos = (% Asbestos Content × ACM Mass)/(Soil Volume × Soil Density).

  It is assumed that % Asbestos Content in ACM is 15%, and that Soil Density is 1.65 kg/L.

If the soil is impacted by ACM at concentrations above the RAC, remedial is to comprise the following:

- Impacted soil is to be excavated and stockpiled. Excavation is to be guided by suitably qualified consultant and professional judgement is to be used to determine extent of excavation based on field observations of the materials encountered during excavation;
- Excavated material is to be transported to a hardstand area (remediation area);
- Excavated material is to be spread out in 50 m^3 portions with the excavator as a 0.1 m thick layer across an area of approximately 20 m x 25 m on the hard stand area;
- The material is to be raked with the teeth of the excavator and then by hand to break up clods;
- The material is to be inspected for ACM fragments by completing a walkover along the length of the material on approximately 1 m wide spaced grid lines;
- ACM fragments are to be hand-picked. Appropriate Personnel Protective Equipment including gloves, coveralls and half face disposable particulate respirator will be used;
- The material is to be inspected by completing a walkover on 1 m wide grid lines; and
- Upon satisfactory removal of ACM fragments the material is to be stockpiled for validation sampling.

If the soil is impacted by AF or FA at concentrations above the RAC, the soil is to be excavated and disposed of off-site in accordance with the methodology in Section 13.2.

Validation Methodology

Following handpicking of ACM from excavated fill soils, the remediated soils will be validated with the following methodology:

- Remediated material is to be temporarily stockpiled;
- The stockpiled soil is to be sampled at a rate of 1 per 25 m^3, with a minimum of three samples per stockpile. Three 10 L soil samples are to be collected from each stockpile immediately after stockpiling in accordance with NEPC (1999) National Environmental Protection (Assessment of Site Contamination) Measure Table 4 Minimum Number of Samples Recommended for Initial Assessment of Stockpiles;
- Visual assessment and measurement of the %w/w ACM of each 10 L soil sample in accordance with the WA DOH (2009) Gravimetric Method;
- Gravimetric results are to be compared against commercial / industrial landuse criteria as specified in the RAP immediately after assessment;
- If %w/w ACM in the stockpile samples exceed the commercial / industrial landuse criteria the stockpile is to be re-spread, reinspected and ACM hand-picked. This process is to be repeated until %w/w ACM is below assessment criteria.

If the material is excavated and disposed off-site, validation of the resulting excavation will be as per Section 13.2.

13.4 Former Rail Line

A small asbestos fibre bundle was detected in the triplicate of sample B1/2.0 collected by WSP from deep fill the vicinity of the former rail line on the western boundary. Asbestos was not detected in the primary samples. Investigation of the deep fill unit on the western boundary is required to evaluate the nature and extent of asbestos impact (if any) and the requirement for remediation. The investigation methodology comprises the following:

- Exploratory test pitting is to be undertaken to determine the extent of the deep fill unit;
- Test pits are to be completed across the impacted area at a density two times that defined in Appendix A of WA DOH (2009) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.
- A soil sample is collected across each 1m of fill thickness. Fill is expected to be up to 3.5 m deep;
- A sub sample is placed in a laboratory supplied 500 mL sample bag and transported under chain of custody to for analysis for AF and FA.
- Collection of a 10 L fill sample from each test pit;
- The 10 L sample is spread out for inspection on a contrasting colour material; and
- Identified ACM fragments are collected and weighed to calculate the asbestos soil concentration as per WA DOH (2009) where:

  %Soil Asbestos = (% Asbestos Content × ACM Mass)/(Soil Volume × Soil Density).

  It is assumed that % Asbestos Content in ACM is 15%, and that Soil Density is 1.65 kg/L.

In the event ACM, AF or FA are identified at concentrations above the RAC, the fill is to be remediated in accordance with the methodology presented in Section 13.3.

14. UST DECOMMISSIONING AND REMEDIATION METHODOLOGY

A potential UST was identified by Ground Penetrating Radar adjacent to the existing UST in the centre of the site. The presence of the UST has not been physically confirmed. If the UST exists it will require decommissioning and remediation in accordance with the following methodology.

14.1 UST Removal and Remediation Methodology

The UST is to be excavated and removed for off-site disposal by an appropriately licensed contractor. Any impacted soils will be removed by excavation for stockpiling and land farming. The remediation process will include:

- Site will be secured and SMP implemented prior to excavation;
- Engage Australian Institute of Petroleum (AIP) accredited tank removal contractor;

- USTs removed by AIP contractor in accordance with *AS 4976-2008 The Removal and Disposal of Underground Petroleum Storage Tanks* and SafeWork NSW regulations;
- USTs must be transported by a licensed dangerous goods carrier and disposed of off-site to a suitable disposal facility. A UST destruction certificate is to be obtained from the disposal facility;
- Soils are to be excavated under supervision of the appointed environmental consultant;
- Soils are to be screened for the presence of Volatile Organic Compounds (VOCs) in the field using a calibrated Photoionisation Detector (PID);
- Impacted soil surrounding UPSS is to be excavated until field screening (PID and visual) indicates a reduction in contaminant concentrations; and
- Excavated soils are to be stockpiled on-site pending decision to re-use the material or off-site disposal to landfill; and
- Reinstatement of remedial excavations with suitable material.

14.2 Stockpile Methodology

Geo-Logix estimates the volume of soil requiring excavation for the removal of the UST to be up to 200 m^3. Excavated soil is to be stockpiled on hardstand or low density polyethylene sheeting and bound by silt controls (hay bales or silt fence).

14.3 UST Validation Methodology

Following removal of the UST, the remedial excavation will be validated in accordance with the following methodology:

- Collection of soil samples from the base of the resulting excavations at a minimum rate of one per tank;
- Collection of soil samples from the walls of the excavations at a rate of one per five linear metres;
- Collection, preservation and transportation of soil samples in accordance with Geo-Logix Soil Sampling Methodology (Attachment C);
- Analysis of soil samples for COPC including Total Recoverable Hydrocarbons (TRH), benzene, toluene, ethylbenzene and xylenes (BTEX), Volatile Organic Compounds (VOCs) and heavy metals, by a NATA accredited laboratory;
- Completion of Quality Assurance/Quality Control (QA/QC) procedures in accordance with this RAP; and
- Comparison of analytical results against the RAC.

Groundwater investigations have not identified elevated petroleum hydrocarbon concentrations in groundwater that would prohibit the site from the proposed development. Groundwater validation sampling for COPC associated with the UST (if present) is not considered necessary.

14.4 Stockpile Validation Methodology

To assess suitability of any excavated stockpiled material for onsite reuse or off-site disposal, the following will be implemented:

- Collection of soil samples at a rate of 1 per 25 m^3 from the undisturbed bulk of the stockpiled soil (>300 mm from soil surface);
- Analysis of soil samples at a NATA accredited laboratory for COPC including TRH, VOCs, PAHs, OCPs and heavy metals; and
- Comparison of analytical results against the RAC.

14.5 Remedial Excavation Reinstatement

Remedial excavations may be reinstated with on-site material meeting the RAC or imported fill meeting the requirements specified in Section 16.

15. UNEXPECTED FINDS PROTOCOL

Inspection of the ground surface for unexpected conditions is to be completed following demolition and removal of concrete slabs. The primary potential issue is the occurrence of buried bonded or friable asbestos in fill.

Inspection is to be completed by an appropriately qualified and experienced Environmental Consultant by undertaking line walk across the area of removed concrete on two metre spacing. Any suspect soil or fill should be further inspected using an excavator.

15.1 Asbestos Find Investigation Methodology

In all, buried bonded asbestos was only identified in one boring out of the 70 borings that have been completed across the site by OTEK, WSP and Geo-Logix. As such, the potential for widespread or voluminous asbestos impacted soils across the site is considered low.

In the event bonded or friable asbestos impacted soil is observed, impacted soils are to be evaluated in accordance with the following methodology to determine the nature and extent of contamination, and the requirement for additional remediation.

- Test pits are to be completed across the impacted area at a density two times that defined in Appendix A of WA DOH (2009) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.
- A soil sample is collected from each metre of fill;
- A sub sample is placed in a laboratory supplied 500 mL sample bag and transported under chain of custody to for analysis for AF and FA.
- Collection of a 10 L soil sample from each vertical metre of fill within each test pit;
- The sample is spread out for inspection on a contrasting colour material; and
- Identified ACM is collected and weighed to calculate the asbestos soil concentration as per WA DOH (2009) where:

%Soil Asbestos = (% Asbestos Content × ACM Mass)/(Soil Volume × Soil Density).

It is assumed that % Asbestos Content in ACM is 15%, and that Soil Density is 1.65 kg/L.

Where the asbestos concentration meets the RAC, the soil can remain on site without requirement for long term controls.

Where the ACM, AF or FA concentration in soil exceeds the RAC, the impacted soil will require remediation and / or management in accordance with the options presented in Section 5 of WA DOH (2009). Remedial options include:

- Treatment on-site by hand picking ACM fragments and off-site disposal of the fragments;
- Excavation and off-site disposal of impacted soil;
- Management in-situ; and
- Encapsulation on-site and management under a long-term Environmental Management Plan.

15.2 Other Unexpected Conditions

Any other unexpected conditions should be assessed by an appropriately qualified and experienced environmental consultant in accordance with Schedule B1 and B2 of NEPC (2013).

16. IMPORTED FILL VALIDATION METHODOLOGY

If there is a requirement to reinstate remedial excavations with imported fill, fill must meet the definition of one or both of the following:

- Virgin Excavated Natural Material (VENM); or
- Excavated Natural Material (ENM).

Consignors of ENM have certain obligations under the ENM Exemption. The Environmental Consultant is to ensure imported fill meets VENM / ENM definition and acquire appropriate documentation for the client, the consignor of waste.

17. WASTE CLASSIFICATION

Where applicable, soils requiring off-site disposal are to be classified in accordance with the following methodology:

- Soil samples are to be collected at a rate of 1 per 25 m^3 from the undisturbed bulk of the stockpiled soil (>300 mm from soil surface);
- Soil samples are to be analysed for COPC including TRH, VOCs, PAHs, OCPs, heavy metals and asbestos; and
- Analytical results are to be compared against NSW EPA (2014) *Waste Classification Guidelines*.

18. DATA QUALITY INDICATORS

QC/QA will be tested by review of data against Data Quality Indicators (DQIs) to ensure data precision, accuracy, representativeness, comparability and completeness. A summary of DQIs are presented in the table below:

Data Quality Objectives	Frequency	Data Quality Indicator
Precision		
Blind Replicate Samples	1 Per 20 Samples	RPD <50%
Split Samples	1 Per 20 Samples	RPD <50%
Accuracy		
Surrogate Spikes	All Organic Analyses	General analytes recovery of 70%-130%
Laboratory Control Samples	1 Per Batch	General analytes recovery of 70%-130%
Matrix Spikes	1 Per Batch	General analytes recovery of 70%-130%
Analysis Blank	1 Per Batch	Non Detect
Representativeness		
Samples Stored At 4°C	All Samples	-
Samples Analysed Within Specified Holding Times	All Samples	Organics 14 days / Inorganics 6 months
Trip Spike	1 Per Batch	Recovery of 70% - 130%
Trip Blank	1 Per Batch	Non detect
Samples Transported Under COC Conditions	All Samples	-
Comparability		
NATA Approved Laboratory Analytical Method	All Samples, All Analytes	-
Consistent Sampling Techniques	All Samples	-
Appropriate Laboratory Reporting Limits	All Samples, All Analytes	-
Completeness		
Geo-Logix Standard Field Templates Used	All Samples	-
Appropriate Sampling To Support The Objectives	-	Meets minimum sampling requirements

Notes:
(1) AS 4482.1-2005 (Australian Standard, 2005) indicate an acceptable Relative Percentage Difference (RPD) range of 30%-50%, and that the variation can be expected to be higher for organic analysis than inorganics, and for low concentrations of analytes. Given the soil samples will be collected for the purpose of validating the removal of contaminated soils, any detected concentrations are expected to be low and close to the laboratory detection limits. As such, a RPD acceptable limit of 50% was deemed appropriate for the investigation.
(2) Field and Laboratory Quality Control/Quality Assurance (QA/QC) procedures will be conducted in accordance with NEPC (2013) and AS 4482.1-2005.

18.1 Field QA/QC

Field sample QA/QC will be conducted in accordance with *AS 4482.1-2005* (Australian Standard, 2005) and consist of the following:

- Sample Duplicates – 1 per 20 samples;
- Sample Triplicate (Secondary Lab) –1 per 20 samples; and
- Sample equipment rinsate sample – 1 per day.
- Trip spike samples – 1 per batch.
- Trip blank samples – 1 per batch.

Soil sampling will be undertaken in accordance with the Geo-Logix Soil Sampling Procedure (Attachment B), utilising disposal gloves between each sample location. Sampling equipment will be decontaminated by the following method:

- Washing in water and phosphate free detergent solution (Decon 90); and
- Double rinsing in tap water.

18.2 Field Data QA/QC Acceptance Criteria

The acceptance criteria for QA/QC samples are detailed in the following table:

Quality Control Sample	Minimum Number Of Samples	Data Quality Indicator
Duplicate sample	1 per 20	50% Relative Percent Difference (RPD) (1)
Triplicate Sample	1 per 20	50% RPD (1)
Rinsate Blank	1 per day	No detectable concentrations

In the event the acceptance criteria are not met, the variation will be taken into consideration and its implications assessed in regard to the context of the investigation.

18.3 Laboratory QA/QC

The following laboratories are proposed to be engaged to undertake sample analysis:

- Primary Laboratory - Eurofins Laboratories Pty Ltd (Sydney) (NATA accredited); and
- Secondary Laboratory - Eurofins Laboratories Pty Ltd (Melbourne) (NATA accredited).

Primary and secondary laboratories must comply with the minimum QA procedures documented in Schedule B(3) in NEPC (1999*) National Environmental Protection (Assessment of Site Contamination) Measure* and include but not be limited to:

- At least one analysis blank per batch;
- Duplicate analysis at a rate of one per batch or one per ten samples, whichever is smaller;
- Laboratory Control Samples at a rate of one per batch;
- Matrix Spikes; and
- Surrogate Spikes.

The acceptance criteria for laboratory QC is presented in the following table:

Quality Control Sample	Data Quality Indicator
Matrix Spike	General analytes recovery of 70% - 130% / Metals recovery of 70% - 130%
Laboratory Control Sample	General analytes recovery of 70% - 130% / Metals recovery of 70% - 130%
Surrogate Sample	Results compared to analyte specific criteria / Metals recovery of 70% - 130%
Method Blank	< Laboratory Reporting Limits
Sample Duplicate	**Organics**
	RPD of 0-50% (>10xPQL), RPD of 0-75% (5-10xPQL), RPD of 0-100% (<5xPQL)
	Metals
	RPD of 0-30% (>10xPQL), RPD of 0-75% (5-10xPQL), RPD of 0-100% (<5xPQL)

19. SITE MANAGEMENT PLAN

A Site Management Plan (SMP) will be prepared to ensure appropriate procedures and methods are employed to minimise the potential for erosion, to avoid contamination leaving the site and to avoid disturbance of neighbouring areas.

The SMP is to be adhered to during the remediation works. The SMP will address the following:

- Water and soil management;
- Air quality management;
- Noise management; and
- Traffic management.

Remediation works will comply with relevant legislative requirements, licences, approvals and notices. Regular monitoring of environmental performance will be undertaken to identify if any areas require improvement.

19.1 Water and Soil Management

Where possible, excavation will be restricted to favourable weather conditions (e.g. dry, still or low wind weather). Additionally the following measures should be adhered to for water management on-site:

- Surface water management measures will be implemented prior to the commencement of excavation to divert surface water run-off away from excavations or stockpiles;
- Drainage diversions will guide water to existing drainage gutters and pits, following existing drainage patterns as reasonably as possible. The drainage diversions will also be arranged so that surface water run-off from disturbed or contaminated areas does not enter remediated or undisturbed areas;
- Any surface water run-off that does inadvertently enter the excavations will be treated as perched groundwater. Perched water is to be tested and disposed of to a facility licensed to accept the waste.

- Surface water and sediment management measures will also be implemented around stockpiles (if required). Any soil stockpiling areas will be lined with Low Density Polyethylene sheeting (LDPE) and bunded to prevent runoff and to prevent leaching of contaminants to the sub-surface. The LDPE sheets are to be rolled out perpendicular to the slope, with a minimum of 300mm overlap. The up-gradient layer is to overlap the down-gradient layer. Each side of the overlap is to be sealed with a PVC tape. Stockpiles are to be surrounded by silt fence and / or straw bales;
- Sediment removed from any trapping device (e.g. silt fence, straw bales and/or stormwater collecting ponds) shall be relocated where further pollution down slope lands and waterways cannot occur;
- Should excavated material will be stockpiled, they are to be located away from traffic areas, from any potential disturbances and from existing drains. Stockpiles should be constructed in flat areas of the site; and
- In the event of rain, stockpiles will be covered in PVC plastic at the end of each day to prevent water infiltration, sediment runoff and escape of moisture or dust.

19.2 Air Quality Management

Dust emissions are to be minimised to a practical extent. The following measures may be used to ensure this:

- All loads entering and exiting the site are to be covered;
- Light water spray can be used to suppress dust;
- Stockpiles can be covered with LDPE; and
- Excavation surfaces can be lightly wetted down if emitting dust.

The following measures may be employed if odorous conditions are encountered:

- Odour monitoring will be performed through regular personal olfactory observations by site personnel. A PID may be used during earthworks to detect and identify hotspots where additional protection procedures may be necessary;
- Covering excavation faces and stockpiles with plastic;
- Installing a water misting system around the odour area; and
- Using an odour suppressant such as Biosolve.

Asbestos air monitoring will be undertaken during bonded ACM remediation works.

19.3 Noise Management

The potential for noise impacts from the remediation works will result from the preparation of the site, movement of vehicles and operation of plant on the site.

Noise is not considered to be a significant issue for proposed activities at the subject site due to its location and surrounding land uses. Noise will be minimised by the following:

- Ensuring machinery is appropriately maintained; and

- Restricting work to designated work hours.

19.4 Traffic Management

All trucks and vehicles transporting soil, equipment, machinery or materials to and from the site will abide by the following:

- All vehicles will access the site via the site gate which will be designated prior to the commencement of works;
- A rumble grid or pad of crushed aggregate will be installed at the vehicle access entry/exit point;
- Comply with road traffic rules;
- Secure and cover all loads;
- Truck tyres and equipment will be inspected and dry cleaned if necessary prior to leaving disturbed areas; and
- Will not track soils onto the roads.

20. WORK HEATH AND SAFETY

This section of the RAP describes the minimum standards to be adopted to protect the health and safety of all persons involved in remedial works.

The remediation contractor will develop and implement a suitable Health and Safety Management System in compliance with legislative and regulatory requirements.

A SSHSP will be developed prior to commencement of the works. The SSHSP will detail the appropriate health and safety information necessary to conduct the remediation works in a safe manner. The SSHSP must be read and understood by all people entering the site during remediation works. It is the Principal Contractor's responsibility to induct all site workers and visitors on the requirements of the OHS Plan. The SSHSP should outline the following:

- Statement of Responsibilities;
- Hazard Identification;
- Safe Work Procedures;
- Preparation of a large map for site workers depicting the location of residual contaminated soil;
- Define a list of relevant personnel, their duties, and contact details;
- Outline the appropriate PPE;
- Define air monitoring requirements and odour control measures;
- Outline personnel hygiene controls to minimise accidental exposure to contaminated soils and groundwater;
- Provide contact details and map to nearest hospital; and
- Toolbox talk meeting records and induction records for contractors.

20.1 Responsibilities

Responsibilities and duties of the remediation contractor in relation to WHS will include:

- Ensuring all work undertaken is performed in accordance with relevant legislation and regulations, and directions issued by regulatory authorities;
- Developing and documenting safe working practices for all employees and subcontractors;
- Ensuring workers are adequately trained to undertake their work tasks using the adopted work practices;
- Ensuring that the work is performed in strict adherence to the adopted work practices;
- Appointing a suitably qualified and experienced Site Safety Officer (SSO) to supervise and control safety matters;
- Supplying and maintaining first aid facilities and ensuring first aid attendants are present in accordance with statutory requirements;
- Ensuring all workers are inducted prior to their commencement of work. This will include site specific conditions, work procedures, emergency and evacuation procedures, decontamination and other relevant matters detailed in the SSHSP;
- Ensuring copies of SSHSP are readily available;
- Establishment and maintenance of a record of all hazardous substances on the site including provision of Material Safety Data Sheets (MSDS);
- Reporting all site incidents and accidents to the WorkCover Authority;
- Ensuring that the SSO is on-site during all site works to monitor compliance with the SSHSP;
- Ensuring that regular documented OHS inspections are conducted, including the use of a documented follow-up system to monitor improvements and measures introduced to rectify any observations made;
- Supplying and maintaining the required PPE; and
- Ensuring all workers are trained in the use of the PPE and correctly use PPE.

21. CONTINGENCY PLAN

The Contingency Plan (CP) concentrates on the response to incidents, including notification, activation, response and recovery phases, but also requires cause identification and review procedures.

Should an incident occur which causes, or has the potential to cause, environmental damage or harm to human health, the CP will govern responses in accordance with the specific incident procedures. Incidents addressed in the CP will include off-site discharges of impacted stormwater, flooding of drains, chemical spills, etc.

No contingency plan will substitute for sound environmental practice during the remedial works. Accordingly, it is the responsibility of the environmental consultant and remediation contractor to monitor the works at all times and manage all potentially significant activities in a proactive manner. Records of all actions relating to environmental protection measures, contingency events and impacts will be documented.

The following table summarises anticipated problems, the resulting impacts they may cause and the proposed response actions to be taken.

Anticipated Problem	Potential Impact	Corrective Action
Release of fuel/ oil from machinery	Impact of surface waters and/ or soils	Remove source, use adsorbent booms to remove oil, make any repairs.
Excessive dust	Nuisance complaints	Use water sprays; or stop dust- generating activity until better dust control can be achieved.
Excessive noise	Nuisance complaints	Identify source and review noise attenuation equipment.
Excessively wet materials	Generation of turbid waters	Stockpile and dewater on site or use absorbents
Flooding by extreme rainfall events	Impact of stormwater and / or contact with contaminated soils	Sediment filters will be installed on the stockpile area overflow, a record will be kept of the estimated water and the time period over which the discharge occurs. Cover stockpiles with plastic to reduce rainfall infiltration.
Unacceptable levels of volatile gases	Occupational health and safety concern and odour	Cover exposed soil stockpiles and excavation pits, use mitigation agent. Work to cease until clearance is provided
Excessive odours	Nuisance complaints	Use odour suppressants (such as Biosolve©), cover exposed soil stockpiles and excavation pits.
Equipment failures	Program delay	Maintain spare equipment and parts; keep rental options available.

22. COMMUNITY CONSULTATION

Based on immediate surrounding non-sensitive land use (industrial precinct), community consultation on site remediation is not considered necessary.

23. REPORTING

A Remediation and Validation report is to be prepared in accordance with the following guidelines:

- National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (NEPC, 1999); and
- Consultants reporting on contaminated land: Contaminated Land Guidelines (NSW EPA, 2020)

The report will include the following information:

- Description of the works completed;
- The DQOs for the validation program and their achievement by referencing DQIs;
- Detailed figures outlining the extent of the remediation works;

- Location of all validation samples;
- Summary analytical tables;
- Laboratory analytical reports;
- Summary of the tracking, volumes and fate of disposed material;
- Landfill disposal dockets;
- Conclusions as to the suitability of the land for the proposed redevelopment; and
- Recommendation for additional remediation works or environmental monitoring (if required).

24. ENVIRONMENTAL MANAGEMENT PLAN

At completion of remediation an Environmental Management Plan will be prepared for the site. The EMP will be an operational plan in anticipation of the commercial / industrial use and will detail safe work procedures for trench workers performing sub surface works across the portion of the site impacted by TCE, and any other measures required to manage residual contamination in the event additional contamination is identified. The EMP will be kept onsite and maintained and implemented by the facilities manager. At a minimum the EMP will include:

- Introduction;
- Contamination Description;
- Hazard Assessment;
- WH&S Procedures for subsurface workers;
- Waste Management; and
- Record Keeping.

Stakeholders and responsibilities are listed below

Stakeholder	Responsibility	Actions
Cumberland City Council	Planning Approvals EMP Enforceability Planning Certificate	Development consent to include a condition that requires the Site to be managed in accordance with the EMP. The condition addresses legal enforceability of the EMP. Update 10.7 Planning Certificate to identify the Site Audit Statement, and existence of the EMP.
Site Owner Fabcot Ltd	Covenant on title Implement EMP	Provide council updated land title certificate with covenant on title binding the current owners and future owners to be responsible for management of residual contamination onsite. Ensure the EMP is readily available, up to date, and relevant for those whom may come in contact with Site contamination.

25. REFERENCES

Australian Standard (2005) AS 4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Volatile and Semi-volatile compounds. Standards Australia.

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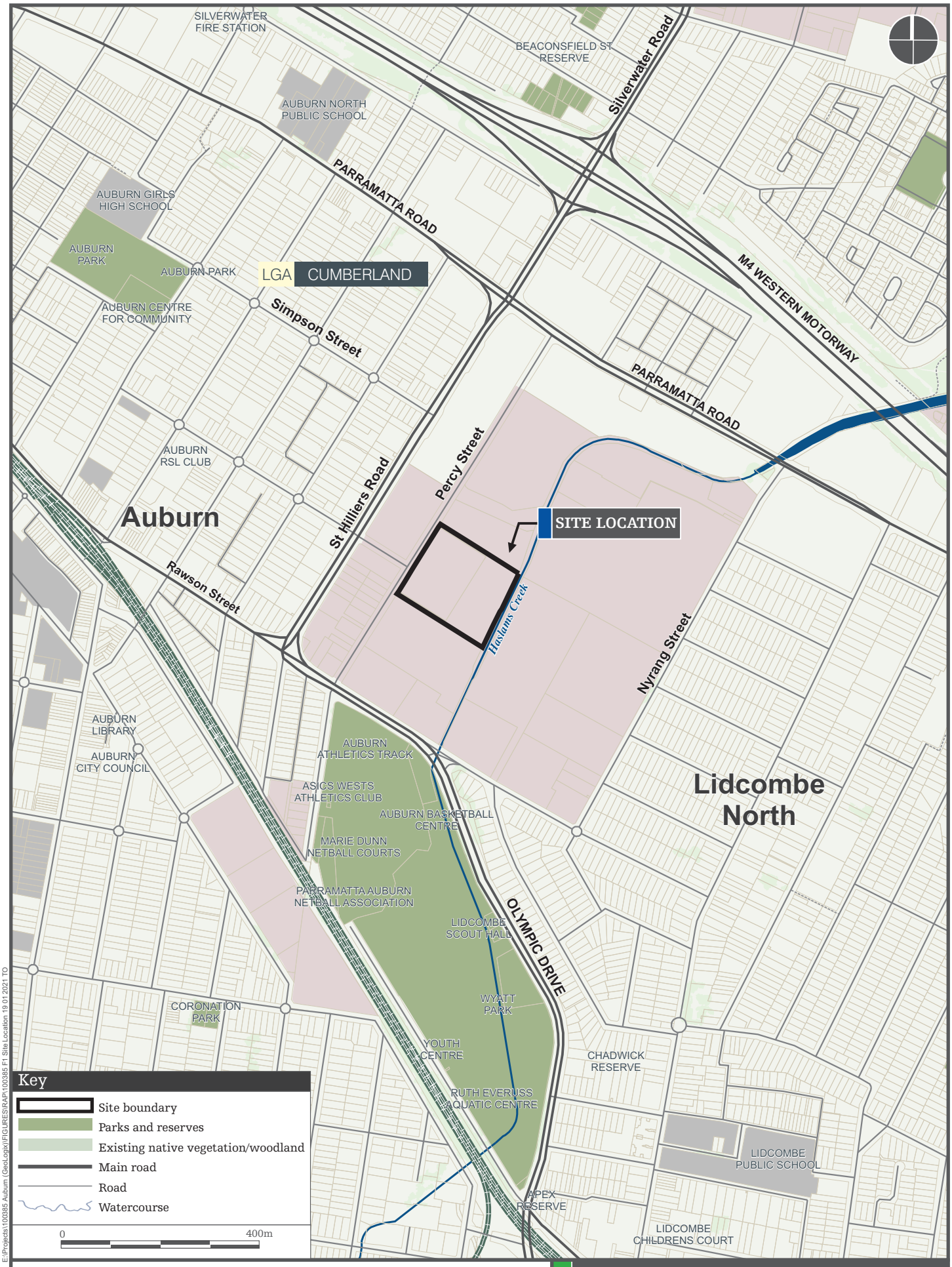
Work Health and Safety Regulation 2017 (NSW)

WSP (2012) Stage 1 & 2 Environmental Site Investigation, 11-13 Percy Street, Auburn, NSW. Revised 12 June 2012. Reference (00030196.01)

FIGURES



E:\Projects\100385 Auburn (GeoLogix\FIGURES\RAP\100385 F1 Site Location 19 01 2021 TO

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SITE VICINITY MAP

Remediation Action Plan
11-13 Percy Street, Auburn NSW

Project No. 2101002

Figure 1

E:\Projects\100385 Auburn (GeoLogix)\FIGURES\RAP\100385 F2 Site Features Map 19 01 2021

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SITE FEATURES MAP

Remediation Action Plan
11-13 Percy Street, Auburn NSW

Project No. 2101002

Figure 2

Site Features

1. Former radioactive store
2. Decommissioned UST
3. Former dangerous goods shed
4. Former cooling towers
5. Wash bay
6. AST/fuel dispenser
7. Waste oil tank
8. Former AST
9. Air compressor pump
10. Wastewater tank/former lime dosing unit
11. substation
12. Decommissioned UST
13. former grease trap & cooling towers

MW121 MW120 MW205 MW119 MW118 SV3 HP4 VP19 MW114 MW111 MIP21 SV7 MIP22 VP18 MIP18 SV2 VP17 MIP8 MW106 MW117 MW204 HP3 SV6 MIP5 MIP9 MW113 MIP7 MW112 SV1 SV13 MW104 MW107 MIP20 MIP10 GW04 HP1 SV10 MIP19 SV5 MW202 MW110 MIP6 MW108 MW203 SV12 GW1 MIP15 HP2 MW116 MW103 SV9 Former plastic raw materials silos SV4 VP6 Undercroft parking VP2 SV15 MIP16 MIP11 VP1 MW109 MIP4 SV8 SV11 VP10 MW115 GW2 MIP1 VP4 VP20 MIP17 MW201 VP9 MIP1 VP7 MW102 VP16 SV14 MIP13 Polyurethane drums/ spillage (in caged enclosure) MIP12 VP11 MIP14 VP12 MIP3 MW101

Percy Street

Hall Street

Former rail line

Retaining wall

Haslams Creek

Key

- Site boundary
- Alluvial groundwater monitoring well location
- Bedrock groundwater monitoring well location
- Hydropunch location
- MiHPT boring location
- Soil vapour well location (Geo-Logix, Oct 2019)
- Soil vapour well location (Geo-Logix, Jul 2020)

0 50m

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COMBINED SAMPLE LOCATION PLAN

Remediation Action Plan
11-13 Percy Street, Auburn NSW

Project No. 2101002

Figure 3

E:\Projects\102385 Auburn (GeoLogix\FIGURES\RAP\102385 F4 Groundwater Analytical Results 19 01 2021

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Note: Chlorinated hydrocarbon concentrations are displayed in µg/L

Bold concentrations above human health or ecosystem protection criteria

TCE: Trichloroethene
DCE: cis-1.2-dichloroethene
VC: Vinyl chloride

CHLORINATED ETHENES IN GROUNDWATER

Remediation Action Plan
11-13 Percy Street, Auburn NSW

Project No. 2101002

Figure 4

Site Features

1. Former radioactive store
2. Decommissioned UST
3. Former dangerous goods shed
4. Former cooling towers
5. Wash bay
6. AST/fuel dispenser
7. Waste oil tank
8. Former AST
9. Air compressor pump
10. Wastewater tank/former lime dosing unit
11. substation
12. Decommissioned UST
13. former grease trap & cooling towers

Hall Street

Percy Street

Former rail line

Haslams Creek

SV1 SV2 SV3 SV4 SV5 SV6 SV7 SV8 SV9 SV10 SV11 SV12 SV13 SV14 SV15

VP19: TCE: ND; PCE: ND; DCE: ND

VP18: TCE: ND; PCE: ND; DCE: ND

VP17: TCE: ND; PCE: ND; DCE: ND

VP2: TCE: 4; PCE: ND; DCE: ND

VP4: TCE: **12,000**; PCE: 21; DCE: **1,100**

VP1: TCE: 2; PCE: ND; DCE: ND

VP20: TCE: **77,000**; PCE: ND; DCE: **22,000**

VP7: TCE: ND; PCE: ND; DCE: ND

VP11: TCE: 1; PCE: ND; DCE: ND

VP12: TCE: 12; PCE: ND; DCE: ND

VP3: Not sampled

VP6: TCE: ND; PCE: ND; DCE: ND

VP10: TCE: ND; PCE: ND; DCE: ND

VP5: Not sampled

VP9: TCE: ND; PCE: ND; DCE: ND

VP16: TCE: ND; PCE: ND; DCE: ND

VP15: Not sampled

VP8: Not sampled

VP14: Not sampled

Former plastic raw materials silos

Undercroft parking

Retaining wall

Polyurethane drums/ spillage (in caged enclosure)

Proposed OSD Tank

Key

- Site boundary
- Soil vapour well location (Geo-Logix, Oct 2019)
- Soil vapour well location (Geo-Logix, Jul 2020)

0 50m

E:\Projects\100385 Auburn (GeoLogix)\FIGURES\RAP\100385 F5 Soil Vapour Analytical Results 19 01 2021

Geo-Logix
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Note:
Chlorinated hydrocarbon concentrations are displayed in µg/L
Bold results indicate concentrations above human health or ecosystem protection criteria
TCE: Trichloroethene
DCE: cis-1.2-dichloroethene
PCE: Tetrachloroethylene
VP3, VP5, VP8, VP14 and VP15 were not sampled because of saturated ground conditions

CHLORINATED ETHENES IN SOIL VAPOUR

Remediation Action Plan
11-13 Percy Street, Auburn NSW

Project No. 2101002

Figure 5

E:\Projects\100385 Auburn (GeoLogix)\FIGURES\RAP\100385 F6 Asbestos Contamination Extents 04 02 2021 Rev A

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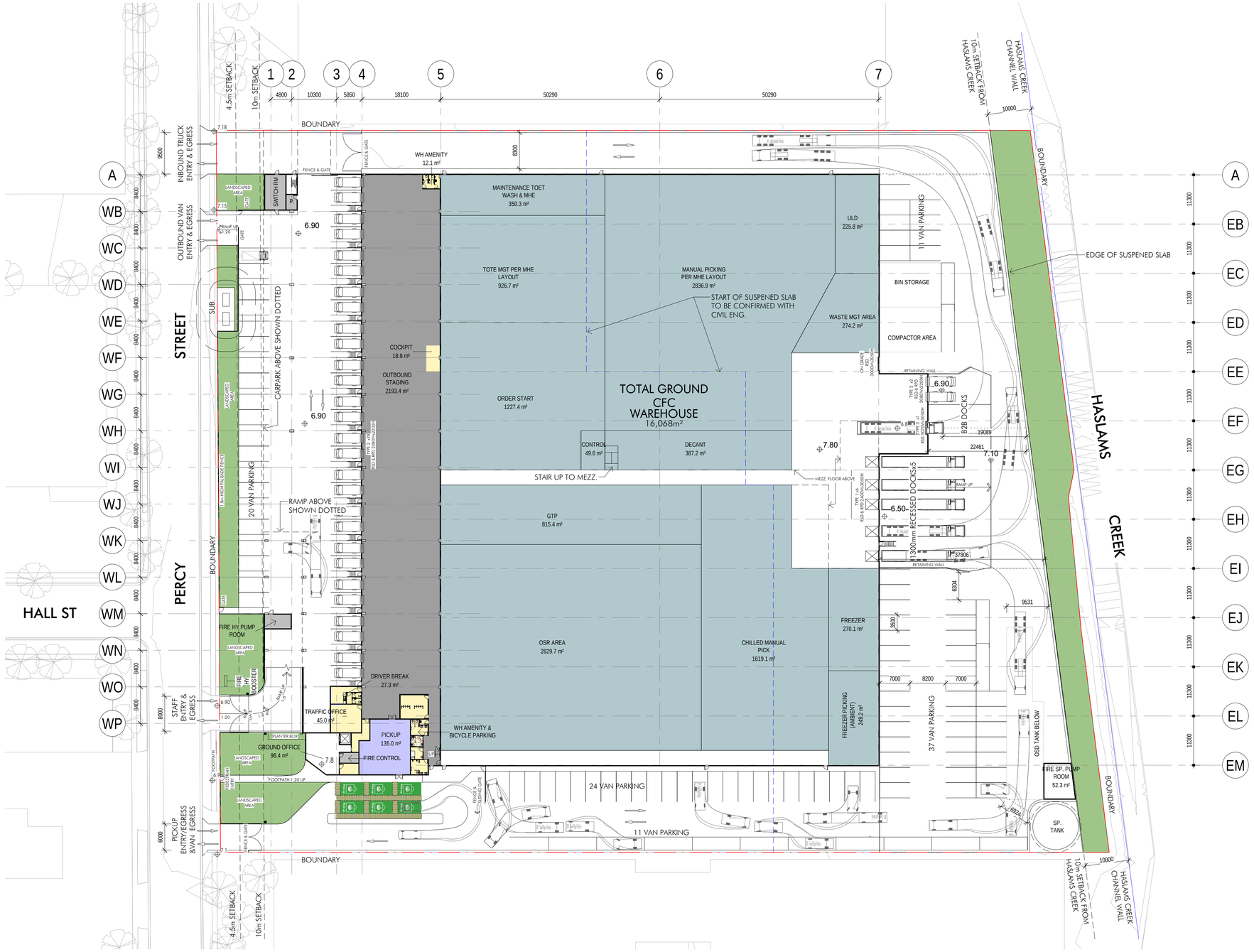
ASBESTOS CONTAMINATION EXTENTS AND POTENTIAL UST LOCATION

Remediation Action Plan
11-13 Percy Street, Auburn NSW

Project No. 2101002

Figure 6

ATTACHMENT A



AREA SCHEDULE

SITE AREA	32,453	m²
WAREHOUSE	19,250	m²
GROUND FLOOR (incl. outbound)	16,068	m²
MEZZ. FLOOR	3,182	m²
OFFICE	1,221	m²
CFC OFFICE - GROUND (incl. wh amenity, cockpit, driver break room, traffic office)	308	m²
CFC OFFICE - LEVEL 1	913	m²
PICKUP	135	m²
TOTAL AREA	20,606	m²

PARKING

STAFF PARKING	150
PICK UP BAYS	6
VAN PARKING	103
RECEIVING DOCKS 1300mm	5
DELIVERY TRUCK DOCKS 900mm	28
B2B STAGING TRUCKS (incl. 1 Figure Dock & 2 Van Loading Dock)	3

Key Plan

0 10000 25000

Issue	Description	Date
P1	Preliminary	09.09.20

Client

Client Logo

Builder

Builders Logo

Project Name
CFC Percy St. Auburn

Project Address
13 Percy Street, Auburn, NSW 2144

Drawing Title
SITE PLAN - OPTION 7

Author:	Checker:	Sheet Size:	Scale:
ES	Checker	A1	1 : 500

Drawing Number: **11250_SK038** Issue: **P1**

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ATTACHMENT B

Table 1 : Summary of Groundwater Analytical Data - Anions and Cations

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street

Auburn NSW

	Conversion Factor	Sample ID	MW102	GW04	MW108	MW201	MW202	MW203
		Zone	Alluvial	Alluvial	Alluvial	Bedrock	Bedrock	Bedrock
		Date	27/09/2019	27/09/2019	27/09/2019	27/09/2019	27/09/2019	27/09/2019
Concentrations in mg/L								
Anions								
Chloride (Cl)	-		6200	970	68	6900	7000	7700
Nitrate (NO3) as N	-		< 0.02	1	< 0.02	< 0.02	< 0.02	< 0.02
Nitrate (NO3)	4.427		ND	4	ND	ND	ND	ND
Sulphate (SO4)			340	240	5.1	38	< 5	440
Bicarbonate (HCO3) as CaCO3	-		< 20	450	800	1100	930	930
Bicarbonate (HCO3)	1.219		ND	549	975	1341	1134	1134
Carbonate (CO3) as CaCO3	-		860	< 10	< 10	< 10	< 10	< 10
Carbonate (CO3)	0.600		516	ND	ND	ND	ND	ND
Cations								
Ammonia (NH3) as N	-		5	0.14	1.6	3	8.3	2.5
Ammonia (NH3)	1.216		6.08	0.17	1.95	3.65	10.09	3.04
Calcium (Ca)	-		1000	26	40.0	330	430	250
Magnesium (Mg)	-		18	43	36	520	270	530
Sodium (Na)	-		3600	960	300	4200	3700	4400
Potassium (K)	-		150	11	6.6	33	53	31
Total Anions and Cations	-		11830	2803	1433	13366	12597	14488
Total Disolved Solids (TDS)	0.67		9680*	2460*	800*	10600*	11500*	12100*
Relative Percent Difference (RPD)	-		10%	7%	28%	12%	5%	9%

Notes:

Total concentrations in mg/L or mEq/L (as noted)
- = conversion factor not used
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
* = field measured Electrical Conductivity multiplied by 0.67 conversion factor

Table 1 : Summary of Groundwater Analytical Data - Anions and Cations

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street

Auburn NSW

	Conversion Factor	Sample ID	MW102	GW04	MW108	MW201	MW202	MW203
		Zone	Alluvial	Alluvial	Alluvial	Bedrock	Bedrock	Bedrock
		Date	27/09/2019	27/09/2019	27/09/2019	27/09/2019	27/09/2019	27/09/2019
Concentrations in mEq/L								
Anions								
Chloride (Cl)	0.0282		174.840	27.354	1.918	194.580	197.400	217.140
Nitrate (NO3)	0.0161		ND	0.071	ND	ND	ND	ND
Sulphate (SO4)	0.0208		7.07	4.992	0.11	0.79	ND	9.15
Bicarbonate (HCO3)	0.0164		ND	8.998	15.997	21.996	18.596	18.596
Carbonate (CO3)	0.0333		17.170	ND	ND	ND	ND	ND
Cations								
Ammonia (NH3)	0.0554		0.337	0.009	0.108	0.202	0.559	0.168
Calcium (Ca)	0.0499		49.900	1.297	1.996	16.467	21.457	12.475
Magnesium (Mg)	0.0823		1.481	3.539	2.963	42.796	22.221	43.619
Sodium (Na)	0.0435		156.600	41.760	13.050	182.700	160.950	191.400
Potassium (K)	0.0256		3.840	0.282	0.169	0.845	1.357	0.794
Total Anions	-		199.08	41.42	18.02	217.37	216.00	244.89
Total Cations	-		212.16	46.89	18.29	243.01	206.54	248.46
Relative Percent Difference (RPD)	-		3.2%	6.2%	0.7%	5.6%	2.2%	0.7%

Notes:

Total concentrations in mg/L or mEq/L (as noted)
- = conversion factor not used
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
* = field measured Electrical Conductivity multiplied by 0.67 conversion factor

Table 2 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	HSLs - D	HSLs - D	Management	Sample ID	MW103/0.2-0.3	MW103/1.6-1.8	MW105/0.8-1.0	MW108/1.6-1.7	MW109/1.2-1.4
	Sand	Sand	Limits	Depth (m)	0.2-0.3	1.6-1.8	0.8-1.0	1.6-1.7	1.2-1.4
	0 to <1 m	1 to <2 m	Comm/Ind	Date	30/05/2019	30/05/2019	31/05/2019	3/06/2019	3/06/2019
TRH C_6-C_{10}	-	-	800		< 20	< 20	< 20	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	260	370	-		< 20	< 20	< 20	< 20	< 20
TRH >C_{10}-C_{16}	-	-	1,000		< 50	< 50	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	NL	-		< 50	< 50	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	-	5,000		260	< 100	490	120	390
TRH >C_{34}-C_{40}	-	-	10,000		330	< 100	160	< 100	< 100
Benzene	3	3	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	NL	NL	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	NL	NL	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	-	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	-	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	230	NL	-		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Naphthalene (MAH method)	NL	NL	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Criteria 3 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, fine material.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3		
	HSLs - D	HSLs - D	Management	Sample ID	MW110/0.2-0.3
	Sand	Sand	Limits	Depth (m)	0.2-0.3
	0 to <1 m	1 to <2 m	Comm/Ind	Date	3/06/2019
TRH C_6-C_{10}	-	-	800		< 20
TRH C_6-C_{10} less BTEX (F1)	260	370	-		< 20
TRH >C_{10}-C_{16}	-	-	1,000		< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	NL	-		< 50
TRH >C_{16}-C_{34}	-	-	5,000		< 100
TRH >C_{34}-C_{40}	-	-	10,000		< 100
Benzene	3	3	-		< 0.1
Toluene	NL	NL	-		< 0.1
Ethylbenzene	NL	NL	-		< 0.1
m&p-Xylenes	-	-	-		< 0.2
o-Xylene	-	-	-		< 0.1
Xylenes - Total	230	NL	-		< 0.3
Naphthalene (MAH method)	NL	NL	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Criteria 3 = NEPC (1999) Amended, Commercial/industrial Management Limits for TPH fractions in soil, fine material.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HSLs - D	Sample ID	MW103/0.2-0.3	MW103/1.6-1.8	MW105/0.8-1.0	MW108/1.6-1.7	MW109/1.2-1.4
	Sand	Sand	Depth (m)	0.2-0.3	1.6-1.8	0.8-1.0	1.6-1.7	1.2-1.4
	0 to <1 m	1 to <2 m	Date	30/05/2019	30/05/2019	31/05/2019	3/06/2019	3/06/2019
1.1-Dichloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.1-Dichloroethene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1-Trichloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.1.1.2-Tetrachloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2-Trichloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.1.2.2-Tetrachloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dibromoethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichloropropane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichloropropane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trimethylbenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichloropropane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trimethylbenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Butanone (MEK)	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2-Propanone (Acetone)	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
4-Chlorotoluene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HSLs - D	Sample ID	MW103/0.2-0.3	MW103/1.6-1.8	MW105/0.8-1.0	MW108/1.6-1.7	MW109/1.2-1.4
	Sand	Sand	Depth (m)	0.2-0.3	1.6-1.8	0.8-1.0	1.6-1.7	1.2-1.4
	0 to <1 m	1 to <2 m	Date	30/05/2019	30/05/2019	31/05/2019	3/06/2019	3/06/2019
4-Methyl-2-pentanone (MIBK)	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Allyl chloride	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Benzene	3	3		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Bromobenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon disulfide	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon Tetrachloride	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chlorobenzene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloromethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.2-Dichloroethene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1.3-Dichloropropene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromomethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HSLs - D	Sample ID	MW103/0.2-0.3	MW103/1.6-1.8	MW105/0.8-1.0	MW108/1.6-1.7	MW109/1.2-1.4
	Sand	Sand	Depth (m)	0.2-0.3	1.6-1.8	0.8-1.0	1.6-1.7	1.2-1.4
	0 to <1 m	1 to <2 m	Date	30/05/2019	30/05/2019	31/05/2019	3/06/2019	3/06/2019
Ethylbenzene	NL	NL		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Iodomethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Isopropyl benzene (Cumene)	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m&p-Xylenes	-	-		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methylene Chloride	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-Xylene	-	-		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Styrene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	NL	NL		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1.3-Dichloropropene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Vinyl chloride	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes - Total	230	NL		< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2		
	HSLs - D	HSLs - D	Sample ID	MW110/0.2-0.3
	Sand	Sand	Depth (m)	0.2-0.3
	0 to <1 m	1 to <2 m	Date	3/06/2019
1.1-Dichloroethane	-	-		< 0.5
1.1-Dichloroethene	-	-		< 0.5
1.1.1-Trichloroethane	-	-		< 0.5
1.1.1.2-Tetrachloroethane	-	-		< 0.5
1.1.2-Trichloroethane	-	-		< 0.5
1.1.2.2-Tetrachloroethane	-	-		< 0.5
1.2-Dibromoethane	-	-		< 0.5
1.2-Dichlorobenzene	-	-		< 0.5
1.2-Dichloroethane	-	-		< 0.5
1.2-Dichloropropane	-	-		< 0.5
1.2.3-Trichloropropane	-	-		< 0.5
1.2.4-Trimethylbenzene	-	-		< 0.5
1.3-Dichlorobenzene	-	-		< 0.5
1.3-Dichloropropane	-	-		< 0.5
1.3.5-Trimethylbenzene	-	-		< 0.5
1.4-Dichlorobenzene	-	-		< 0.5
2-Butanone (MEK)	-	-		< 0.5
2-Propanone (Acetone)	-	-		< 0.5
4-Chlorotoluene	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2		
	HSLs - D	HSLs - D	Sample ID	MW110/0.2-0.3
	Sand	Sand	Depth (m)	0.2-0.3
	0 to <1 m	1 to <2 m	Date	3/06/2019
4-Methyl-2-pentanone (MIBK)	-	-		< 0.5
Allyl chloride	-	-		< 0.5
Benzene	3	3		< 0.1
Bromobenzene	-	-		< 0.5
Bromochloromethane	-	-		< 0.5
Bromodichloromethane	-	-		< 0.5
Bromoform	-	-		< 0.5
Bromomethane	-	-		< 0.5
Carbon disulfide	-	-		< 0.5
Carbon Tetrachloride	-	-		< 0.5
Chlorobenzene	-	-		< 0.5
Chloroethane	-	-		< 0.5
Chloroform	-	-		< 0.5
Chloromethane	-	-		< 0.5
cis-1.2-Dichloroethene	-	-		< 0.5
cis-1.3-Dichloropropene	-	-		< 0.5
Dibromochloromethane	-	-		< 0.5
Dibromomethane	-	-		< 0.5
Dichlorodifluoromethane	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 3 : Summary of Soil Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2		
	HSLs - D	HSLs - D	Sample ID	MW110/0.2-0.3
	Sand	Sand	Depth (m)	0.2-0.3
	0 to <1 m	1 to <2 m	Date	3/06/2019
Ethylbenzene	NL	NL		< 0.1
Iodomethane	-	-		< 0.5
Isopropyl benzene (Cumene)	-	-		< 0.5
m&p-Xylenes	-	-		< 0.2
Methylene Chloride	-	-		< 0.5
o-Xylene	-	-		< 0.1
Styrene	-	-		< 0.5
Tetrachloroethene	-	-		< 0.5
Toluene	NL	NL		< 0.1
trans-1.2-Dichloroethene	-	-		< 0.5
trans-1.3-Dichloropropene	-	-		< 0.5
Trichloroethene	-	-		< 0.5
Trichlorofluoromethane	-	-		< 0.5
Vinyl chloride	-	-		< 0.5
Xylenes - Total	230	NL		< 0.3

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
		HSLs - D	HSLs - D	Sample ID	MW103/0.2-0.3	MW103/1.6-1.8	MW105/0.8-1.0	MW108/1.6-1.7	MW109/1.2-1.4
	HILs - D	Sand	Sand	Depth (m)	0.2-0.3	1.6-1.8	0.8-1.0	1.6-1.7	1.2-1.4
		0 to <1 m	1 to <2 m	Date	30/05/2019	30/05/2019	31/05/2019	3/06/2019	3/06/2019
Acenaphthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.6
Benz(a)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	2
Benzo(a)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	2
Benzo(b&j)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	2.3
Benzo(g.h.i)perylene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	1.2
Benzo(k)fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	0.9
Chrysene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	1.7
Dibenz(a.h)anthracene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	4.1
Fluorene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	1.1
Naphthalene (PAH method)	-	NL	NL		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	2.1
Pyrene	-	-	-		< 0.5	< 0.5	< 0.5	< 0.5	3.6
Benzo(a)pyrene TEQ	40	-	-		0.6	0.6	0.6	0.6	2.9
Total PAH	4,000	-	-		< 0.5	< 0.5	< 0.5	< 0.5	21.6

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 3 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 4 : Summary of Soil Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3		
		HSLs - D	HSLs - D	Sample ID	MW110/0.2-0.3
	HILs - D	Sand	Sand	Depth (m)	0.2-0.3
		0 to <1 m	1 to <2 m	Date	3/06/2019
Acenaphthene	-	-	-		< 0.5
Acenaphthylene	-	-	-		< 0.5
Anthracene	-	-	-		< 0.5
Benz(a)anthracene	-	-	-		< 0.5
Benzo(a)pyrene	-	-	-		< 0.5
Benzo(b&j)fluoranthene	-	-	-		< 0.5
Benzo(g.h.i)perylene	-	-	-		< 0.5
Benzo(k)fluoranthene	-	-	-		< 0.5
Chrysene	-	-	-		< 0.5
Dibenz(a.h)anthracene	-	-	-		< 0.5
Fluoranthene	-	-	-		< 0.5
Fluorene	-	-	-		< 0.5
Indeno(1.2.3-cd)pyrene	-	-	-		< 0.5
Naphthalene (PAH method)	-	NL	NL		< 0.5
Phenanthrene	-	-	-		< 0.5
Pyrene	-	-	-		< 0.5
Benzo(a)pyrene TEQ	40	-	-		0.6
Total PAH	4,000	-	-		< 0.5

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 3 = NEPC (1999) Amended, 'D' Commercial/industrial Soil Health Screening Levels for vapour intrusion, sand 1 to <2m.
Total concentrations in mg/kg
- = assessment criteria not available
NL = not limiting
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 5 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1					
		Sample ID	MW103/0.2-0.3	MW103/1.6-1.8	MW105/0.8-1.0	MW108/1.6-1.7	MW109/1.2-1.4
	HILs - D	Depth (m)	0.2-0.3	1.6-1.8	0.8-1.0	1.6-1.7	1.2-1.4
		Date	30/05/2019	30/05/2019	31/05/2019	3/06/2019	3/06/2019
Arsenic	3,000		< 2	8.5	2.5	17	15
Cadmium	900		< 0.4	< 0.4	1.3	3	0.5
Chromium	3,600[1]		23	17	76	34	24
Copper	240,000		78	22	170	830	890
Lead	1,500		7.4	34	44	260	170
Mercury	730		< 0.1	< 0.1	0.4	0.1	< 0.1
Nickel	6,000		100	10	18	79	28
Zinc	400,000		80	80	95	980	670

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for chromium (VI) used conservatively.
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 5 : Summary of Soil Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1		
		Sample ID	MW110/0.2-0.3
	HILs - D	Depth (m)	0.2-0.3
		Date	3/06/2019
Arsenic	3,000		3.7
Cadmium	900		< 0.4
Chromium	3,600[1]		90
Copper	240,000		27
Lead	1,500		11
Mercury	730		< 0.1
Nickel	6,000		78
Zinc	400,000		71

Notes:

Criteria 1 = NEPC (1999) Amended, Health-based Investigation Levels for soil contaminants.
Total concentrations in mg/kg
- = assessment criteria not available
[1]Guideline for chromium (VI) used conservatively.
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 6 : Summary of Soil Vapour Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1						
	HSLs - D						
	Sand	Sample ID	SV1	DV1	RPD_DV1	SV2	SV3
	0 to <1 m	Date	3/06/2019	3/06/2019	-	3/06/2019	3/06/2019
TRH C_6-C_{10}	-		210	220	*5%*	370	1,600
TRH C_6-C_{10} less BTEX (F1)	680,000		< 10	< 10	*nc*	< 10	< 10
TRH >C_{10}-C_{16}	-		--	--	--	--	--
TRH >C_{10}-C_{16} less Naphthalene (F2)	500,000		< 10	< 10	*nc*	< 10	< 10
TRH >C_{16}-C_{34}	-		--	--	--	--	--
TRH >C_{34}-C_{40}	-		--	--	--	--	--
Benzene	4,000		< 27	< 27	*nc*	< 27	< 27
Toluene	4,800,000		210	220	*5%*	370	1,600
Ethylbenzene	1,300,000		< 3.5	< 3.5	*nc*	< 3.5	< 3.5
m&p-Xylenes	-		--	--	--	--	--
o-Xylene	-		< 3.3	< 3.3	*nc*	< 3.3	< 3.3
Xylenes - Total	840,000		ND	ND	*nc*	ND	ND
Naphthalene (MAH method)	3,000		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 6 : Summary of Soil Vapour Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1						
	HSLs - D						
	Sand	Sample ID	SV4	SV5	SV6	SV7	SV8
	0 to <1 m	Date	3/06/2019	3/06/2019	3/06/2019	3/06/2019	3/06/2019
TRH C_6-C_{10}	-		11,000	2,700	250	110	900
TRH C_6-C_{10} less BTEX (F1)	680,000		< 10	< 10	< 10	< 10	< 10
TRH >C_{10}-C_{16}	-		--	--	--	--	--
TRH >C_{10}-C_{16} less Naphthalene (F2)	500,000		< 10	< 10	< 10	< 10	< 10
TRH >C_{16}-C_{34}	-		--	--	--	--	--
TRH >C_{34}-C_{40}	-		--	--	--	--	--
Benzene	4,000		< 27	< 27	< 27	< 27	< 27
Toluene	4,800,000		11,000	2,600	250	110	900
Ethylbenzene	1,300,000		< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
m&p-Xylenes	-		--	--	--	--	--
o-Xylene	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
Xylenes - Total	840,000		ND	ND	ND	ND	ND
Naphthalene (MAH method)	3,000		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 6 : Summary of Soil Vapour Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1						
	HSLs - D						
	Sand	Sample ID	SV9	SV10	SV11	SV12	SV13
	0 to <1 m	Date	3/06/2019	3/06/2019	3/06/2019	3/06/2019	3/06/2019
TRH C_6-C_{10}	-		250	340	3,800	220	250
TRH C_6-C_{10} less BTEX (F1)	680,000		< 10	< 10	< 10	< 10	< 10
TRH >C_{10}-C_{16}	-		--	--	--	--	--
TRH >C_{10}-C_{16} less Naphthalene (F2)	500,000		< 10	< 10	< 10	< 10	< 10
TRH >C_{16}-C_{34}	-		--	--	--	--	--
TRH >C_{34}-C_{40}	-		--	--	--	--	--
Benzene	4,000		< 27	< 27	< 27	< 27	< 27
Toluene	4,800,000		180	340	3,800	220	190
Ethylbenzene	1,300,000		< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
m&p-Xylenes	-		--	--	--	--	--
o-Xylene	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
Xylenes - Total	840,000		ND	ND	ND	ND	ND
Naphthalene (MAH method)	3,000		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 6 : Summary of Soil Vapour Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1				
	HSLs - D				
	Sand	Sample ID	SV14	SV15	BLANK
	0 to <1 m	Date	3/06/2019	3/06/2019	3/06/2019
TRH C_6-C_{10}	-		500	97	< 10
TRH C_6-C_{10} less BTEX (F1)	680,000		< 10	< 10	< 10
TRH >C_{10}-C_{16}	-		--	--	--
TRH >C_{10}-C_{16} less Naphthalene (F2)	500,000		< 10	< 10	< 10
TRH >C_{16}-C_{34}	-		--	--	--
TRH >C_{34}-C_{40}	-		--	--	--
Benzene	4,000		< 27	< 27	< 27
Toluene	4,800,000		500	97	< 5
Ethylbenzene	1,300,000		< 3.5	< 3.5	< 3.5
m&p-Xylenes	-		--	--	--
o-Xylene	-		< 3.3	< 3.3	< 3.3
Xylenes - Total	840,000		ND	ND	ND
Naphthalene (MAH method)	3,000		--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HILs - D						
	Sand	Interim	Sample ID	SV1	DV1	RPD_DV1	SV2	SV3
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	-	3/06/2019	3/06/2019
1.1-Dichloroethane	-	-		< 9.5	< 9.5	*nc*	< 9.5	< 9.5
1.1-Dichloroethene	-	-		< 43	< 43	*nc*	< 43	< 43
1.1.1-Trichloroethane	-	230,000		< 9.9	< 9.9	*nc*	< 9.9	< 9.9
1.1.2-Trichloroethane	-	-		< 5.7	< 5.7	*nc*	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	-	-		< 3.3	< 3.3	*nc*	< 3.3	< 3.3
1.2-Dichlorobenzene	-	-		< 1.8	< 1.8	*nc*	< 1.8	< 1.8
1.2-Dichloroethane	-	-		< 6.6	< 6.6	*nc*	< 6.6	< 6.6
1.2.4-Trimethylbenzene	-	-		< 2.2	< 2.2	*nc*	< 2.2	< 2.2
1.3-Dichlorobenzene	-	-		< 2.1	< 2.1	*nc*	< 2.1	< 2.1
1.3.5-Trimethylbenzene	-	-		< 2.4	< 2.4	*nc*	< 2.4	< 2.4
1.4-Dichlorobenzene	-	-		< 2	< 2	*nc*	< 2	< 2
Benzene	4,000	-		< 27	< 27	*nc*	< 27	< 27
Carbon Tetrachloride	-	-		< 8.4	< 8.4	*nc*	< 8.4	< 8.4
Chlorobenzene	-	-		< 4.1	< 4.1	*nc*	< 4.1	< 4.1
Chloroform	-	-		< 7.6	< 7.6	*nc*	< 7.6	< 7.6
Chloromethane	-	-		< 50	< 50	*nc*	< 50	< 50
cis-1.2-Dichloroethene	-	300		< 7.8	< 7.8	*nc*	< 7.8	< 7.8
Ethylbenzene	1,300,000	-		< 3.5	< 3.5	*nc*	< 3.5	< 3.5
Isopropyl benzene (Cumene)	-	-		< 2.6	< 2.6	*nc*	< 2.6	< 2.6

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HILs - D						
	Sand	Interim	Sample ID	SV1	DV1	RPD_DV1	SV2	SV3
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	-	3/06/2019	3/06/2019
o-Xylene	-	-		< 3.3	< 3.3	*nc*	< 3.3	< 3.3
Styrene	-	-		< 3.3	< 3.3	*nc*	< 3.3	< 3.3
Tetrachloroethene	-	8,000		< 3.8	< 3.8	*nc*	< 3.8	< 3.8
Toluene	4,800,000	-		210	220	*5%*	370	1,600
trans-1.2-Dichloroethene	-	-		< 18	< 18	*nc*	< 18	< 18
Trichloroethene	-	80		< 5.6	< 5.6	*nc*	< 5.6	< 5.6
Vinyl chloride	-	100		< 48	< 48	*nc*	< 48	< 48
Xylenes - Total	840,000	-		ND	ND	*nc*	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HILs - D						
	Sand	Interim	Sample ID	SV4	SV5	SV6	SV7	SV8
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	3/06/2019	3/06/2019	3/06/2019
1.1-Dichloroethane	-	-		< 9.5	< 9.5	< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	-	-		< 43	< 43	< 43	< 43	< 43
1.1.1-Trichloroethane	-	230,000		< 9.9	< 9.9	< 9.9	< 9.9	< 9.9
1.1.2-Trichloroethane	-	-		< 5.7	< 5.7	< 5.7	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	-	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
1.2-Dichlorobenzene	-	-		< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	-	-		< 6.6	< 6.6	< 6.6	< 6.6	< 6.6
1.2.4-Trimethylbenzene	-	-		< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1.3-Dichlorobenzene	-	-		< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
1.3.5-Trimethylbenzene	-	-		< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
1.4-Dichlorobenzene	-	-		< 2	< 2	< 2	< 2	< 2
Benzene	4,000	-		< 27	< 27	< 27	< 27	< 27
Carbon Tetrachloride	-	-		< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
Chlorobenzene	-	-		< 4.1	< 4.1	< 4.1	< 4.1	< 4.1
Chloroform	-	-		< 7.6	< 7.6	< 7.6	< 7.6	< 7.6
Chloromethane	-	-		< 50	< 50	< 50	< 50	< 50
cis-1.2-Dichloroethene	-	300		< 7.8	< 7.8	< 7.8	< 7.8	< 7.8
Ethylbenzene	1,300,000	-		< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
Isopropyl benzene (Cumene)	-	-		< 2.6	< 2.6	< 2.6	< 2.6	< 2.6

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HILs - D						
	Sand	Interim	Sample ID	SV4	SV5	SV6	SV7	SV8
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	3/06/2019	3/06/2019	3/06/2019
o-Xylene	-	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
Styrene	-	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
Tetrachloroethene	-	8,000		< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
Toluene	4,800,000	-		11,000	2,600	250	110	900
trans-1.2-Dichloroethene	-	-		< 18	< 18	< 18	< 18	< 18
Trichloroethene	-	80		< 5.6	< 5.6	< 5.6	< 5.6	< 5.6
Vinyl chloride	-	100		< 48	< 48	< 48	< 48	< 48
Xylenes - Total	840,000	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HILs - D						
	Sand	Interim	Sample ID	SV9	SV10	SV11	SV12	SV13
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	3/06/2019	3/06/2019	3/06/2019
1.1-Dichloroethane	-	-		< 9.5	< 9.5	< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	-	-		< 43	< 43	< 43	< 43	< 43
1.1.1-Trichloroethane	-	230,000		< 9.9	< 9.9	< 9.9	< 9.9	< 9.9
1.1.2-Trichloroethane	-	-		< 5.7	< 5.7	< 5.7	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	-	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
1.2-Dichlorobenzene	-	-		< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	-	-		< 6.6	< 6.6	< 6.6	< 6.6	< 6.6
1.2.4-Trimethylbenzene	-	-		< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1.3-Dichlorobenzene	-	-		< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
1.3.5-Trimethylbenzene	-	-		< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
1.4-Dichlorobenzene	-	-		< 2	< 2	< 2	< 2	< 2
Benzene	4,000	-		< 27	< 27	< 27	< 27	< 27
Carbon Tetrachloride	-	-		< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
Chlorobenzene	-	-		< 4.1	< 4.1	< 4.1	< 4.1	< 4.1
Chloroform	-	-		< 7.6	< 7.6	< 7.6	< 7.6	< 7.6
Chloromethane	-	-		< 50	< 50	< 50	< 50	< 50
cis-1.2-Dichloroethene	-	300		< 7.8	< 7.8	< 7.8	< 7.8	< 7.8
Ethylbenzene	1,300,000	-		< 3.5	< 3.5	< 3.5	< 3.5	< 3.5
Isopropyl benzene (Cumene)	-	-		< 2.6	< 2.6	< 2.6	< 2.6	< 2.6

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	HSLs - D	HILs - D						
	Sand	Interim	Sample ID	SV9	SV10	SV11	SV12	SV13
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	3/06/2019	3/06/2019	3/06/2019
o-Xylene	-	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
Styrene	-	-		< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
Tetrachloroethene	-	8,000		< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
Toluene	4,800,000	-		180	340	3,800	220	190
trans-1.2-Dichloroethene	-	-		< 18	< 18	< 18	< 18	< 18
Trichloroethene	-	80		< 5.6	< 5.6	< 5.6	< 5.6	< 5.6
Vinyl chloride	-	100		< 48	< 48	< 48	< 48	< 48
Xylenes - Total	840,000	-		ND	ND	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2				
	HSLs - D	HILs - D				
	Sand	Interim	Sample ID	SV14	SV15	BLANK
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	3/06/2019
1.1-Dichloroethane	-	-		< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	-	-		< 43	< 43	< 43
1.1.1-Trichloroethane	-	230,000		< 9.9	< 9.9	< 9.9
1.1.2-Trichloroethane	-	-		< 5.7	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	-	-		< 3.3	< 3.3	< 3.3
1.2-Dichlorobenzene	-	-		< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	-	-		< 6.6	< 6.6	< 6.6
1.2.4-Trimethylbenzene	-	-		< 2.2	< 2.2	< 2.2
1.3-Dichlorobenzene	-	-		< 2.1	< 2.1	< 2.1
1.3.5-Trimethylbenzene	-	-		< 2.4	< 2.4	< 2.4
1.4-Dichlorobenzene	-	-		< 2	< 2	< 2
Benzene	4,000	-		< 27	< 27	< 27
Carbon Tetrachloride	-	-		< 8.4	< 8.4	< 8.4
Chlorobenzene	-	-		< 4.1	< 4.1	< 4.1
Chloroform	-	-		< 7.6	< 7.6	< 7.6
Chloromethane	-	-		< 50	< 50	< 50
cis-1.2-Dichloroethene	-	300		< 7.8	< 7.8	< 7.8
Ethylbenzene	1,300,000	-		< 3.5	< 3.5	< 3.5
Isopropyl benzene (Cumene)	-	-		< 2.6	< 2.6	< 2.6

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 7 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2				
	HSLs - D	HILs - D				
	Sand	Interim	Sample ID	SV14	SV15	BLANK
	0 to <1 m	Soil Vapour	Date	3/06/2019	3/06/2019	3/06/2019
o-Xylene	-	-		< 3.3	< 3.3	< 3.3
Styrene	-	-		< 3.3	< 3.3	< 3.3
Tetrachloroethene	-	8,000		< 3.8	< 3.8	< 3.8
Toluene	4,800,000	-		500	97	< 5
trans-1.2-Dichloroethene	-	-		< 18	< 18	< 18
Trichloroethene	-	80		< 5.6	< 5.6	< 5.6
Vinyl chloride	-	100		< 48	< 48	< 48
Xylenes - Total	840,000	-		ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Criteria 2 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
DV1 = duplicate of SV1
BLANK = blank sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 8 : Summary of Groundwater Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	GW1	GW2	GW4	MW101	MW102
	2 to <4 m	Guidelines	95%	95%	Date	6/06/2019	6/06/2019	5/06/2019	5/06/2019	5/06/2019
TRH C_6-C_{10}	-	-	-	-		30	80	1,400	< 20	13,000
TRH C_6-C_{10} less BTEX (F1)	6,000	-	-	-		30	80	1,400	< 20	**13,000**
TRH >C_{10}-C_{16}	-	-	-	-		< 50	70	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	-	-		< 50	70	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	-	-	-		< 100	< 100	< 100	< 100	< 100
TRH >C_{34}-C_{40}	-	-	-	-		< 100	< 100	< 100	< 100	< 100
Benzene	5,000	1	950	700		< 1	< 1	< 20	< 1	< 200
Toluene	NL	800	180	180		< 1	< 1	< 20	< 1	< 200
Ethylbenzene	NL	300	80	5		< 1	< 1	< 20	< 1	< 200
m&p-Xylenes	-	-	75[1]	75[1]		3	< 2	< 40	< 2	< 400
o-Xylene	-	-	350	350		1	< 1	< 20	< 1	< 200
Xylenes - Total	NL	600	-	-		5	< 3	< 60	< 3	< 600
Naphthalene (MAH method)	NL	-	16	70		< 10	< 10	< 200	< 10	< 2,000

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
[1]Guideline for m-Xylene used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 8 : Summary of Groundwater Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	MW102	MW103	MW103	MW104	DW1
	2 to <4 m	Guidelines	95%	95%	Date	18/06/2019	5/06/2019	18/06/2019	5/06/2019	5/06/2019
TRH C_6-C_{10}	-	-	-	-		--	< 20	--	170	160
TRH C_6-C_{10} less BTEX (F1)	6,000	-	-	-		--	< 20	--	170	160
TRH >C_{10}-C_{16}	-	-	-	-		--	< 50	--	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	-	-		--	< 50	--	< 50	< 50
TRH >C_{16}-C_{34}	-	-	-	-		--	< 100	--	< 100	< 100
TRH >C_{34}-C_{40}	-	-	-	-		--	< 100	--	< 100	< 100
Benzene	5,000	1	950	700		< 100	< 1	< 1	< 1	< 1
Toluene	NL	800	180	180		< 100	< 1	< 1	5	5
Ethylbenzene	NL	300	80	5		< 100	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	75[1]	75[1]		< 200	< 2	< 2	< 2	< 2
o-Xylene	-	-	350	350		< 100	< 1	< 1	< 1	< 1
Xylenes - Total	NL	600	-	-		< 300	< 3	< 3	< 3	< 3
Naphthalene (MAH method)	NL	-	16	70		--	< 10	--	< 10	< 10

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
[1]Guideline for m-Xylene used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate

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Table 8 : Summary of Groundwater Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	RPD_DW1	TW1	RPD_TW1	MW106	MW107
	2 to <4 m	Guidelines	95%	95%	Date	-	5/06/2019	-	5/06/2019	5/06/2019
TRH C_6-C_{10}	-	-	-	-		*6%*	160	*6%*	< 20	< 20
TRH C_6-C_{10} less BTEX (F1)	6,000	-	-	-		*6%*	160	*6%*	< 20	< 20
TRH >C_{10}-C_{16}	-	-	-	-		*nc*	< 50	*nc*	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	-	-		*nc*	< 50	*nc*	< 50	< 50
TRH >C_{16}-C_{34}	-	-	-	-		*nc*	< 100	*nc*	< 100	< 100
TRH >C_{34}-C_{40}	-	-	-	-		*nc*	< 100	*nc*	< 100	< 100
Benzene	5,000	1	950	700		*nc*	< 1	*nc*	< 1	< 1
Toluene	NL	800	180	180		*0%*	5	*0%*	< 1	< 1
Ethylbenzene	NL	300	80	5		*nc*	< 1	*nc*	< 1	< 1
m&p-Xylenes	-	-	75[1]	75[1]		*nc*	< 2	*nc*	< 2	< 2
o-Xylene	-	-	350	350		*nc*	< 1	*nc*	< 1	< 1
Xylenes - Total	NL	600	-	-		*nc*	< 3	*nc*	< 3	< 3
Naphthalene (MAH method)	NL	-	16	70		*nc*	< 10	*nc*	< 10	< 10

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
[1]Guideline for m-Xylene used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate

nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 8 : Summary of Groundwater Analytical Data - Petroleum Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	MW108	MW109	MW110	MW111	R1
	2 to <4 m	Guidelines	95%	95%	Date	5/06/2019	6/06/2019	5/06/2019	5/06/2019	5/06/2019
TRH C_6-C_{10}	-	-	-	-		< 20	< 20	< 20	40	< 20
TRH C_6-C_{10} less BTEX (F1)	6,000	-	-	-		< 20	< 20	< 20	40	< 20
TRH >C_{10}-C_{16}	-	-	-	-		< 50	90	< 50	< 50	< 50
TRH >C_{10}-C_{16} less Naphthalene (F2)	NL	-	-	-		< 50	90	< 50	< 50	< 50
TRH >C_{16}-C_{34}	-	-	-	-		< 100	200	< 100	< 100	< 100
TRH >C_{34}-C_{40}	-	-	-	-		< 100	< 100	< 100	< 100	< 100
Benzene	5,000	1	950	700		< 1	< 1	< 1	< 1	< 1
Toluene	NL	800	180	180		< 1	< 1	< 1	< 1	< 1
Ethylbenzene	NL	300	80	5		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	75[1]	75[1]		< 2	< 2	< 2	< 2	< 2
o-Xylene	-	-	350	350		< 1	< 1	< 1	< 1	< 1
Xylenes - Total	NL	600	-	-		< 3	< 3	< 3	< 3	< 3
Naphthalene (MAH method)	NL	-	16	70		< 10	< 10	< 10	< 10	< 10

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
[1]Guideline for m-Xylene used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate

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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	HP1	HP2	HP3	HP4	GW1
	Guidelines	95%	95%	Tapwater	Date	22-Aug-19	22-Aug-19	22-Aug-19	22-Aug-19	06-Jun-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	6
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	3
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	9	< 1	< 1	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	HP1	HP2	HP3	HP4	GW1
	Guidelines	95%	95%	Tapwater	Date	22-Aug-19	22-Aug-19	22-Aug-19	22-Aug-19	06-Jun-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	6	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	HP1	HP2	HP3	HP4	GW1
	Guidelines	95%	95%	Tapwater	Date	22-Aug-19	22-Aug-19	22-Aug-19	22-Aug-19	06-Jun-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 2	3
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 1	1
Styrene	30	-	-	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		1	< 1	1	< 1	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		< 1	< 1	< 1	< 1	< 1
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 3	5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	GW1	GW2	GW2	GW4	GW4
	Guidelines	95%	95%	Tapwater	Date	06-Jun-19	06-Jun-19	06-Jun-19	05-Jun-19	05-Jun-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	750	820
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	**260**	**180**
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 20	2
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 20	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 20	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 20	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 20	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 20	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 20	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 20	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	< 1	< 1	< 20	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 20	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
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DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	GW1	GW2	GW2	GW4	GW4
	Guidelines	95%	95%	Tapwater	Date	06-Jun-19	06-Jun-19	06-Jun-19	05-Jun-19	05-Jun-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 20	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 20	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 100	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	1,300	910
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	GW1	GW2	GW2	GW4	GW4
	Guidelines	95%	95%	Tapwater	Date	06-Jun-19	06-Jun-19	06-Jun-19	05-Jun-19	05-Jun-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 20	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	2	< 20	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 40	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 200	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 20	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	< 20	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 20	< 1
Toluene	800	-	-	-		< 1	< 1	< 1	< 20	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	25	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Trichloroethene	-	330	-	2.8		< 1	< 1	< 1	310	280
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 20	< 1
Vinyl chloride	0.3	100	-	-		< 1	< 1	< 1	**410**	**680**
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 60	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
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T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	GW4	MW101	MW101	MW102	MW102
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	05-Jun-19	26-Aug-19	05-Jun-19	18-Jun-19
1.1-Dichloroethane	-	-	-	-		330	< 1	< 1	< 200	< 100
1.1-Dichloroethene	30	700	-	-		**110**	< 1	< 1	< 200	< 100
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 200	< 100
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 200	< 100
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 200	< 100
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 200	< 100
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 200	< 100
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 200	< 100
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 200	< 100
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 200	< 100
2-Propanone (Acetone)	-	-	-	-		< 1	< 1	< 1	< 200	< 100
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 200	< 100

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
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TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
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Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	GW4	MW101	MW101	MW102	MW102
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	05-Jun-19	26-Aug-19	05-Jun-19	18-Jun-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Benzene	1	950	700	-		< 1	< 1	< 1	< 200	< 100
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Bromoform	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 200	< 100
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Chloroform	-	-	-	-		< 5	< 5	< 5	< 1,000	< 500
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
cis-1.2-Dichloroethene	-	-	-	-		380	< 1	< 1	2,000	1,900
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
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T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	GW4	MW101	MW101	MW102	MW102
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	05-Jun-19	26-Aug-19	05-Jun-19	18-Jun-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 200	< 100
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 200	< 100
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 400	< 200
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 2,000	< 1,000
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 200	< 100
Styrene	30	-	-	-		< 1	< 1	< 1	< 200	< 100
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 200	< 100
Toluene	800	-	-	-		< 1	< 1	< 1	< 200	< 100
trans-1.2-Dichloroethene	-	-	-	-		9	< 1	< 1	< 200	< 100
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Trichloroethene	-	330	-	2.8		170	< 1	< 1	8,300	6,100
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 200	< 100
Vinyl chloride	0.3	100	-	-		**160**	< 1	< 1	< 200	< 100
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 600	< 300

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
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DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW102	D2	RPD_D2	T2	RPD_T2
	Guidelines	95%	95%	Tapwater	Date	26-Aug-19	26-Aug-19	-	26-Aug-19	-
1.1-Dichloroethane	-	-	-	-		< 50	< 50	*nc*	5	*nc*
1.1-Dichloroethene	30	700	-	-		< 50	< 50	*nc*	6	*nc*
1.1.1-Trichloroethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.1.1.2-Tetrachloroethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.1.2-Trichloroethane	-	6,500	1,900	-		< 50	< 50	*nc*	14	*nc*
1.1.2.2-Tetrachloroethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.2-Dibromoethane	1	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.2-Dichlorobenzene	1,500	160	-	-		< 50	< 50	*nc*	< 1	*nc*
1.2-Dichloroethane	3	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.2-Dichloropropane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.2.3-Trichloropropane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.2.4-Trimethylbenzene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.3-Dichlorobenzene	-	260	-	-		< 50	< 50	*nc*	< 1	*nc*
1.3-Dichloropropane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.3.5-Trimethylbenzene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
1.4-Dichlorobenzene	40	60	-	-		< 50	< 50	*nc*	< 1	*nc*
2-Butanone (MEK)	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
2-Propanone (Acetone)	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
4-Chlorotoluene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
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Total concentrations in µg/L
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TW1 = triplicate of MW104 (05/06/19)
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T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
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DW2 = duplicate of MW201 (27/09/19)
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	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW102	D2	RPD_D2	T2	RPD_T2
	Guidelines	95%	95%	Tapwater	Date	26-Aug-19	26-Aug-19	-	26-Aug-19	-
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Allyl chloride	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Benzene	1	950	700	-		< 50	< 50	*nc*	< 1	*nc*
Bromobenzene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Bromochloromethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Bromodichloromethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Bromoform	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Bromomethane	1	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Carbon disulfide	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Carbon Tetrachloride	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Chlorobenzene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Chloroethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Chloroform	-	-	-	-		< 50	< 50	*nc*	< 5	*nc*
Chloromethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
cis-1.2-Dichloroethene	-	-	-	-		1,000	860	*15%*	1,000	*0%*
cis-1.3-Dichloropropene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Dibromochloromethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Dibromomethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Dichlorodifluoromethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
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T1 = triplicate of MW104 (20/08/19)
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TW3 = triplicate of MW120 (08/10/19)
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TW2 = triplicate of MW201 (27/09/19)
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nc = RPD not calculated, one or both samples below laboratory reporting limit
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	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW102	D2	RPD_D2	T2	RPD_T2
	Guidelines	95%	95%	Tapwater	Date	26-Aug-19	26-Aug-19	-	26-Aug-19	-
Ethylbenzene	300	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Iodomethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Isopropyl benzene (Cumene)	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
m&p-Xylenes	-	-	-	-		< 100	< 100	*nc*	< 2	*nc*
Methylene Chloride	4	-	-	-		< 50	< 50	*nc*	< 1	*nc*
o-Xylene	-	350	-	-		< 50	< 50	*nc*	< 1	*nc*
Styrene	30	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Tetrachloroethene	50	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Toluene	800	-	-	-		< 50	< 50	*nc*	< 1	*nc*
trans-1.2-Dichloroethene	-	-	-	-		< 50	< 50	*nc*	28	*nc*
trans-1.3-Dichloropropene	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Trichloroethene	-	330	-	2.8		2,800	2,100	*29%*	3,500	*22%*
Trichlorofluoromethane	-	-	-	-		< 50	< 50	*nc*	< 1	*nc*
Vinyl chloride	0.3	100	-	-		< 50	< 50	*nc*	**45**	*nc*
Xylenes - Total	600	-	-	-		< 150	< 150	*nc*	< 3	*nc*

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
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D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW102	MW103	MW103	MW103	MW104
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	05-Jun-19	18-Jun-19	20-Aug-19	05-Jun-19
1.1-Dichloroethane	-	-	-	-		5	< 1	< 1	< 1	29
1.1-Dichloroethene	30	700	-	-		19	< 1	< 1	< 1	22
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		10	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	< 1	< 1	< 10	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW102	MW103	MW103	MW103	MW104
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	05-Jun-19	18-Jun-19	20-Aug-19	05-Jun-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		1,200	< 1	< 1	< 1	170
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW102	MW103	MW103	MW103	MW104
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	05-Jun-19	18-Jun-19	20-Aug-19	05-Jun-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 2	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 1	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		3	< 1	< 1	< 1	5
trans-1.2-Dichloroethene	-	-	-	-		34	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		5,500	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		**33**	< 1	< 1	< 1	**26**
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

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	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	DW1	RPD_DW1	TW1	RPD_TW1	MW104
	Guidelines	95%	95%	Tapwater	Date	05-Jun-19	-	05-Jun-19	-	20-Aug-19
1.1-Dichloroethane	-	-	-	-		31	*7%*	37	*24%*	28
1.1-Dichloroethene	30	700	-	-		24	*9%*	30	*31%*	20
1.1.1-Trichloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	*nc*	< 1	*nc*	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dibromoethane	1	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dichloroethane	3	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dichloropropane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	*nc*	< 1	*nc*	< 1
1.3-Dichloropropane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	*nc*	< 1	*nc*	< 1
2-Butanone (MEK)	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	*nc*	< 5	*nc*	< 2
4-Chlorotoluene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	DW1	RPD_DW1	TW1	RPD_TW1	MW104
	Guidelines	95%	95%	Tapwater	Date	05-Jun-19	-	05-Jun-19	-	20-Aug-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Allyl chloride	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Benzene	1	950	700	-		< 1	*nc*	< 1	*nc*	< 1
Bromobenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromochloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromodichloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromoform	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromomethane	1	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Carbon disulfide	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Carbon Tetrachloride	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Chlorobenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Chloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Chloroform	-	-	-	-		< 5	*nc*	< 5	*nc*	< 5
Chloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
cis-1.2-Dichloroethene	-	-	-	-		160	*6%*	210	*21%*	160
cis-1.3-Dichloropropene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Dibromochloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Dibromomethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

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11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	DW1	RPD_DW1	TW1	RPD_TW1	MW104
	Guidelines	95%	95%	Tapwater	Date	05-Jun-19	-	05-Jun-19	-	20-Aug-19
Ethylbenzene	300	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Iodomethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
m&p-Xylenes	-	-	-	-		< 2	*nc*	< 2	*nc*	< 2
Methylene Chloride	4	-	-	-		< 1	*nc*	< 1	*nc*	< 1
o-Xylene	-	350	-	-		< 1	*nc*	< 1	*nc*	< 1
Styrene	30	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Tetrachloroethene	50	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Toluene	800	-	-	-		5	*0%*	5	*0%*	< 1
trans-1.2-Dichloroethene	-	-	-	-		3	*nc*	3	*nc*	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Trichloroethene	-	330	-	2.8		< 1	*nc*	< 1	*nc*	< 1
Trichlorofluoromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Vinyl chloride	0.3	100	-	-		**26**	*0%*	**48**	*59%*	**22**
Xylenes - Total	600	-	-	-		< 3	*nc*	< 3	*nc*	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	D1	RPD_D1	T1	RPD_T1	MW106
	Guidelines	95%	95%	Tapwater	Date	20-Aug-19	-	20-Aug-19	-	05-Jun-19
1.1-Dichloroethane	-	-	-	-		28	*0%*	28	*0%*	< 1
1.1-Dichloroethene	30	700	-	-		19	*5%*	21	*5%*	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	*nc*	< 1	*nc*	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dibromoethane	1	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dichloroethane	3	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2-Dichloropropane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	*nc*	< 1	*nc*	< 1
1.3-Dichloropropane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	*nc*	< 1	*nc*	< 1
2-Butanone (MEK)	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
2-Propanone (Acetone)	-	-	-	-		< 2	*nc*	< 1	*nc*	< 1
4-Chlorotoluene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	D1	RPD_D1	T1	RPD_T1	MW106
	Guidelines	95%	95%	Tapwater	Date	20-Aug-19	-	20-Aug-19	-	05-Jun-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Allyl chloride	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Benzene	1	950	700	-		< 1	*nc*	< 1	*nc*	< 1
Bromobenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromochloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromodichloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromoform	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Bromomethane	1	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Carbon disulfide	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Carbon Tetrachloride	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Chlorobenzene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Chloroethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Chloroform	-	-	-	-		< 5	*nc*	< 5	*nc*	< 5
Chloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
cis-1.2-Dichloroethene	-	-	-	-		150	*6%*	140	*13%*	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Dibromochloromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Dibromomethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	D1	RPD_D1	T1	RPD_T1	MW106
	Guidelines	95%	95%	Tapwater	Date	20-Aug-19	-	20-Aug-19	-	05-Jun-19
Ethylbenzene	300	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Iodomethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
m&p-Xylenes	-	-	-	-		< 2	*nc*	< 2	*nc*	< 2
Methylene Chloride	4	-	-	-		< 1	*nc*	< 1	*nc*	< 1
o-Xylene	-	350	-	-		< 1	*nc*	< 1	*nc*	< 1
Styrene	30	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Tetrachloroethene	50	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Toluene	800	-	-	-		< 1	*nc*	< 1	*nc*	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	*nc*	3	*nc*	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Trichloroethene	-	330	-	2.8		< 1	*nc*	< 1	*nc*	< 1
Trichlorofluoromethane	-	-	-	-		< 1	*nc*	< 1	*nc*	< 1
Vinyl chloride	0.3	100	-	-		**21**	*5%*	**21**	*5%*	< 1
Xylenes - Total	600	-	-	-		< 3	*nc*	< 3	*nc*	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

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	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW106	MW107	MW107	MW108	MW108
	Guidelines	95%	95%	Tapwater	Date	20-Aug-19	05-Jun-19	27-Aug-19	05-Jun-19	28-Aug-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-	-	-	-		< 5	< 1	< 1	< 1	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
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D2 = duplicate of MW102 (26/08/19)
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DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW106	MW107	MW107	MW108	MW108
	Guidelines	95%	95%	Tapwater	Date	20-Aug-19	05-Jun-19	27-Aug-19	05-Jun-19	28-Aug-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
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TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW106	MW107	MW107	MW108	MW108
	Guidelines	95%	95%	Tapwater	Date	20-Aug-19	05-Jun-19	27-Aug-19	05-Jun-19	28-Aug-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 2	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 1	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		< 1	< 1	< 1	< 1	< 1
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
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T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW108	MW109	MW109	MW110	MW110
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	06-Jun-19	28-Aug-19	05-Jun-19	27-Aug-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
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TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW108	MW109	MW109	MW110	MW110
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	06-Jun-19	28-Aug-19	05-Jun-19	27-Aug-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
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TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
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	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW108	MW109	MW109	MW110	MW110
	Guidelines	95%	95%	Tapwater	Date	27-Sep-19	06-Jun-19	28-Aug-19	05-Jun-19	27-Aug-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 2	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 1	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		< 1	< 1	< 1	< 1	< 1
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
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TW1 = triplicate of MW104 (05/06/19)
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T1 = triplicate of MW104 (20/08/19)
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DW2 = duplicate of MW201 (27/09/19)
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Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW111	MW111	MW112	MW113	MW114
	Guidelines	95%	95%	Tapwater	Date	05-Jun-19	20-Aug-19	26-Aug-19	27-Aug-19	27-Aug-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW111	MW111	MW112	MW113	MW114
	Guidelines	95%	95%	Tapwater	Date	05-Jun-19	20-Aug-19	26-Aug-19	27-Aug-19	27-Aug-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		24	22	< 1	< 1	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW111	MW111	MW112	MW113	MW114
	Guidelines	95%	95%	Tapwater	Date	05-Jun-19	20-Aug-19	26-Aug-19	27-Aug-19	27-Aug-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 2	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 1	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.2-Dichloroethene	-	-	-	-		2	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		13	11	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		**9**	**7**	< 1	< 1	< 1
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW115	MW116	MW117	MW118	MW119
	Guidelines	95%	95%	Tapwater	Date	27-Aug-19	26-Aug-19	08-Oct-19	08-Oct-19	08-Oct-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-	-	-	-		4	13	1	16	3
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
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T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
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11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW115	MW116	MW117	MW118	MW119
	Guidelines	95%	95%	Tapwater	Date	27-Aug-19	26-Aug-19	08-Oct-19	08-Oct-19	08-Oct-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
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Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

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11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW115	MW116	MW117	MW118	MW119
	Guidelines	95%	95%	Tapwater	Date	27-Aug-19	26-Aug-19	08-Oct-19	08-Oct-19	08-Oct-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	< 2	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	< 1	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		< 1	< 1	< 1	< 1	< 1
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW120	DW3	RPD_DW3	TW3	RPD_TW3
	Guidelines	95%	95%	Tapwater	Date	08-Oct-19	08-Oct-19	-	08-Oct-19	-
1.1-Dichloroethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.1-Dichloroethene	30	700	-	-		< 1	< 1	*nc*	< 1	*nc*
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	*nc*	< 1	*nc*
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.2-Dibromoethane	1	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	*nc*	< 1	*nc*
1.2-Dichloroethane	3	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.2-Dichloropropane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.2.4-Trimethylbenzene	-	-	-	-		2	2	*0%*	1	*67%*
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	*nc*	< 1	*nc*
1.3-Dichloropropane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	*nc*	< 1	*nc*
2-Butanone (MEK)	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
2-Propanone (Acetone)	-	-	-	-		3	3	*0%*	< 1	*nc*
4-Chlorotoluene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
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TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
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Detailed Site Investigation

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	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW120	DW3	RPD_DW3	TW3	RPD_TW3
	Guidelines	95%	95%	Tapwater	Date	08-Oct-19	08-Oct-19	-	08-Oct-19	-
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Allyl chloride	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Benzene	1	950	700	-		< 1	< 1	*nc*	< 1	*nc*
Bromobenzene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Bromochloromethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Bromodichloromethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Bromoform	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Bromomethane	1	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Carbon disulfide	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Carbon Tetrachloride	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Chlorobenzene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Chloroethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Chloroform	-	-	-	-		< 5	< 5	*nc*	< 5	*nc*
Chloromethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Dibromochloromethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Dibromomethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
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Total concentrations in µg/L
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T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW120	DW3	RPD_DW3	TW3	RPD_TW3
	Guidelines	95%	95%	Tapwater	Date	08-Oct-19	08-Oct-19	-	08-Oct-19	-
Ethylbenzene	300	-	-	-		1	2	*67%*	< 1	*nc*
Iodomethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Isopropyl benzene (Cumene)	-	-	-	-		5	5	*0%*	3	*50%*
m&p-Xylenes	-	-	-	-		< 2	< 2	*nc*	< 2	*nc*
Methylene Chloride	4	-	-	-		< 1	< 1	*nc*	< 1	*nc*
o-Xylene	-	350	-	-		1	1	*0%*	< 1	*nc*
Styrene	30	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Tetrachloroethene	50	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Toluene	800	-	-	-		< 1	< 1	*nc*	< 1	*nc*
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Trichloroethene	-	330	-	2.8		< 1	< 1	*nc*	< 1	*nc*
Trichlorofluoromethane	-	-	-	-		< 1	< 1	*nc*	< 1	*nc*
Vinyl chloride	0.3	100	-	-		< 1	< 1	*nc*	< 1	*nc*
Xylenes - Total	600	-	-	-		< 3	3	*nc*	< 3	*nc*

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW121	MW201	DW2	RPD_DW2	TW2
	Guidelines	95%	95%	Tapwater	Date	08-Oct-19	27-Sep-19	27-Sep-19	-	27-Sep-19
1.1-Dichloroethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.1-Dichloroethene	30	700	-	-		< 1	< 1	< 1	*nc*	< 1
1.1.1-Trichloroethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		< 1	< 1	< 1	*nc*	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.2-Dibromoethane	1	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.2-Dichlorobenzene	1,500	160	-	-		< 1	< 1	< 1	*nc*	< 1
1.2-Dichloroethane	3	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.2-Dichloropropane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.2.3-Trichloropropane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.2.4-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.3-Dichlorobenzene	-	260	-	-		< 1	< 1	< 1	*nc*	< 1
1.3-Dichloropropane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.3.5-Trimethylbenzene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
1.4-Dichlorobenzene	40	60	-	-		< 1	< 1	< 1	*nc*	< 1
2-Butanone (MEK)	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
2-Propanone (Acetone)	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
4-Chlorotoluene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW121	MW201	DW2	RPD_DW2	TW2
	Guidelines	95%	95%	Tapwater	Date	08-Oct-19	27-Sep-19	27-Sep-19	-	27-Sep-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Allyl chloride	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Benzene	1	950	700	-		< 1	< 1	< 1	*nc*	< 1
Bromobenzene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Bromochloromethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Bromodichloromethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Bromoform	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Bromomethane	1	-	-	-		< 1	< 1	< 1	*nc*	< 1
Carbon disulfide	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Carbon Tetrachloride	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Chlorobenzene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Chloroethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Chloroform	-	-	-	-		< 5	< 5	< 5	*nc*	< 5
Chloromethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
cis-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
cis-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Dibromochloromethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Dibromomethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Dichlorodifluoromethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	MW121	MW201	DW2	RPD_DW2	TW2
	Guidelines	95%	95%	Tapwater	Date	08-Oct-19	27-Sep-19	27-Sep-19	-	27-Sep-19
Ethylbenzene	300	-	-	-		< 1	< 1	< 1	*nc*	< 1
Iodomethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Isopropyl benzene (Cumene)	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
m&p-Xylenes	-	-	-	-		< 2	< 2	< 2	*nc*	< 2
Methylene Chloride	4	-	-	-		< 1	< 1	< 1	*nc*	< 1
o-Xylene	-	350	-	-		< 1	< 1	< 1	*nc*	< 1
Styrene	30	-	-	-		< 1	< 1	< 1	*nc*	< 1
Tetrachloroethene	50	-	-	-		< 1	< 1	< 1	*nc*	< 1
Toluene	800	-	-	-		< 1	< 1	< 1	*nc*	< 1
trans-1.2-Dichloroethene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
trans-1.3-Dichloropropene	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Trichloroethene	-	330	-	2.8		< 1	< 1	< 1	*nc*	< 1
Trichlorofluoromethane	-	-	-	-		< 1	< 1	< 1	*nc*	< 1
Vinyl chloride	0.3	100	-	-		< 1	< 1	< 1	*nc*	< 1
Xylenes - Total	600	-	-	-		< 3	< 3	< 3	*nc*	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	RPD_TW2	MW202	MW203	MW204	MW205
	Guidelines	95%	95%	Tapwater	Date	-	27-Sep-19	27-Sep-19	08-Oct-19	08-Oct-19
1.1-Dichloroethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.1-Dichloroethene	30	700	-	-		*nc*	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-	6,500	1,900	-		*nc*	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.2-Dibromoethane	1	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	1,500	160	-	-		*nc*	< 1	< 1	< 1	< 1
1.2-Dichloroethane	3	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-	260	-	-		*nc*	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	40	60	-	-		*nc*	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-	-	-	-		*nc*	< 1	< 1	< 1	< 4
2-Propanone (Acetone)	-	-	-	-		*nc*	< 1	< 1	9	< 10
4-Chlorotoluene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	RPD_TW2	MW202	MW203	MW204	MW205
	Guidelines	95%	95%	Tapwater	Date	-	27-Sep-19	27-Sep-19	08-Oct-19	08-Oct-19
4-Methyl-2-pentanone (MIBK)	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Allyl chloride	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Benzene	1	950	700	-		*nc*	< 1	< 1	< 1	< 1
Bromobenzene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Bromochloromethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Bromodichloromethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Bromoform	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Bromomethane	1	-	-	-		*nc*	< 1	< 1	< 1	< 1
Carbon disulfide	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Chlorobenzene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Chloroethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Chloroform	-	-	-	-		*nc*	< 5	< 5	< 5	< 5
Chloromethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
cis-1.3-Dichloropropene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Dibromochloromethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Dibromomethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 9 : Summary of Groundwater Analytical Data - Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	Drinking	ANZECC	ANZECC	RSL						
	Water	Freshwater	Marine Water	Resident	Sample ID	RPD_TW2	MW202	MW203	MW204	MW205
	Guidelines	95%	95%	Tapwater	Date	-	27-Sep-19	27-Sep-19	08-Oct-19	08-Oct-19
Ethylbenzene	300	-	-	-		*nc*	< 1	< 1	< 1	< 1
Iodomethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
m&p-Xylenes	-	-	-	-		*nc*	< 2	< 2	< 2	< 2
Methylene Chloride	4	-	-	-		*nc*	< 1	< 1	< 1	< 1
o-Xylene	-	350	-	-		*nc*	< 1	< 1	1	1
Styrene	30	-	-	-		*nc*	< 1	< 1	< 1	< 1
Tetrachloroethene	50	-	-	-		*nc*	< 1	< 1	< 1	< 1
Toluene	800	-	-	-		*nc*	< 1	< 1	2	2
trans-1.2-Dichloroethene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Trichloroethene	-	330	-	2.8		*nc*	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-	-	-	-		*nc*	< 1	< 1	< 1	< 1
Vinyl chloride	0.3	100	-	-		*nc*	< 1	< 1	< 1	< 1
Xylenes - Total	600	-	-	-		*nc*	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011
Criteria 2 = ANZECC 2000 FW 95%
Criteria 3 = ANZECC 2000 MW 95%
Criteria 4 = US EPA (2019) Regional Screening Level (RSL), Generic Tables, Resident Tapwater
Total concentrations in µg/L
- = assessment criteria not available
D2 = duplicate of MW102 (26/08/19)
T2 = triplicate of MW102 (26/08/19)
DW1 = duplicate of MW104 (05/06/19)
TW1 = triplicate of MW104 (05/06/19)
D1 = duplicate of MW104 (20/08/19)
T1 = triplicate of MW104 (20/08/19)
DW3 = duplicate of MW120 (08/10/19)
TW3 = triplicate of MW120 (08/10/19)
DW2 = duplicate of MW201 (27/09/19)
TW2 = triplicate of MW201 (27/09/19)
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	GW1	GW2	GW4	MW101	MW102
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019	5/06/2019	5/06/2019
2-Chloronaphthalene	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	300	490	340		< 3	< 3	< 3	< 3	< 3
2-Methylnaphthalene	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	-	-	-		< 3	< 3	< 3	< 3	< 3
2-Naphthylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Nitroaniline	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Nitrophenol	-	-	-		< 10	< 10	< 10	< 10	< 10
3&4-Methylphenol (m&p-Cresol)	-	-	-		< 6	< 6	< 6	< 6	< 6
3-Methylcholanthrene	-	-	-		< 5	< 5	< 5	< 5	< 5
4.4'-DDD	-	-	-		< 5	< 5	< 5	< 5	< 5
4.4'-DDE	-	-	-		< 5	< 5	< 5	< 5	< 5
4.4'-DDT	9	0.01	0.0004		< 5	< 5	< 5	< 5	< 5
4-Aminobiphenyl	-	-	-		< 5	< 5	< 5	< 5	< 5
4-Bromophenyl phenyl ether	-	-	-		< 5	< 5	< 5	< 5	< 5
4-Chloro-3-methylphenol	-	-	-		< 10	< 10	< 10	< 10	< 10
4-Chlorophenyl phenyl ether	-	-	-		< 5	< 5	< 5	< 5	< 5
4-Nitrophenol	-	-	-		< 30	< 30	< 30	< 30	< 30
Acetophenone	-	-	-		< 5	< 5	< 5	< 5	< 5
Aldrin	-	-	-		< 5	< 5	< 5	< 5	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values.
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
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-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	GW1	GW2	GW4	MW101	MW102
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019	5/06/2019	5/06/2019
Aniline	-	250	8		< 5	< 5	< 5	< 5	< 5
Bis(2-chloroethoxy)methane	-	-	-		< 5	< 5	< 5	< 5	< 5
Bis(2-ethylhexyl)phthalate	10	-	-		< 5	< 5	< 5	< 5	< 5
Butyl benzyl phthalate	-	-	-		< 5	< 5	< 5	< 5	< 5
d-BHC	-	-	-		< 5	< 5	< 5	< 5	< 5
Dibenzofuran	-	-	-		< 5	< 5	< 5	< 5	< 5
Dieldrin	-	-	-		< 5	< 5	< 5	< 5	< 5
Diethyl phthalate	-	1,000	-		< 5	< 5	< 5	< 5	< 5
Dimethyl phthalate	-	3,700	-		< 5	< 5	< 5	< 5	< 5
Di-n-butyl phthalate	-	26	-		< 5	< 5	< 5	< 5	< 5
Di-n-octyl phthalate	-	-	-		< 5	< 5	< 5	< 5	< 5
Diphenylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
Endosulfan sulphate	-	-	-		< 5	< 5	< 5	< 5	< 5
Endrin	-	0.02	0.008		< 5	< 5	< 5	< 5	< 5
Endrin aldehyde	-	-	-		< 5	< 5	< 5	< 5	< 5
Endrin ketone	-	-	-		< 5	< 5	< 5	< 5	< 5
g-BHC (Lindane)	10	0.2	0.007		< 5	< 5	< 5	< 5	< 5
Heptachlor	0.3	0.09	0.0004		< 5	< 5	< 5	< 5	< 5
Heptachlor epoxide	-	-	-		< 5	< 5	< 5	< 5	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values.
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	GW1	GW2	GW4	MW101	MW102
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019	5/06/2019	5/06/2019
Hexachlorobenzene	-	-	-		< 5	< 5	< 5	< 5	< 5
Hexachlorobutadiene	0.7	-	-		< 5	< 5	< 5	< 5	< 5
Hexachlorocyclopentadiene	-	-	-		< 5	< 5	< 5	< 5	< 5
Hexachloroethane	-	360	290		< 5	< 5	< 5	< 5	< 5
Methoxychlor	300	0.005	0.004		< 5	< 5	< 5	< 5	< 5
Nitrobenzene	-	550	550		< 50	< 50	< 50	< 50	< 50
N-Nitrosodibutylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
N-Nitrosodipropylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
N-Nitrosopiperidine	-	-	-		< 5	< 5	< 5	< 5	< 5
Pentachlorobenzene	-	-	-		< 5	< 5	< 5	< 5	< 5
Pentachloronitrobenzene	30	-	-		< 5	< 5	< 5	< 5	< 5
Pentachlorophenol	10	10	22		< 10	< 10	< 10	< 10	< 10
Phenol	-	320	400		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values.
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	MW103	MW104	MW106	MW107	MW108
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019	5/06/2019	5/06/2019
2-Chloronaphthalene	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Chlorophenol	300	490	340		< 3	< 3	< 3	< 3	< 3
2-Methylnaphthalene	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	-	-	-		< 3	< 3	< 3	< 3	< 3
2-Naphthylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Nitroaniline	-	-	-		< 5	< 5	< 5	< 5	< 5
2-Nitrophenol	-	-	-		< 10	< 10	< 10	< 10	< 10
3&4-Methylphenol (m&p-Cresol)	-	-	-		< 6	< 6	< 6	< 6	< 6
3-Methylcholanthrene	-	-	-		< 5	< 5	< 5	< 5	< 5
4.4'-DDD	-	-	-		< 5	< 5	< 5	< 5	< 5
4.4'-DDE	-	-	-		< 5	< 5	< 5	< 5	< 5
4.4'-DDT	9	0.01	0.0004		< 5	< 5	< 5	< 5	< 5
4-Aminobiphenyl	-	-	-		< 5	< 5	< 5	< 5	< 5
4-Bromophenyl phenyl ether	-	-	-		< 5	< 5	< 5	< 5	< 5
4-Chloro-3-methylphenol	-	-	-		< 10	< 10	< 10	< 10	< 10
4-Chlorophenyl phenyl ether	-	-	-		< 5	< 5	< 5	< 5	< 5
4-Nitrophenol	-	-	-		< 30	< 30	< 30	< 30	< 30
Acetophenone	-	-	-		< 5	< 5	< 5	< 5	< 5
Aldrin	-	-	-		< 5	< 5	< 5	< 5	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values.
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Total concentrations in µg/L
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	MW103	MW104	MW106	MW107	MW108
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019	5/06/2019	5/06/2019
Aniline	-	250	8		< 5	< 5	< 5	< 5	< 5
Bis(2-chloroethoxy)methane	-	-	-		< 5	< 5	< 5	< 5	< 5
Bis(2-ethylhexyl)phthalate	10	-	-		< 5	< 5	< 5	< 5	< 5
Butyl benzyl phthalate	-	-	-		< 5	< 5	< 5	< 5	< 5
d-BHC	-	-	-		< 5	< 5	< 5	< 5	< 5
Dibenzofuran	-	-	-		< 5	< 5	< 5	< 5	< 5
Dieldrin	-	-	-		< 5	< 5	< 5	< 5	< 5
Diethyl phthalate	-	1,000	-		< 5	< 5	< 5	< 5	< 5
Dimethyl phthalate	-	3,700	-		< 5	< 5	< 5	< 5	< 5
Di-n-butyl phthalate	-	26	-		< 5	< 5	< 5	< 5	< 5
Di-n-octyl phthalate	-	-	-		< 5	< 5	< 5	< 5	< 5
Diphenylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
Endosulfan sulphate	-	-	-		< 5	< 5	< 5	< 5	< 5
Endrin	-	0.02	0.008		< 5	< 5	< 5	< 5	< 5
Endrin aldehyde	-	-	-		< 5	< 5	< 5	< 5	< 5
Endrin ketone	-	-	-		< 5	< 5	< 5	< 5	< 5
g-BHC (Lindane)	10	0.2	0.007		< 5	< 5	< 5	< 5	< 5
Heptachlor	0.3	0.09	0.0004		< 5	< 5	< 5	< 5	< 5
Heptachlor epoxide	-	-	-		< 5	< 5	< 5	< 5	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
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Total concentrations in µg/L
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	MW103	MW104	MW106	MW107	MW108
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019	5/06/2019	5/06/2019
Hexachlorobenzene	-	-	-		< 5	< 5	< 5	< 5	< 5
Hexachlorobutadiene	0.7	-	-		< 5	< 5	< 5	< 5	< 5
Hexachlorocyclopentadiene	-	-	-		< 5	< 5	< 5	< 5	< 5
Hexachloroethane	-	360	290		< 5	< 5	< 5	< 5	< 5
Methoxychlor	300	0.005	0.004		< 5	< 5	< 5	< 5	< 5
Nitrobenzene	-	550	550		< 50	< 50	< 50	< 50	< 50
N-Nitrosodibutylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
N-Nitrosodipropylamine	-	-	-		< 5	< 5	< 5	< 5	< 5
N-Nitrosopiperidine	-	-	-		< 5	< 5	< 5	< 5	< 5
Pentachlorobenzene	-	-	-		< 5	< 5	< 5	< 5	< 5
Pentachloronitrobenzene	30	-	-		< 5	< 5	< 5	< 5	< 5
Pentachlorophenol	10	10	22		< 10	< 10	< 10	< 10	< 10
Phenol	-	320	400		< 3	< 3	< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3				
	Drinking	ANZECC	ANZECC				
	Water	Freshwater	Marine Water	Sample ID	MW109	MW110	MW111
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019
2-Chloronaphthalene	-	-	-		< 5	< 5	< 5
2-Chlorophenol	300	490	340		< 3	< 3	< 3
2-Methylnaphthalene	-	-	-		< 5	< 5	< 5
2-Methylphenol (o-Cresol)	-	-	-		< 3	< 3	< 3
2-Naphthylamine	-	-	-		< 5	< 5	< 5
2-Nitroaniline	-	-	-		< 5	< 5	< 5
2-Nitrophenol	-	-	-		< 10	< 10	< 10
3&4-Methylphenol (m&p-Cresol)	-	-	-		< 6	< 6	< 6
3-Methylcholanthrene	-	-	-		< 5	< 5	< 5
4.4'-DDD	-	-	-		< 5	< 5	< 5
4.4'-DDE	-	-	-		< 5	< 5	< 5
4.4'-DDT	9	0.01	0.0004		< 5	< 5	< 5
4-Aminobiphenyl	-	-	-		< 5	< 5	< 5
4-Bromophenyl phenyl ether	-	-	-		< 5	< 5	< 5
4-Chloro-3-methylphenol	-	-	-		< 10	< 10	< 10
4-Chlorophenyl phenyl ether	-	-	-		< 5	< 5	< 5
4-Nitrophenol	-	-	-		< 30	< 30	< 30
Acetophenone	-	-	-		< 5	< 5	< 5
Aldrin	-	-	-		< 5	< 5	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3				
	Drinking	ANZECC	ANZECC				
	Water	Freshwater	Marine Water	Sample ID	MW109	MW110	MW111
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019
Aniline	-	250	8		< 5	< 5	< 5
Bis(2-chloroethoxy)methane	-	-	-		< 5	< 5	< 5
Bis(2-ethylhexyl)phthalate	10	-	-		< 5	< 5	< 5
Butyl benzyl phthalate	-	-	-		< 5	< 5	< 5
d-BHC	-	-	-		< 5	< 5	< 5
Dibenzofuran	-	-	-		< 5	< 5	< 5
Dieldrin	-	-	-		< 5	< 5	< 5
Diethyl phthalate	-	1,000	-		< 5	< 5	< 5
Dimethyl phthalate	-	3,700	-		< 5	< 5	< 5
Di-n-butyl phthalate	-	26	-		< 5	< 5	< 5
Di-n-octyl phthalate	-	-	-		< 5	< 5	< 5
Diphenylamine	-	-	-		< 5	< 5	< 5
Endosulfan sulphate	-	-	-		< 5	< 5	< 5
Endrin	-	0.02	0.008		< 5	< 5	< 5
Endrin aldehyde	-	-	-		< 5	< 5	< 5
Endrin ketone	-	-	-		< 5	< 5	< 5
g-BHC (Lindane)	10	0.2	0.007		< 5	< 5	< 5
Heptachlor	0.3	0.09	0.0004		< 5	< 5	< 5
Heptachlor epoxide	-	-	-		< 5	< 5	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
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Total concentrations in µg/L
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Table 10 : Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3				
	Drinking	ANZECC	ANZECC				
	Water	Freshwater	Marine Water	Sample ID	MW109	MW110	MW111
	Guidelines	95%	95%	Date	5/06/2019	5/06/2019	5/06/2019
Hexachlorobenzene	-	-	-		< 5	< 5	< 5
Hexachlorobutadiene	0.7	-	-		< 5	< 5	< 5
Hexachlorocyclopentadiene	-	-	-		< 5	< 5	< 5
Hexachloroethane	-	360	290		< 5	< 5	< 5
Methoxychlor	300	0.005	0.004		< 5	< 5	< 5
Nitrobenzene	-	550	550		< 50	< 50	< 50
N-Nitrosodibutylamine	-	-	-		< 5	< 5	< 5
N-Nitrosodipropylamine	-	-	-		< 5	< 5	< 5
N-Nitrosopiperidine	-	-	-		< 5	< 5	< 5
Pentachlorobenzene	-	-	-		< 5	< 5	< 5
Pentachloronitrobenzene	30	-	-		< 5	< 5	< 5
Pentachlorophenol	10	10	22		< 10	< 10	< 10
Phenol	-	320	400		< 3	< 3	< 3

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values.
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 11 : Summary of Groundwater Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	GW1	GW2	GW4	MW101	MW102
	2 to <4 m	Guidelines	95%	95%	Date	6/06/2019	6/06/2019	5/06/2019	5/06/2019	5/06/2019
Acenaphthene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Acenaphthylene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Anthracene	-	-	0.4	0.1		< 1	< 1	< 1	< 1	< 1
Benz(a)anthracene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzo(a)pyrene	-	0.01	-	-		< 1	< 1	< 1	< 1	< 1
Benzo(b&j)fluoranthene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzo(g.h.i)perylene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzo(k)fluoranthene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Chrysene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Dibenz(a.h)anthracene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Fluoranthene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Fluorene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Naphthalene (PAH method)	NL	-	16	70		< 1	< 1	< 1	< 1	< 1
Phenanthrene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Pyrene	-	-	-	-		< 1	< 1	< 1	< 1	< 1
Benzo(a)pyrene TEQ	-	-	-	-		--	--	--	--	--
Total PAH	-	-	-	-		< 1	< 1	< 1	< 1	< 1

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 11 : Summary of Groundwater Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	MW102	MW103	MW103	MW104	DW1
	2 to <4 m	Guidelines	95%	95%	Date	18/06/2019	5/06/2019	18/06/2019	5/06/2019	5/06/2019
Acenaphthene	-	-	-	-		--	< 1	--	< 1	< 1
Acenaphthylene	-	-	-	-		--	< 1	--	< 1	< 1
Anthracene	-	-	0.4	0.1		--	< 1	--	< 1	< 1
Benz(a)anthracene	-	-	-	-		--	< 1	--	< 1	< 1
Benzo(a)pyrene	-	0.01	-	-		--	< 1	--	< 1	< 1
Benzo(b&j)fluoranthene	-	-	-	-		--	< 1	--	< 1	< 1
Benzo(g.h.i)perylene	-	-	-	-		--	< 1	--	< 1	< 1
Benzo(k)fluoranthene	-	-	-	-		--	< 1	--	< 1	< 1
Chrysene	-	-	-	-		--	< 1	--	< 1	< 1
Dibenz(a.h)anthracene	-	-	-	-		--	< 1	--	< 1	< 1
Fluoranthene	-	-	-	-		--	< 1	--	< 1	< 1
Fluorene	-	-	-	-		--	< 1	--	< 1	< 1
Indeno(1.2.3-cd)pyrene	-	-	-	-		--	< 1	--	< 1	< 1
Naphthalene (PAH method)	NL	-	16	70		--	< 1	--	< 1	< 1
Phenanthrene	-	-	-	-		--	< 1	--	< 1	< 1
Pyrene	-	-	-	-		--	< 1	--	< 1	< 1
Benzo(a)pyrene TEQ	-	-	-	-		--	--	--	--	--
Total PAH	-	-	-	-		--	< 1	--	< 1	< 1

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
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Table 11 : Summary of Groundwater Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	RPD_DW1	TW1	RPD_TW1	MW106	MW107
	2 to <4 m	Guidelines	95%	95%	Date	-	5/06/2019	-	5/06/2019	5/06/2019
Acenaphthene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Acenaphthylene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Anthracene	-	-	0.4	0.1		*nc*	< 1	*nc*	< 1	< 1
Benz(a)anthracene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Benzo(a)pyrene	-	0.01	-	-		*nc*	< 1	*nc*	< 1	< 1
Benzo(b&j)fluoranthene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Benzo(g.h.i)perylene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Benzo(k)fluoranthene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Chrysene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Dibenz(a.h)anthracene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Fluoranthene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Fluorene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Indeno(1.2.3-cd)pyrene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Naphthalene (PAH method)	NL	-	16	70		*nc*	< 1	*nc*	< 1	< 1
Phenanthrene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Pyrene	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1
Benzo(a)pyrene TEQ	-	-	-	-		--	--	--	--	--
Total PAH	-	-	-	-		*nc*	< 1	*nc*	< 1	< 1

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 11 : Summary of Groundwater Analytical Data - Polyaromatic Hydrocarbons

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3	Criteria 4						
	HSLs - D	Drinking	ANZECC	ANZECC						
	Sand	Water	Freshwater	Marine Water	Sample ID	MW108	MW109	MW110	MW111	R1
	2 to <4 m	Guidelines	95%	95%	Date	5/06/2019	6/06/2019	5/06/2019	5/06/2019	5/06/2019
Acenaphthene	-	-	-	-		< 1	< 1	< 1	< 1	--
Acenaphthylene	-	-	-	-		< 1	< 1	< 1	< 1	--
Anthracene	-	-	0.4	0.1		< 1	< 1	< 1	< 1	--
Benz(a)anthracene	-	-	-	-		< 1	< 1	< 1	< 1	--
Benzo(a)pyrene	-	0.01	-	-		< 1	< 1	< 1	< 1	--
Benzo(b&j)fluoranthene	-	-	-	-		< 1	< 1	< 1	< 1	--
Benzo(g.h.i)perylene	-	-	-	-		< 1	< 1	< 1	< 1	--
Benzo(k)fluoranthene	-	-	-	-		< 1	< 1	< 1	< 1	--
Chrysene	-	-	-	-		< 1	< 1	< 1	< 1	--
Dibenz(a.h)anthracene	-	-	-	-		< 1	< 1	< 1	< 1	--
Fluoranthene	-	-	-	-		< 1	< 1	< 1	< 1	--
Fluorene	-	-	-	-		< 1	< 1	< 1	< 1	--
Indeno(1.2.3-cd)pyrene	-	-	-	-		< 1	< 1	< 1	< 1	--
Naphthalene (PAH method)	NL	-	16	70		< 1	< 1	< 1	< 1	--
Phenanthrene	-	-	-	-		< 1	< 1	< 1	< 1	--
Pyrene	-	-	-	-		< 1	< 1	< 1	< 1	--
Benzo(a)pyrene TEQ	-	-	-	-		--	--	--	--	--
Total PAH	-	-	-	-		< 1	< 1	< 1	< 1	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Groundwater Health Screening Levels for vapour intrusion, sand 2 to <4m.
Criteria 2 = Australian Drinking Water Guidelines, 2011.
Criteria 3 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 4 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
NL = not limiting
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 12 : Summary of Groundwater Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	GW1	GW2	GW4	MW101	MW102
	Guidelines	95%	95%	Date	6/06/2019	6/06/2019	5/06/2019	5/06/2019	5/06/2019
Arsenic	10	13[1]	-		< 1	2	1	1	6
Cadmium	2	0.2	5.5		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium	50[2]	1[2]	4.4[2]		< 1	< 1	1	< 1	< 1
Copper	2,000	1.4	1.3		**5**	**4**	**3**	**2**	1
Lead	10	3.4	4.4		< 1	< 1	< 1	< 1	< 1
Mercury	1	0.6	0.4		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	20	11	70		1	< 1	2	2	**16**
Zinc	-	8	15		**10**	**31**	< 5	**9**	**11**

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
[1]Guideline for arsenic (V) used conservatively.
[2]Guideline for chromium (VI) used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 12 : Summary of Groundwater Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	MW102	MW103	MW103	MW104	DW1
	Guidelines	95%	95%	Date	18/06/2019	5/06/2019	18/06/2019	5/06/2019	5/06/2019
Arsenic	10	13[1]	-		--	4	--	< 1	< 1
Cadmium	2	0.2	5.5		--	< 0.2	--	< 0.2	< 0.2
Chromium	50[2]	1[2]	4.4[2]		--	**2**	--	< 1	< 1
Copper	2,000	1.4	1.3		--	< 1	--	< 1	1
Lead	10	3.4	4.4		--	< 1	--	< 1	< 1
Mercury	1	0.6	0.4		--	< 0.1	--	< 0.1	< 0.1
Nickel	20	11	70		--	1	--	**15**	**15**
Zinc	-	8	15		--	6	--	**47**	**46**

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
[1]Guideline for arsenic (V) used conservatively.
[2]Guideline for chromium (VI) used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 12 : Summary of Groundwater Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	RPD_DW1	TW1	RPD_TW1	MW106	MW107
	Guidelines	95%	95%	Date	-	5/06/2019	-	5/06/2019	5/06/2019
Arsenic	10	13[1]	-		*nc*	< 1	*nc*	6	2
Cadmium	2	0.2	5.5		*nc*	< 0.2	*nc*	< 0.2	< 0.2
Chromium	50[2]	1[2]	4.4[2]		*nc*	< 1	*nc*	1	**4**
Copper	2,000	1.4	1.3		*nc*	< 1	*nc*	< 1	**4**
Lead	10	3.4	4.4		*nc*	< 1	*nc*	< 1	< 1
Mercury	1	0.6	0.4		*nc*	< 0.1	*nc*	< 0.1	< 0.1
Nickel	20	11	70		*0%*	**13**	*14%*	7	1
Zinc	-	8	15		*2%*	**40**	*16%*	**9**	< 5

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
[1]Guideline for arsenic (V) used conservatively.
[2]Guideline for chromium (VI) used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 12 : Summary of Groundwater Analytical Data - Heavy Metals

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2	Criteria 3						
	Drinking	ANZECC	ANZECC						
	Water	Freshwater	Marine Water	Sample ID	MW108	MW109	MW110	MW111	R1
	Guidelines	95%	95%	Date	5/06/2019	6/06/2019	5/06/2019	5/06/2019	5/06/2019
Arsenic	10	13[1]	-		7	4	< 1	2	--
Cadmium	2	0.2	5.5		< 0.2	< 0.2	< 0.2	< 0.2	--
Chromium	50[2]	1[2]	4.4[2]		< 1	**4**	< 1	< 1	--
Copper	2,000	1.4	1.3		**4**	**11**	**2**	1	--
Lead	10	3.4	4.4		< 1	**5**	< 1	< 1	--
Mercury	1	0.6	0.4		< 0.1	< 0.1	< 0.1	< 0.1	--
Nickel	20	11	70		10	5	**13**	3	--
Zinc	-	8	15		**9**	**20**	**34**	7	--

Notes:

Criteria 1 = Australian Drinking Water Guidelines, 2011.
Criteria 2 = ANZECC 2000 Guidelines for Freshwater - 95% Species Protection Trigger Values
Criteria 3 = ANZECC 2000 Guidelines for Marine Water - 95% Species Protection Trigger Values
Total concentrations in µg/L
- = assessment criteria not available
[1]Guideline for arsenic (V) used conservatively.
[2]Guideline for chromium (VI) used conservatively.
DW1 = duplicate of MW104
TW1 = triplicate of MW104
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit

< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 13 : Summary of Groundwater Analytical Data - Per- and Polyfluorinated Alkyl Substances

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	Drinking Water	Recreational Water	Sample ID	MW115	MW116	GW1	MW106	MW110
			Date	27/08/2019	26/08/2019	12/11/2019	12/11/2019	12/11/2019
Perfluoropropanesulfonic acid-PFPrS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorobutanesulfonic acid-PFBS	-	-		< 0.01	< 0.01	0.01	< 0.01	< 0.01
Perfluoropentanesulfonic acid-PFPeS	-	-		< 0.01	< 0.01	0.01	< 0.01	< 0.01
Perfluorohexanesulfonic acid-PFHxS	-	-		< 0.01	< 0.01	0.09	< 0.01	< 0.01
Perfluoroheptanesulfonic acid-PFHpS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonic acid-PFOS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanesulfonic acid-PFNS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorodecanesulfonic acid-PFDS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorobutanoic acid-PFBA	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Perfluoropentanoic acid-PFPeA	-	-		< 0.01	< 0.01	< 0.01	0.02	< 0.01
Perfluorohexanoic acid-PFHxA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroheptanoic acid-PFHpA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanoic acid-PFOA	0.56	5.6		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorononanoic acid-PFNA	-	-		< 0.01	< 0.01	< 0.01	0.01	< 0.01
Perfluorodecanoic acid-PFDA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluoroundecanoic acid-PFUnDA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorododecanoic acid-PFDoDA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorotridecanoic acid-PFTrDA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Notes:

Criteria 1 = PFAS NEMP (HEPA 2018) Drinking Water Guidelines, Australian Government Department of Health 2017.
Criteria 2 = PFAS NEMP (HEPA 2018) Recreational Water Guidelines, Australian Government Department of Health 2017.
Total concentrations in µg/L
- = assessment criteria not available
DW1 = duplicate of MW114
TW1 = triplicate of MW114
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

MeFOSA = N-methyl-perfluorooctanesulfonamide
EtFOSA = N-ethyl-perfluorooctanesulfonamide
MeFOSE = N-Methyl perfluorooctane sulfonamidoethanol
EtFOSE = N-Ethyl perfluorooctane sulfonamidoethanol
MeFOSAA = N-methyl-perfluorooctanesulfonamidoacetic acid
EtFOSAA = N-ethyl-perfluorooctanesulfonamidoacetic acid
4:2 FTS = 1H.1H.2H.2H-perfluorohexanesulfonic acid
6:2 FTS = 1H.1H.2H.2H-perfluorooctanesulfonic acid
8:2 FTS = 1H.1H.2H.2H-perfluorodecanesulfonic acid
10:2 FTS = 10:2 Fluorotelomer sulfonic acid

Table 13 : Summary of Groundwater Analytical Data - Per- and Polyfluorinated Alkyl Substances

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	Drinking Water	Recreational Water	Sample ID	MW115	MW116	GW1	MW106	MW110
			Date	27/08/2019	26/08/2019	12/11/2019	12/11/2019	12/11/2019
Perfluorotetradecanoic acid-PFTeDA	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Perfluorooctanesulfonamide-FOSA	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MeFOSA	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
EtFOSA	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MeFOSE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
EtFOSE	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
MeFOSAA	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
EtFOSAA	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4:2 FTS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
6:2 FTS	-	-		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
8:2 FTS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
10:2 FTS	-	-		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
PFOA + PFOS	-	-		ND	ND	ND	ND	ND
PFHxS + PFOS	0.07	0.7		< 0.01	< 0.01	**0.09**	< 0.01	< 0.01
Total PFAS	-	-		< 0.1	< 0.1	0.11	< 0.1	< 0.1

Notes:

Criteria 1 = PFAS NEMP (HEPA 2018) Drinking Water Guidelines, Australian Government Department of Health 2017.
Criteria 2 = PFAS NEMP (HEPA 2018) Recreational Water Guidelines, Australian Government Department of Health 2017.
Total concentrations in µg/L
- = assessment criteria not available
DW1 = duplicate of MW114
TW1 = triplicate of MW114
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

MeFOSA = N-methyl-perfluorooctanesulfonamide
EtFOSA = N-ethyl-perfluorooctanesulfonamide
MeFOSE = N-Methyl perfluorooctane sulfonamidoethanol
EtFOSE = N-Ethyl perfluorooctane sulfonamidoethanol
MeFOSAA = N-methyl-perfluorooctanesulfonamidoacetic acid
EtFOSAA = N-ethyl-perfluorooctanesulfonamidoacetic acid
4:2 FTS = 1H.1H.2H.2H-perfluorohexanesulfonic acid
6:2 FTS = 1H.1H.2H.2H-perfluorooctanesulfonic acid
8:2 FTS = 1H.1H.2H.2H-perfluorodecanesulfonic acid
10:2 FTS = 10:2 Fluorotelomer sulfonic acid

Table 13 : Summary of Groundwater Analytical Data - Per- and Polyfluorinated Alkyl Substances

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	Drinking Water	Recreational Water	Sample ID	MW114	DW1	RPD_DW1	TW1	RPD_TW1
			Date	12/11/2019	12/11/2019	-	12/11/2019	-
Perfluoropropanesulfonic acid-PFPrS	-	-		< 0.01	< 0.01	*nc*	--	--
Perfluorobutanesulfonic acid-PFBS	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluoropentanesulfonic acid-PFPeS	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorohexanesulfonic acid-PFHxS	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluoroheptanesulfonic acid-PFHpS	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorooctanesulfonic acid-PFOS	-	-		< 0.01	< 0.01	*nc*	< 0.01	*nc*
Perfluorononanesulfonic acid-PFNS	-	-		< 0.01	< 0.01	*nc*	--	--
Perfluorodecanesulfonic acid-PFDS	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorobutanoic acid-PFBA	-	-		< 0.05	< 0.05	*nc*	< 0.1	*nc*
Perfluoropentanoic acid-PFPeA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorohexanoic acid-PFHxA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluoroheptanoic acid-PFHpA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorooctanoic acid-PFOA	0.56	5.6		< 0.01	< 0.01	*nc*	< 0.01	*nc*
Perfluorononanoic acid-PFNA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorodecanoic acid-PFDA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluoroundecanoic acid-PFUnDA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorododecanoic acid-PFDoDA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*
Perfluorotridecanoic acid-PFTrDA	-	-		< 0.01	< 0.01	*nc*	< 0.02	*nc*

Notes:

Criteria 1 = PFAS NEMP (HEPA 2018) Drinking Water Guidelines, Australian Government Department of Health 2017.
Criteria 2 = PFAS NEMP (HEPA 2018) Recreational Water Guidelines, Australian Government Department of Health 2017.
Total concentrations in µg/L
- = assessment criteria not available
DW1 = duplicate of MW114
TW1 = triplicate of MW114
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

MeFOSA = N-methyl-perfluorooctanesulfonamide
EtFOSA = N-ethyl-perfluorooctanesulfonamide
MeFOSE = N-Methyl perfluorooctane sulfonamidoethanol
EtFOSE = N-Ethyl perfluorooctane sulfonamidoethanol
MeFOSAA = N-methyl-perfluorooctanesulfonamidoacetic acid
EtFOSAA = N-ethyl-perfluorooctanesulfonamidoacetic acid
4:2 FTS = 1H.1H.2H.2H-perfluorohexanesulfonic acid
6:2 FTS = 1H.1H.2H.2H-perfluorooctanesulfonic acid
8:2 FTS = 1H.1H.2H.2H-perfluorodecanesulfonic acid
10:2 FTS = 10:2 Fluorotelomer sulfonic acid

Table 13 : Summary of Groundwater Analytical Data - Per- and Polyfluorinated Alkyl Substances

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2						
	Drinking Water	Recreational Water	Sample ID	MW114	DW1	RPD_DW1	TW1	RPD_TW1
			Date	12/11/2019	12/11/2019	-	12/11/2019	-
Perfluorotetradecanoic acid-PFTeDA	-	-		< 0.01	< 0.01	*nc*	< 0.05	*nc*
Perfluorooctanesulfonamide-FOSA	-	-		< 0.05	< 0.05	*nc*	< 0.02	*nc*
MeFOSA	-	-		< 0.05	< 0.05	*nc*	< 0.05	*nc*
EtFOSA	-	-		< 0.05	< 0.05	*nc*	< 0.05	*nc*
MeFOSE	-	-		< 0.05	< 0.05	*nc*	< 0.05	*nc*
EtFOSE	-	-		< 0.05	< 0.05	*nc*	< 0.05	*nc*
MeFOSAA	-	-		< 0.05	< 0.05	*nc*	< 0.02	*nc*
EtFOSAA	-	-		< 0.05	< 0.05	*nc*	< 0.02	*nc*
4:2 FTS	-	-		< 0.01	< 0.01	*nc*	< 0.05	*nc*
6:2 FTS	-	-		< 0.05	< 0.05	*nc*	< 0.05	*nc*
8:2 FTS	-	-		< 0.01	< 0.01	*nc*	< 0.05	*nc*
10:2 FTS	-	-		< 0.01	< 0.01	*nc*	< 0.05	*nc*
PFOA + PFOS	-	-		ND	ND	*nc*	ND	*nc*
PFHxS + PFOS	0.07	0.7		< 0.01	< 0.01	*nc*	ND	*nc*
Total PFAS	-	-		< 0.1	< 0.1	*nc*	< 0.01	*nc*

Notes:

Criteria 1 = PFAS NEMP (HEPA 2018) Drinking Water Guidelines, Australian Government Department of Health 2017.
Criteria 2 = PFAS NEMP (HEPA 2018) Recreational Water Guidelines, Australian Government Department of Health 2017.
Total concentrations in µg/L
- = assessment criteria not available
DW1 = duplicate of MW114
TW1 = triplicate of MW114
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

MeFOSA = N-methyl-perfluorooctanesulfonamide
EtFOSA = N-ethyl-perfluorooctanesulfonamide
MeFOSE = N-Methyl perfluorooctane sulfonamidoethanol
EtFOSE = N-Ethyl perfluorooctane sulfonamidoethanol
MeFOSAA = N-methyl-perfluorooctanesulfonamidoacetic acid
EtFOSAA = N-ethyl-perfluorooctanesulfonamidoacetic acid
4:2 FTS = 1H.1H.2H.2H-perfluorohexanesulfonic acid
6:2 FTS = 1H.1H.2H.2H-perfluorooctanesulfonic acid
8:2 FTS = 1H.1H.2H.2H-perfluorodecanesulfonic acid
10:2 FTS = 10:2 Fluorotelomer sulfonic acid

Table 13 : Summary of Groundwater Analytical Data - Per- and Polyfluorinated Alkyl Substances

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2		
	Drinking Water	Recreational Water	Sample ID	R1
			Date	12/11/2019
Perfluoropropanesulfonic acid-PFPrS	-	-		< 0.01
Perfluorobutanesulfonic acid-PFBS	-	-		< 0.01
Perfluoropentanesulfonic acid-PFPeS	-	-		< 0.01
Perfluorohexanesulfonic acid-PFHxS	-	-		< 0.01
Perfluoroheptanesulfonic acid-PFHpS	-	-		< 0.01
Perfluorooctanesulfonic acid-PFOS	-	-		< 0.01
Perfluorononanesulfonic acid-PFNS	-	-		< 0.01
Perfluorodecanesulfonic acid-PFDS	-	-		< 0.01
Perfluorobutanoic acid-PFBA	-	-		< 0.05
Perfluoropentanoic acid-PFPeA	-	-		< 0.01
Perfluorohexanoic acid-PFHxA	-	-		< 0.01
Perfluoroheptanoic acid-PFHpA	-	-		< 0.01
Perfluorooctanoic acid-PFOA	0.56	5.6		< 0.01
Perfluorononanoic acid-PFNA	-	-		< 0.01
Perfluorodecanoic acid-PFDA	-	-		< 0.01
Perfluoroundecanoic acid-PFUnDA	-	-		< 0.01
Perfluorododecanoic acid-PFDoDA	-	-		< 0.01
Perfluorotridecanoic acid-PFTrDA	-	-		< 0.01

Notes:

Criteria 1 = PFAS NEMP (HEPA 2018) Drinking Water Guidelines, Australian Government Department of Health 2017.
Criteria 2 = PFAS NEMP (HEPA 2018) Recreational Water Guidelines, Australian Government Department of Health 2017.
Total concentrations in µg/L
- = assessment criteria not available
DW1 = duplicate of MW114
TW1 = triplicate of MW114
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

MeFOSA = N-methyl-perfluorooctanesulfonamide
EtFOSA = N-ethyl-perfluorooctanesulfonamide
MeFOSE = N-Methyl perfluorooctane sulfonamidoethanol
EtFOSE = N-Ethyl perfluorooctane sulfonamidoethanol
MeFOSAA = N-methyl-perfluorooctanesulfonamidoacetic acid
EtFOSAA = N-ethyl-perfluorooctanesulfonamidoacetic acid
4:2 FTS = 1H.1H.2H.2H-perfluorohexanesulfonic acid
6:2 FTS = 1H.1H.2H.2H-perfluorooctanesulfonic acid
8:2 FTS = 1H.1H.2H.2H-perfluorodecanesulfonic acid
10:2 FTS = 10:2 Fluorotelomer sulfonic acid

Table 13 : Summary of Groundwater Analytical Data - Per- and Polyfluorinated Alkyl Substances

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	Criteria 2		
	Drinking Water	Recreational Water	Sample ID	R1
			Date	12/11/2019
Perfluorotetradecanoic acid-PFTeDA	-	-		< 0.01
Perfluorooctanesulfonamide-FOSA	-	-		< 0.05
MeFOSA	-	-		< 0.05
EtFOSA	-	-		< 0.05
MeFOSE	-	-		< 0.05
EtFOSE	-	-		< 0.05
MeFOSAA	-	-		< 0.05
EtFOSAA	-	-		< 0.05
4:2 FTS	-	-		< 0.01
6:2 FTS	-	-		< 0.05
8:2 FTS	-	-		< 0.01
10:2 FTS	-	-		< 0.01
PFOA + PFOS	-	-		ND
PFHxS + PFOS	0.07	0.7		< 0.01
Total PFAS	-	-		< 0.1

Notes:

Criteria 1 = PFAS NEMP (HEPA 2018) Drinking Water Guidelines, Australian Government Department of Health 2017.
Criteria 2 = PFAS NEMP (HEPA 2018) Recreational Water Guidelines, Australian Government Department of Health 2017.
Total concentrations in µg/L
- = assessment criteria not available
DW1 = duplicate of MW114
TW1 = triplicate of MW114
R1 = rinsate sample
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

MeFOSA = N-methyl-perfluorooctanesulfonamide
EtFOSA = N-ethyl-perfluorooctanesulfonamide
MeFOSE = N-Methyl perfluorooctane sulfonamidoethanol
EtFOSE = N-Ethyl perfluorooctane sulfonamidoethanol
MeFOSAA = N-methyl-perfluorooctanesulfonamidoacetic acid
EtFOSAA = N-ethyl-perfluorooctanesulfonamidoacetic acid
4:2 FTS = 1H.1H.2H.2H-perfluorohexanesulfonic acid
6:2 FTS = 1H.1H.2H.2H-perfluorooctanesulfonic acid
8:2 FTS = 1H.1H.2H.2H-perfluorodecanesulfonic acid
10:2 FTS = 10:2 Fluorotelomer sulfonic acid

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1						
		Sample ID	R1	R1-	R3	R4	R6
		Date	5/06/2019	20/08/2019	22/08/2019	26/08/2019	28/08/2019
1.1-Dichloroethane	-		< 1	< 1	< 1	< 1	< 1
1.1-Dichloroethene	-		< 1	< 1	< 1	< 1	< 1
1.1.1-Trichloroethane	-		< 1	< 1	< 1	< 1	< 1
1.1.1.2-Tetrachloroethane	-		< 1	< 1	< 1	< 1	< 1
1.1.2-Trichloroethane	-		< 1	< 1	< 1	< 1	< 1
1.1.2.2-Tetrachloroethane	-		< 1	< 1	< 1	< 1	< 1
1.2-Dibromoethane	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichlorobenzene	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloroethane	-		< 1	< 1	< 1	< 1	< 1
1.2-Dichloropropane	-		< 1	< 1	< 1	< 1	< 1
1.2.3-Trichloropropane	-		< 1	< 1	< 1	< 1	< 1
1.2.4-Trimethylbenzene	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichlorobenzene	-		< 1	< 1	< 1	< 1	< 1
1.3-Dichloropropane	-		< 1	< 1	< 1	< 1	< 1
1.3.5-Trimethylbenzene	-		< 1	< 1	< 1	< 1	< 1
1.4-Dichlorobenzene	-		< 1	< 1	< 1	< 1	< 1
2-Butanone (MEK)	-		< 1	< 1	< 1	< 1	< 1
2-Propanone (Acetone)	-		< 1	< 3	2.7	< 1	< 1
4-Chlorotoluene	-		< 1	< 1	< 1	< 1	< 1

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1					
		Sample ID	R1	R1-	R3	R4	R6
		Date	5/06/2019	20/08/2019	22/08/2019	26/08/2019	28/08/2019
4-Methyl-2-pentanone (MIBK)	-		< 1	< 1	< 1	< 1	< 1
Allyl chloride	-		< 1	< 1	< 1	< 1	< 1
Benzene	-		< 1	< 1	< 1	< 1	< 1
Bromobenzene	-		< 1	< 1	< 1	< 1	< 1
Bromochloromethane	-		< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	-		< 1	< 1	< 1	< 1	11
Bromoform	-		< 1	< 1	< 1	< 1	< 1
Bromomethane	-		< 1	< 1	< 1	< 1	< 1
Carbon disulfide	-		< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	-		< 1	< 1	< 1	< 1	< 1
Chlorobenzene	-		< 1	< 1	< 1	< 1	< 1
Chloroethane	-		< 1	< 1	< 1	< 1	< 1
Chloroform	-		< 5	< 5	< 5	< 5	19
Chloromethane	-		< 1	< 1	< 1	< 1	< 1
cis-1.2-Dichloroethene	-		< 1	< 1	< 1	< 1	< 1
cis-1.3-Dichloropropene	-		< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	-		< 1	< 1	< 1	< 1	< 1
Dibromomethane	-		< 1	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	-		< 1	< 1	< 1	< 1	< 1

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1					
		Sample ID	R1	R1-	R3	R4	R6
		Date	5/06/2019	20/08/2019	22/08/2019	26/08/2019	28/08/2019
Ethylbenzene	-		< 1	< 1	< 1	< 1	< 1
Iodomethane	-		< 1	< 1	< 1	< 1	< 1
Isopropyl benzene (Cumene)	-		< 1	< 1	< 1	< 1	< 1
m&p-Xylenes	-		< 2	< 2	< 2	< 2	< 2
Methylene Chloride	-		< 1	< 1	< 1	< 1	< 1
o-Xylene	-		< 1	< 1	< 1	< 1	< 1
Styrene	-		< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	-		< 1	< 1	< 1	< 1	< 1
Toluene	-		< 1	< 1	< 1	< 1	< 1
trans-1.2-Dichloroethene	-		< 1	< 1	< 1	< 1	< 1
trans-1.3-Dichloropropene	-		< 1	< 1	< 1	< 1	< 1
Trichloroethene	-		< 1	< 1	< 1	< 1	< 1
Trichlorofluoromethane	-		< 1	< 1	< 1	< 1	< 1
Vinyl chloride	-		< 1	< 1	< 1	< 1	< 1
Xylenes - Total	-		< 3	< 3	< 3	< 3	< 3

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1					
		Sample ID	R7	R8	TRIP BLANK	TRIP BLANK	TRIP SPIKE
		Date	27/09/2019	8/10/2019	20/08/2019	26/08/2019	20/08/2019
1.1-Dichloroethane	-		< 1	< 1	--	--	--
1.1-Dichloroethene	-		< 1	< 1	--	--	--
1.1.1-Trichloroethane	-		< 1	< 1	--	--	--
1.1.1.2-Tetrachloroethane	-		< 1	< 1	--	--	--
1.1.2-Trichloroethane	-		< 1	< 1	--	--	--
1.1.2.2-Tetrachloroethane	-		< 1	< 1	--	--	--
1.2-Dibromoethane	-		< 1	< 1	--	--	--
1.2-Dichlorobenzene	-		< 1	< 1	--	--	--
1.2-Dichloroethane	-		< 1	< 1	--	--	--
1.2-Dichloropropane	-		< 1	< 1	--	--	--
1.2.3-Trichloropropane	-		< 1	< 1	--	--	--
1.2.4-Trimethylbenzene	-		< 1	< 1	--	--	--
1.3-Dichlorobenzene	-		< 1	< 1	--	--	--
1.3-Dichloropropane	-		< 1	< 1	--	--	--
1.3.5-Trimethylbenzene	-		< 1	< 1	--	--	--
1.4-Dichlorobenzene	-		< 1	< 1	--	--	--
2-Butanone (MEK)	-		< 1	< 1	--	--	--
2-Propanone (Acetone)	-		< 1	< 1	--	--	--
4-Chlorotoluene	-		< 1	< 1	--	--	--

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1					
		Sample ID	R7	R8	TRIP BLANK	TRIP BLANK	TRIP SPIKE
		Date	27/09/2019	8/10/2019	20/08/2019	26/08/2019	20/08/2019
4-Methyl-2-pentanone (MIBK)	-		< 1	< 1	--	--	--
Allyl chloride	-		< 1	< 1	--	--	--
Benzene	-		< 1	< 1	< 1	< 1	100
Bromobenzene	-		< 1	< 1	--	--	--
Bromochloromethane	-		< 1	< 1	--	--	--
Bromodichloromethane	-		< 1	< 1	--	--	--
Bromoform	-		< 1	< 1	--	--	--
Bromomethane	-		< 1	< 1	--	--	--
Carbon disulfide	-		< 1	< 1	--	--	--
Carbon Tetrachloride	-		< 1	< 1	--	--	--
Chlorobenzene	-		< 1	< 1	--	--	--
Chloroethane	-		< 1	< 1	--	--	--
Chloroform	-		9	< 5	--	--	--
Chloromethane	-		< 1	< 1	--	--	--
cis-1.2-Dichloroethene	-		< 1	< 1	--	--	--
cis-1.3-Dichloropropene	-		< 1	< 1	--	--	--
Dibromochloromethane	-		< 1	< 1	--	--	--
Dibromomethane	-		< 1	< 1	--	--	--
Dichlorodifluoromethane	-		< 1	< 1	--	--	--

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1					
		Sample ID	R7	R8	TRIP BLANK	TRIP BLANK	TRIP SPIKE
		Date	27/09/2019	8/10/2019	20/08/2019	26/08/2019	20/08/2019
Ethylbenzene	-		< 1	< 1	< 1	< 1	100
Iodomethane	-		< 1	< 1	--	--	--
Isopropyl benzene (Cumene)	-		< 1	< 1	--	--	--
m&p-Xylenes	-		< 2	< 2	< 2	< 2	95
Methylene Chloride	-		< 1	< 1	--	--	--
o-Xylene	-		< 1	< 1	< 1	< 1	100
Styrene	-		< 1	< 1	--	--	--
Tetrachloroethene	-		< 1	< 1	--	--	--
Toluene	-		< 1	< 1	< 1	< 1	100
trans-1.2-Dichloroethene	-		< 1	< 1	--	--	--
trans-1.3-Dichloropropene	-		< 1	< 1	--	--	--
Trichloroethene	-		< 1	< 1	--	--	--
Trichlorofluoromethane	-		< 1	< 1	--	--	--
Vinyl chloride	-		< 1	< 1	--	--	--
Xylenes - Total	-		< 3	< 3	< 3	< 3	97

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1		
		Sample ID	TRIP SPIKE
		Date	26/08/2019
1.1-Dichloroethane	-		--
1.1-Dichloroethene	-		--
1.1.1-Trichloroethane	-		--
1.1.1.2-Tetrachloroethane	-		--
1.1.2-Trichloroethane	-		--
1.1.2.2-Tetrachloroethane	-		--
1.2-Dibromoethane	-		--
1.2-Dichlorobenzene	-		--
1.2-Dichloroethane	-		--
1.2-Dichloropropane	-		--
1.2.3-Trichloropropane	-		--
1.2.4-Trimethylbenzene	-		--
1.3-Dichlorobenzene	-		--
1.3-Dichloropropane	-		--
1.3.5-Trimethylbenzene	-		--
1.4-Dichlorobenzene	-		--
2-Butanone (MEK)	-		--
2-Propanone (Acetone)	-		--
4-Chlorotoluene	-		--

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1		
		Sample ID	TRIP SPIKE
		Date	26/08/2019
4-Methyl-2-pentanone (MIBK)	-		--
Allyl chloride	-		--
Benzene	-		86
Bromobenzene	-		--
Bromochloromethane	-		--
Bromodichloromethane	-		--
Bromoform	-		--
Bromomethane	-		--
Carbon disulfide	-		--
Carbon Tetrachloride	-		--
Chlorobenzene	-		--
Chloroethane	-		--
Chloroform	-		--
Chloromethane	-		--
cis-1.2-Dichloroethene	-		--
cis-1.3-Dichloropropene	-		--
Dibromochloromethane	-		--
Dibromomethane	-		--
Dichlorodifluoromethane	-		--

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 14 : Summary of Groundwater Analytical Data - Volatile Organic Compounds (QAQC)

Detailed Site Investigation

Project No.: 1901048

11-13 Percy Street
Auburn NSW

	Criteria 1	
		Sample ID TRIP SPIKE
		Date 26/08/2019
Ethylbenzene	-	91
Iodomethane	-	--
Isopropyl benzene (Cumene)	-	--
m&p-Xylenes	-	89
Methylene Chloride	-	--
o-Xylene	-	100
Styrene	-	--
Tetrachloroethene	-	--
Toluene	-	91
trans-1.2-Dichloroethene	-	--
trans-1.3-Dichloropropene	-	--
Trichloroethene	-	--
Trichlorofluoromethane	-	--
Vinyl chloride	-	--
Xylenes - Total	-	93

Notes:

Total concentrations in µg/L
- = assessment criteria not available
R1 = rinsate sample
R1- = rinsate sample
R3 = rinsate sample
R4 = rinsate sample
R6 = rinsate sample
R7 = rinsate sample
R8 = rinsate sample
TRIP BLANK = blank sample
TRIP SPIKE = spike sample
< # or ND = analyte(s) not detected in excess of laboratory reporting limit

-- = sample not analysed
Bold/red indicates exceedance of assessment criteria
Spike recovery in %

Table 1: Summary of Soil Vapour Analytical Data - BTEX

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1						
	HSLs - D						
	Sand	Sample ID	VP1	VP2	VP4	VP4DUP	RPD_VP4DUP
	0 to <1 m	Date	28/05/2020	28/05/2020	28/05/2020	28/05/2020	-
Benzene	4,000		< 60	< 60	< 60	< 60	*nc*
Toluene	4,800,000		< 100	< 100	< 100	< 100	*nc*
Ethylbenzene	1,300,000		< 200	< 200	430	340	*23%*
m&p-Xylenes	-		1,200	950	2,000	1,900	*5%*
o-Xylene	-		750	< 120	1,500	1,500	*0%*
Xylenes - Total	840,000		1,950	950	3,500	3,400	*3%*

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 1: Summary of Soil Vapour Analytical Data - BTEX

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1						
	HSLs - D						
	Sand	Sample ID	VP4-TD	RPD_VP4-TD	VP6	VP7	VP9
	0 to <1 m	Date	28/05/2020	-	28/05/2020	28/05/2020	28/05/2020
Benzene	4,000		< 4	*nc*	< 60	< 60	< 60
Toluene	4,800,000		< 4	*nc*	< 100	< 100	< 100
Ethylbenzene	1,300,000		640	*39%*	< 200	350	< 200
m&p-Xylenes	-		2,920	*37%*	< 300	1,500	2,800
o-Xylene	-		1,200	*22%*	< 120	< 120	2,900
Xylenes - Total	840,000		4,120	*16%*	ND	1,500	5,700

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 1: Summary of Soil Vapour Analytical Data - BTEX

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1					
	HSLs - D					
	Sand	Sample ID	VP9DUP	RPD_VP9DUP	VP10	VP11	VP12
	0 to <1 m	Date	28/05/2020	-	28/05/2020	28/05/2020	28/05/2020
Benzene	4,000		< 60	*nc*	< 60	< 60	< 60
Toluene	4,800,000		< 100	*nc*	< 100	< 100	< 100
Ethylbenzene	1,300,000		< 200	*nc*	< 200	< 200	< 200
m&p-Xylenes	-		2,500	*11%*	< 300	< 300	< 300
o-Xylene	-		2,000	*37%*	< 120	< 120	< 120
Xylenes - Total	840,000		4,500	*24%*	ND	ND	ND

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 1: Summary of Soil Vapour Analytical Data - BTEX

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1						
	HSLs - D						
	Sand	Sample ID	VP16	VP17	VP18	VP19	VP20
	0 to <1 m	Date	28/05/2020	28/05/2020	28/05/2020	28/05/2020	19/06/2020
Benzene	4,000		< 60	80	90	< 60	< 16
Toluene	4,800,000		< 100	< 100	< 100	< 100	750
Ethylbenzene	1,300,000		200	< 200	< 200	< 200	60
m&p-Xylenes	-		530	< 300	< 300	< 300	260
o-Xylene	-		130	< 120	< 120	< 120	52
Xylenes - Total	840,000		660	ND	ND	ND	310

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Comm./ind. Soil vapour Health Screening Levels for vapour intrusion, sand 0 to <1m.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1						
	HILs - D						
	Interim	Sample ID	VP1	VP2	VP4	VP4DUP	RPD_VP4DUP
	Soil Vapour	Date	28/05/2020	28/05/2020	28/05/2020	28/05/2020	-
cis-1.2-Dichloroethene	300		< 80	< 80	**1,100**	**1,000**	*10%*
trans-1.2-Dichloroethene	-		< 40	< 40	250	240	*4%*
1.2-Dichloroethene (Total)	-		ND	ND	1,350	1,240	*8%*
Trichloroethene	80		2	4	**12,000**	**10,500**	*13%*
Tetrachloroethene	8,000		< 1	< 1	21	15	*33%*
Isopropanol	-		< 50	< 50	< 50	< 50	*nc*
Vinyl chloride	100		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1					
	HILs - D					
	Interim	Sample ID	VP4-TD	RPD_VP4-TD	VP6	VP7	VP9
	Soil Vapour	Date	28/05/2020	-	28/05/2020	28/05/2020	28/05/2020
cis-1.2-Dichloroethene	300		168	*147%*	< 80	< 80	< 80
trans-1.2-Dichloroethene	-		< 4	*nc*	< 40	< 40	80
1.2-Dichloroethene (Total)	-		168	*156%*	ND	ND	80
Trichloroethene	80		**5,600**	*73%*	< 1	< 1	< 1
Tetrachloroethene	8,000		13.2	*46%*	< 8	< 1	< 1
Isopropanol	-		--	*nc*	< 50	< 50	< 50
Vinyl chloride	100		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1					
	HILs - D					
	Interim	Sample ID	VP9DUP	RPD_VP9DUP	VP10	VP11	VP12
	Soil Vapour	Date	28/05/2020	-	28/05/2020	28/05/2020	28/05/2020
cis-1.2-Dichloroethene	300		< 80	*nc*	< 80	< 80	< 80
trans-1.2-Dichloroethene	-		60	*29%*	< 40	41	< 40
1.2-Dichloroethene (Total)	-		60	*29%*	ND	41	ND
Trichloroethene	80		< 1	*nc*	< 1	1	12
Tetrachloroethene	8,000		< 1	*nc*	< 1	< 1	< 5
Isopropanol	-		< 50	*nc*	< 50	< 50	< 50
Vinyl chloride	100		--	--	--	--	--

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
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Bold/red indicates exceedance of assessment criteria

Table 2 : Summary of Soil Vapour Analytical Data - Volatile Organic Compounds

Soil Vapour Investigation

Project No.: 2001029

11-13 Percy Street,
Auburn NSW

	Criteria 1						
	HILs - D						
	Interim	Sample ID	VP16	VP17	VP18	VP19	VP20
	Soil Vapour	Date	28/05/2020	28/05/2020	28/05/2020	28/05/2020	19/06/2020
cis-1.2-Dichloroethene	300		< 80	< 80	< 80	< 80	**22,000**
trans-1.2-Dichloroethene	-		60	< 40	< 40	< 40	1,100
1.2-Dichloroethene (Total)	-		60	ND	ND	ND	23,100
Trichloroethene	80		< 1	< 1	< 1	< 1	**77,000**
Tetrachloroethene	8,000		< 4	< 1	< 1	< 1	< 33
Isopropanol	-		< 50	< 50	< 50	< 50	< 482
Vinyl chloride	100		--	--	--	--	**650**

Notes:

Criteria 1 = NEPC (1999) Amended, 'D' Commercial/industrial Interim soil vapour Health Investigation Levels for VOCCs.
Total concentrations in µg/m³
- = assessment criteria not available
VP4DUP = duplicate of VP4
VP4-TD = triplicate of VP4
VP9DUP = duplicate of VP9
RPD = relative percent difference of duplicate/triplicate
nc = RPD not calculated, one or both samples below laboratory reporting limit
< # or ND = analyte(s) not detected in excess of laboratory reporting limit
-- = sample not analysed
Bold/red indicates exceedance of assessment criteria

ATTACHMENT C

SOIL SAMPLING PROCEDURE – GENERAL

1. Scope

The purpose of this Standard Operating Procedure is to provide a description of the procedures used for the collection and handling of soil samples. This procedure should be read in conjunction with the other specific sampling procedures.

2. Equipment

The following equipment may be required:

- Tape measure;
- Sample containers;
- Photoionisation detector (PID)
- Zip-lock plastic bags;
- Chain of Custody forms;
- Personal protective equipment;
- Coolers (eskies);
- Ice;
- Spade/shovel/trowel; and
- Hand auger.

3. Safety

A site specific Health and Safety Plan (HASP) must be developed before visiting site and signed off by a manager.

During the sampling of soils, the following personal protective equipment (PPE) should be worn as a minimum:

- Safety glasses;
- Nitrile gloves;
- Long-sleeved shirt; and
- Long-legged trousers.

Other PPE may be required depending on the nature of the soil contaminants. A hard had may be required if sampling in the proximity of a drill rig / excavator or other hazard.

4. Soil Sampling Procedures

The following general sampling procedures should be applied when collecting soil samples:

- Each sample should be given a unique sample ID code. Sample depth and date should be noted;
- A clean pair of nitrile gloves should be worn when collecting each sample prior to handling, so as to avoid cross contamination;
- Following the collection of the sample it should be placed in a sample container labelled with the unique sample ID code, the date of collection and the job number.
- The sample container should be sealed and placed immediately in an ice-cooled esky;
- A soil sub sample should be placed in a zip-lock bag for field screening for Volatile Organic Compounds (VOCs) using a PID. The zip-lock bag should be sealed and allowed to stand for approximately 5 minutes to allow for equilibration of volatile compounds to gas phase within the air space of the bag; and
- The tip of a PID should be used to puncture the zip-lock bag, and a PID reading taken once the reading has stabilised. The PID reading should be recorded in the sampler's field notes or on the relevant Geo-Logix Field Form.

Composite Samples

The following should be applied when composite sampling is required:

- Soils samples should not be composited in the field;
- Soil should be collected as discrete samples;
- Compositing for non-volatile analytes should be undertaken by the laboratory; and
- Laboratory analysis of composite samples for volatile and semi-volatile compounds should not be undertaken due to potential loss of volatiles through the composite process.

Sampling Soil for Volatile Analysis

The following should be applied when soil sampling for volatile analysis is required:

- Collect samples that are reasonably intact, taking care to remove surrounding soils that have been disturbed.

5. Sample Handling, Transport and Storage

To maintain sample integrity it is important to ensure that the samples remain cool and protected from light prior to and during transportation. If necessary, melted ice water in the eskies/coolers should be drained and the ice should be replaced.

Samples should be transported under Chain-of-Custody conditions to a National Association of Testing Authorities (NATA) licensed facility for analysis.

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