Central Station Main Works

Ongoing Groundwater Monitoring Report (October 2020 to March 2021)

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Document prepared by:

Aurecon Australasia Pty Ltd & GHD Pty Ltd
ABN 70 856 896 413

Level 11
54 Park Street
Sydney NSW 2000
Australia

T +612 9239 7100
E info@agjvcsm.com

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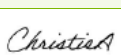
Author signature		Approver signature	
Name	Christie Allen	Name	Brian Griffiths
Title	Environmental Scientist	Title	Project Manager

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Glossary of Terms and Abbreviations

Abbreviation	Description
AGJV	Aurecon & GHD Design Joint Venture
ADWG	Australian Drinking Water Guidelines
AHD	Australian Height Datum
ANZECC & ARMCANZ	Australian and New Zealand Environment and Conservation Council (ANZECC) and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ)
BOD	Biological Oxygen Demand
BTEXN	Benzene, Toluene, Ethylbenzene, Xylene and Naphthalene
CBD	Central Business District
CGWMP	Construction Groundwater Monitoring Plan
CSM	Central Station Main Works
COPC	Contaminants of Potential Concern
DO	Dissolved Oxygen
EC	Electrical Conductivity
GILs	Groundwater Investigation Levels
HSL	Health Screening Level
LOR	Laing O'Rourke
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
NRAR	Natural Resources Access Regulator
OCP	Organochlorine Pesticides
OPP	Organophosphorus Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
QA/QC	Quality Assurance/Quality Control
RSA	Rail Services Australia
RPD	Relative percentage difference
SWL	Standing Water Level
TDS	Total Dissolved Solids
TRH	Total Recoverable Hydrocarbons
TSS	Total Suspended Solids

1 Introduction

AGJV Pty Ltd (AGJV) was commissioned by Laing O'Rourke (LOR) to undertake a groundwater monitoring program for selected groundwater wells at Central Station, as part of the Sydney Metro Central Station Main (CSM) works project.

LOR has identified three separate project work areas for the CSM project, these include:

- The Metro Station Box works
- The Central Walk and Eastern Entrance
- The Sydney Yard project access area

The approximate boundaries of the CSM project areas are presented in **Figure 1, Appendix A.**

A construction groundwater management plan (CGWMP) (LOR, August 2020) has been prepared for the CSM project and approved by the Natural Resources Access Regulator (NRAR). The CGWMP includes a groundwater monitoring program to establish the pre-construction, during construction and post construction groundwater conditions. The groundwater monitoring requirements are detailed in Section 7 of the CGWMP. Section 10 of the CGWMP also requires that the groundwater monitoring program be reviewed and amended on an annual basis to ensure it remains consistent with project priorities.

The groundwater monitoring program conducted to date includes:

- Baseline monitoring period:
  - Report one: September 2018 to February 2019
- Baseline / construction monitoring period:
  - Report two: March 2019 to September 2019 (includes baseline for the deeper monitoring wells and construction for the shallow monitoring wells)
- Construction monitoring period:
  - Report three: October 2019 to March 2020
  - Report four: April 2002 to September 2020

This report has been prepared to document the fifth groundwater monitoring period, undertaken between October 2020 and March 2021 as part of the ongoing groundwater monitoring program for the construction phase of the project. It is noted that this report will take into consideration the previous monitoring periods to compare the current monitoring period with both the previous monitoring periods and the baseline monitoring period.

1.1 Objectives

The objectives of this groundwater monitoring program are to:

- Characterise the post-baseline groundwater conditions including groundwater levels and groundwater quality within and surrounding the CSM project area during construction.
- Comply with the groundwater monitoring program outlined in the CGWMP, which has been approved by the Natural Resources Access Regulator (NRAR).
- Assess any impacts the construction phase of the project has had on groundwater quality and groundwater levels. Baseline data and relevant public health and environmental water quality criteria will be compared against the ongoing groundwater conditions within the project boundary to make this assessment.

1.2 Scope of work

The scope of work completed by AGJV is summarised below:

- Gauging of up to 16 monitoring wells on a monthly basis for six months. Constraints encountered, with regards to well access, during the monitoring program are discussed in **Section 2**.
- Collection and analysis of groundwater samples from the monitoring wells on a monthly basis for six months.
- Submission of groundwater samples to National Association of Testing Authorities (NATA) accredited laboratories for chemical analysis for a range of contaminants of potential concern (COPC) including: pH, total suspended solids (TSS), total dissolved solids (TDS), heavy metals; benzene, toluene, ethylbenzene and xylene (BTEX); total recoverable hydrocarbons (TRH); polycyclic aromatic hydrocarbons (PAH); phenols; cyanide; ammonia; ferrous iron, manganese and major anions and cations (chloride, sulfate, ammonia, nitrate, sodium, calcium, potassium and magnesium).
- Collection of groundwater depth data from data loggers located in five monitoring wells (CSM_BH02, CSM_BH04, CSM_BH06, SRT_BH047 and CSM_BH10S).
- Preparation of this report.

1.3 Limitations

AGJV's limitations to the assessment are provided in Section **9**.

The table presented in **Table B1, Appendix B,** indicates that although the number of functioning groundwater monitoring wells used throughout this monitoring period have remained relatively stable, three wells were destroyed between October 2020 to March 2021. This has the potential to limit characterisation of construction impacts against baseline conditions for these wells and has created data gaps to the east and south of the monitoring area.

Further to this, the number of wells sampled differs to that presented in Table-7.1 of the CGWMP (LOR, August 2020) and is outlined in **Section 2.4**.

2 Status of groundwater monitoring program

2.1 Groundwater monitoring between September 2018 and September 2020

The groundwater data collected between the September 2018 and September 2020 are presented in the following reports:

- AGJV. (June 2019). *Sydney Metro - Central Station Main Works - Groundwater Baseline Monitoring (September 2018 to February 2019) - SMCSWCSM-DJV-EW-00-COR-GE-000001.* Sydney: Aurecon GHD Joint Venture.
- AGJV. (January 2020). *Sydney Metro - Central Station Main Works - Groundwater Baseline Monitoring (April 2019 to September 2019) - SMCSWCSM-DJV-EW-00-PLN-GE-000003*. Sydney: Aurecon GHD Joint Venture.
- AGJV. (June 2020). *Sydney Metro - Central Station Main Works – Ongoing Groundwater Monitoring (October 2019 to March 2020) - SMCSWCSM-DJV-EW-00-PLN-GE-000233*. Sydney: Aurecon GHD Joint Venture.
- AGJV. (December 2020). *Sydney Metro - Central Station Main Works – Ongoing Groundwater Monitoring (April to September 2020) - SMCSWCSM-DJV-EW-00-PLN-GE-000234*. Sydney: Aurecon GHD Joint Venture.

2.2 Overview of the groundwater program

The groundwater baseline monitoring program for CSM commenced in September 2018, as per the CGWMP. The first six monthly baseline monitoring period was completed in February 2019 (AGJV, June 2019) and due to a number of constraints six shallow monitoring wells were available post baseline monitoring.

The second six monthly monitoring period was completed between April 2019 and September 2019 (AGJV, January 2020). During March 2019 five deep monitoring wells and an additional two shallow monitoring wells were installed. Therefore, the report represents the baseline monitoring for the deep monitoring wells as only shallow construction activities had begun and the construction phase for the shallow monitoring wells. Of note, a tunnel boring machine (TBM) pass through the site during this monitoring period.

In addition to this, LOR excavated a former gasholder which was identified during heritage excavation and piling works at the south-western corner of the Metro Box footprint in April 2019. Five additional groundwater monitoring wells were installed by ADE in April and August 2019 in the vicinity of the former gasholder to assess the potential groundwater impacts. GASW_BH7 and GASW_BH10 are positioned within the gasworks former gasholder, GASW_BH23 and GASW_BH25A are within the former gasholder footprint and GASW_BH11 is outside the former gasholder footprint. These monitoring wells were incorporated into the ongoing groundwater monitoring program from June 2019 (GASW_BH7, GASW_BH10 and GASW_BH11) and September 2019 onwards (GASW_BH23 and GASW_BH25A). It should be noted that the latter two shallow monitoring wells (GASW_BH23 and GASW_BH25A) are unlikely to be representative of the broader shallow groundwater aquifer, given the gasholder structure (brick wall and concrete / puddle clay base) may act as an aquitard.

The third (AGJV, June 2020) and fourth (AGJV, December 2020) six monthly monitoring reports were completed between October 2019 and March 2020, and April 2020 and September 2020 respectively, documenting groundwater conditions during the construction phase of the project.

A number of constraints have been encountered throughout the current and previous monitoring periods in relation to availability, access and condition of monitoring wells. Monitoring wells have been destroyed and new monitoring wells have been installed. These are discussed in this report and the AGJV reports mentioned above, and are summarised in **Table B1, Appendix B.**

2.3 Analytical suite changes

Analysis of polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs) and organophosphorus pesticides (OPPs) was conducted between September 2018 and June 2020. These analytes have not been included in the analytical scope since June 2020 due to the consistent absence of detections. In December 2019, cyanide and polycyclic aromatic hydrocarbons (PAH) compounds were analysed as trace rather than standard detection limits to improve the clarity of assessment for these analytes.

There were no changes to the analytical suite during this monitoring period.

2.4 CGWMP monitoring wells amendments

Due to the destruction and replacement of monitoring wells as the construction progresses, the following variations in **Table 2-1** of sampling locations throughout the project entirety are noted as compared to those listed in Table 7.3 of the latest CGWMP (LOR, August 2020):

Table 2-1 – Summary of monitoring wells removed from the monitoring program

Monitoring wells removed from the monitoring program	Targeted aquifer	Status
CSM_BH05	Deep aquifer	Destroyed (August 2019)
SRT_BH063	Shallow aquifer	Destroyed (February 2020)
SRT_CBH015	Shallow aquifer	Destroyed (January 2020)
SRT_CBH017	Shallow aquifer	Destroyed (February 2020)
SRT_BH059	Shallow aquifer	Destroyed (January 2021)
CSM_BH09S	Shallow aquifer	Destroyed (January 2021)
CSM_BH11S	Shallow aquifer	Destroyed (March 2021)

The following **Table 2-2** shows the monitoring wells that have been added to the monitoring program throughout the entirety of the project.

Table 2-2 - Summary of monitoring wells added to the monitoring program

Monitoring wells added to the monitoring program	Targeted aquifer	Status
GASW_BH7	Shallow aquifer	Sampled from June 2019, Became dry from April 2020. New well targeting gasworks.
GASW_BH10	Deep aquifer	Sampled from June 2019. New well targeting gasworks.
GASW_BH11	Shallow aquifer	Sampled from June 2019. New well targeting gasworks.
GASW_BH23	Shallow aquifer	Sampled from September 2019. New well targeting gasworks.
GASW_BH25A	Shallow aquifer	Sampled from September 2019. New well targeting gasworks.
CSM_BH11S -since destroyed (see Table 7.1 above)	Shallow aquifer	Installed prior to September 2020 monitoring event. Dry well, water was not encountered. New well providing for coverage to the north east

SRT_BH050	Shallow aquifer	Sampled from March 2020. New well providing coverage to the west.
SRT_BH052	Shallow aquifer	Sampled from October 2018 New well providing coverage to the north west.

2.5 Construction works

The construction of the Metro box works (MBW) has being undertaken in stages:

- Enabling works: the demolition of the platforms and preparation earthworks.
- MBW excavation works commenced with piling works, including perimeter piles and plunge columns, to support the MBW excavation.
- MBW excavation.
- Installation of metro infrastructure and final fit out of Metro Station.

MBW excavations occurred over several stages within the MBW footprint. The MBW excavation was supported by the perimeter in-situ bored piles, which during the MBW excavation works were exposed at the excavation walls and the excavation wall was subsequently shotcreted to stabilise and secure the excavation walls. A program of works undertaken in presented in **Table 2-3**.

Table 2-3 – Construction program of works

Stage of works	Date commenced	Date completed
Enabling works	17 October 2018	13 December 2018
Piling works	10 December 2018	15 August 2019
MBW excavation works	11 February 2019	In progress

The following **Table 2-4** shows the average excavation levels in relative height of each of the grid lines (GL) along the MBW. The grid lines are looking down on a 2-D model of the Metro Box

Table 2-4 – Average excavation depths in m RL at each month

Locations	22 December 20	29 January 21	22 February 21	26 March 21
GL 7-8	3.655	0.9	-5.8	-5.8
GL 8-9	3.655	-2.2	-5.8	-5.8
GL 9-10	3.654	-4.6	-5.7	-5.7
GL 10-11	3.748	-5.7	-5.8	-5.8
GL 11-12	3.709	-5.6	-5.8	-5.8
GL 12-13	3.391	-4.2	-5.8	-5.8
GL 13-14	4.188	-4.2	-5.8	-5.8
GL 14-15	7.009	-2.2	-5.6	-5.8
GL 15-16	7.072	-0.3	-2.5	-5.8
GL 16-17	7.085	0.9	-1.9	-5.8
GL 17-18	6.908	6.7	-1.2	-5.8
GL 18-19	7.318	8.4	6.3	-5.4
GL 19-20	7.948	4.5	4.5	-0.7
GL 20-20.7	5.688	3.7	3.7	3.7
GL 20.7-21	4.838	3.7	3.7	3.6
GL 21-22	4.276	3.7	3.7	3.5
GL 22-23	3.655	3.7	3.7	3.7

The table shows that the majority of the deep excavation activities have occurred during December 2020 and January 2021 monitoring periods. The following is also noted:

- 13 November 2020 the majority of the MBW had been excavated to 3.7 m RL with the deepest area was around grid line 11 at 3 m RL.
- 22 December 2020 the MBW had been excavated to the deepest of -2.5 m RL and an average of 1.9 m RL.
- 29 January 2021 the MBW had been excavated to the deepest of -6.3 m RL and an average of 0.18 RL.
- 22 February 2021 the MBW has been excavated to the deepest of -6.0 m RL and an average of -1.9 RL.
- 26 March 2021 the MBW had been excavated to the deepest of -6.0 m RL and an average of -3.8 RL.

The MBW excavation reached final depth by the January 2021 monitoring period with the following months showing the further excavation of the void to depth has occurred.

During the excavation works, LOR are required to monitor the water discharge. The following **Table 2-5** shows the total amount of water discharge each month. It is noted that water discharged is inclusive of site water, increasing with greater volumes of rainfall and surface run-off. The total water discharge for this monitoring period is almost double from the previous 6-month monitoring period that reported a total of 10,737.34 KL. March 2021 recorded the highest water discharge. This coincides with the excavation to depth of a large proportion of the MBW being completed and an increased amount of rainfall received (15 mm monthly average) when compared to average monthly rainfall recorded between October 2020 and February 2021 (2 – 4.5 mm) (BOM, 2021).

Table 2-5 – Water discharge from the project (monthly)

Month	Amount of water discharge (KL)
October 2020	2,494.35
November 2020	1,920.19
December 2020	2,774.58
January 2021	2,923.28
February 2021	3,658.28
March 2021	6,223.01
Total	19,993.69

AGJV noted that a tunnel boring machines passed beneath the CSM project excavation during July and August 2019. The TBM would have been at depths of 15 to 20 m below ground level (top of invert of tunnels is -0.6 RL). The TBM movement had significant impact on the groundwater levels and is further discussed in the AGJV. (January 2020) report and **Section 5.3**

The MBW designs have been amended due to the discovery of the gasworks area, and resultant human health risk assessment (AGJV, 2020a). The revised designed included:

- A partial cut off structure which included increasing the shotcrete liner from 150 mm thickness to 250 mm with inclusion of a water proof admixture and steel fibres to manage crack control. The expected extent of this works was proposed to be at least two shotcrete panels beyond the visually assessed extent of contaminated fill and the full depth of the pile retention wall (underside of the Concourse Floor Slab).
- A sika waterproof liner is to be located over the internal side of the shotcrete liner and tapped in place to reduce further seepage.
- Drainage separation works which will include preferential drainage of groundwater from behind the shotcrete walls using more resistant cupro nickel slotted pipe.

AGJV also noted that the footprint of the Metro Box was excavated to the designed depth (i.e. 30 m below ground level) during the current monitoring period, which had a significant impact on groundwater levels. This is further discussed in **Section 5.3**.

3 Basis for assessment

3.1 Relevant guidelines

The framework for the contamination assessment made herein, was developed in accordance with guidelines "made or approved", by the NSW EPA under Section 105 of the *Contaminated Land Management Act, 1997*. These guidelines include, but are not limited to the following:

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Australian and New Zealand Environment and Conservation Council & Agriculture and Resource Management Council of Australia and New Zealand (ANZECC & ARMCANZ, 2000a).
- Consultants Reporting on Contaminated Land: Contaminated Land Guidelines, NSW EPA (NSW EPA, 2020).
- Guidelines for Managing Risks in Recreational Water, National Health and Medical Research Council (NHMRC, 2008).
- National Environment Protection (Assessment of Site Contamination) Amendment Measure (No.1) (NEPM), National Environment Protection Council - NEPC (NEPC, 2013).
- NSW EPA Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (NSW EPA, 2015).

3.2 On-site human health screening levels

The NEPM Health Screening Levels (HSLs) for petroleum hydrocarbons for commercial / industrial land use in sand (NEPC, 2013) have been adopted (HSL D). This criterion was adopted to characterise the risk posed to CSM construction workers and future metro infrastructure users and operation / maintenance workers from potential hydrocarbon vapour intrusion from potentially impacted groundwater. AGJV noted that NEMP HSLs are more stringent than other published screening criteria for petroleum hydrocarbons (i.e. CRC CARE guidelines for intrusive maintenance workers via vapour intrusion and direct contact pathways).

Recreational criteria, in reference to National Health and Medical Research Council (NHMRC, 2008) have been used as a conservative screening tool for on-site intrusive maintenance workers coming into direct contact with groundwater. These guidelines are associated with incidental ingestion of water and are generally based on incidental consumption of 200 millilitres (mL) of impacted water per day, as opposed to two litres (L) per day which the Australian Drinking Water Guidelines (ADWG) (version 3.6 Updated March 2021) are based on (NHMRC, 2011). As stated in the NEPM (NEPC, 2013), recreational criteria have been adopted by applying a multiplication factor of ten to ADWG health-based criteria (NHMRC, 2011).

On this basis, criteria are expected to be more representative of the type of exposure that will occur to construction and maintenance workers during construction and operation of the project. Commercial users of the metro/commuters have not been considered as it is assumed these receptors will not come into contact with the groundwater.

3.3 Off-site human health

No potable water abstractions have been identified in hydraulic connection with groundwater beneath the CSM. The project area is also supplied by reticulated town water. Therefore, drinking water guidelines have not been considered for off-site human health receptors.

The nearest ecological receptor is located approximately one kilometre (km) north-west of the CSM (Cockle Bay and Blackwattle Bay). Potentially impacted groundwater has the potential to attenuate across this distance, however groundwater will be treated before being discharged into these Bay's during dewatering activities. These water bodies are primarily associated with recreational boating and potential fishing activities only, and as such, recreational criteria, in reference to NHMRC (2008) and ADWG (NHMRC, 2011), have been adopted.

3.4 Ecological criteria

Based on the site hydrogeology and client-supplied information, treated groundwater from the project will be discharged to the aquatic systems of Cockle Bay and/or Blackwattle Bay located approximately 1 km north-west of the project area. As such, NEPM Groundwater Investigation Levels (GILs) for protection of marine water ecosystems have been adopted (NEPC, 2013). GILs comprise screening criteria outlined in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC & ARMCANZ, 2000a). It is noted that the ANZECC & ARMCANZ has since been updated (ANZG, 2018), however guideline values have remained the same, and therefore the GILs, have also remained the same.

For assessment of pH values in groundwater, the trigger value for estuaries in NSW have been adopted from Volume 2 of ANZECC & ARMCANZ (ANZECC & ARMCANZ, 2000b). Screening criteria for estuaries was adopted as this was considered to be most representative of the receiving water environment (being Cockle Bay and/or Blackwattle Bay).

3.5 Aggressivity assessment criteria

The exposure classification criteria for concrete piles and steel piles presented in Australian Standard AS 2159-2009 *Piling – Design and installation* (Standards Australia, 2009) have been selected for assessing aggressivity of the groundwater.

3.6 Ochre potential assessment criteria

The criteria adopted for the assessment of ochre formation were based on Stuyt, Dierickx & Martinez Beltran (2005), and focused on ferrous iron concentrations in groundwater. These criteria state:

- Ferrous iron concentrations less than 1 mg/L indicate that ochre formation potential is negligible.
- Ferrous iron concentrations between 1 and 5 mg/L indicate that ochre formation potential is small.
- Ferrous iron concentrations between 5 and 10 mg/L indicate that ochre formation potential is moderate.
- Ferrous iron concentrations between 10 and 25 mg/L indicate that ochre formation potential is high.
- Ferrous iron concentrations more than 25 mg/L indicate that ochre formation potential is very high.

3.7 Groundwater drawdown

The groundwater-related management and mitigation measures in Chatswood to Sydenham Environmental Impact Statement (EIS) and Revised Environmental Mitigation Measures (REMM), as stated in the REMM (AGJV, 2020), include:

REMM GWG1	A detailed geotechnical model for the project would be developed and progressively updated during design and construction. The detailed geotechnical model would include: ▪ Assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain ▪ Predicted changes to groundwater levels, including at nearby water supply works. Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings / structures would be carried out and specific measures implemented to address the risk of damage. With each progressive update of the geotechnical model the potential for exceedance of the following target changes to groundwater levels would be reviewed: ▪ Less than 2.0 metres – general target. ▪ Less than 4.0 metres – where deep building foundations present. ▪ Less than 1.0 metre – residual soils. ▪ Less than 0.5 metre – residual soils (Blues Point) (fill / Aeolian sand). Where a significant exceedance of target changes to groundwater levels are predicted at surrounding land uses and nearby water supply works, an appropriate groundwater monitoring program would be developed and implemented. The program would aim to confirm no adverse impacts on groundwater levels or to appropriately manage any impacts. Monitoring at any specific location would be subject to the status of the water supply work and agreement with the landowner. The geotechnical model and groundwater monitoring program would be developed in consultation with the Department of Primary Industries (Water).

This report includes an assessment of groundwater drawdown related to CSM works in **Section 5.3**.

4 Field investigation

4.1 Groundwater sampling dates

Groundwater sampling was conducted at accessible groundwater monitoring wells on the following dates:

- Event 25 – 26 to 28 October 2020
- Event 26 – 18 to 20 November 2020
- Event 27 – 21 to 22 December 2020
- Event 28 – 27 to 29 January 2021
- Event 29 – 17 to 19 February 2021
- Event 30 – 17 to 18 March 2021

4.2 Groundwater monitoring well status

The groundwater monitoring wells sampled during the current six-monthly program are presented in **Table B1, Appendix B**. The location of these monitoring wells is displayed in **Figure 1, Appendix A**.

Three wells were destroyed during the current monitoring period:

- SRT_BH059, a monitoring well targeting the shallow groundwater aquifer located on Platform 18/19. This well was destroyed following the December 2020 monitoring event as ongoing construction of the CSM works did not permit the well to be kept.
- CSM_BH09S, a monitoring well targeting the shallow groundwater aquifer located at the Sydney Yard. This well was destroyed following the December 2020 monitoring event.
- CSM_BH11S, a monitoring well targeting the shallow groundwater aquifer located on Platform 22. This well was destroyed following the February 2021 monitoring event. It is also noted that this well had not yielded water since its installation in late 2020.

In reference to recommendations outlined in **Section 7.2**, the installation of additional monitoring wells, to replace destroyed wells mentioned above, should be undertaken to maintain consistent monitoring throughout the program at various locations of the CSM project area. It is noted groundwater well CSM_BH12S was installed following the March 2021 monitoring event to replace destroyed well CSM_BH09S. This well will be incorporated into the monitoring program for future events. An additional two wells are also proposed for installation in the eastern and southern portions of the project area.

4.3 Groundwater level gauging and monitoring methodology

The method used to gauge the monitoring wells is described below:

- Prior to gauging the standing water level (SWL) within each well, monitoring wells were left to stand for approximately five minutes to stabilise with atmospheric conditions.
- The depth of the SWL, depth of well and non-aqueous phase liquids (NAPL), if present, was measured at each monitoring well using an electronic interface probe (IP). All measurements were recorded from the top of the well casing.

During this monitoring period, data loggers present within the following wells were used to measure groundwater levels across the monitoring period:

- CSM_BH10S, a shallow monitoring well on Eddy Avenue.
- SRT_BH047, a shallow monitoring well on platforms 6/7.
- CSM_BH02, a deep monitoring well on platforms 10/11.
- CSM_BH04, a deep monitoring well on Eddy Avenue.
- CSM_BH06, a deep monitoring well on Ambulance Avenue.

The groundwater levels at these monitoring wells are graphed in **Appendix C**.

4.4 Groundwater sampling methodology

Representative groundwater samples were collected from monitoring wells using the following sampling techniques:

- Each well was purged using low-flow sampling techniques (peristaltic pump or low-flow bladder pump) with dedicated Teflon-free, low-density polyethylene (LDPE) tubing. The pump inlet tube was placed in the well screen at each location, with length of tubing within each well recorded.
- Field parameters (pH, electrical conductivity (EC), oxygen reduction potential (ORP), dissolved oxygen (DO) and temperature) were measured and recorded during purging to ensure that extracted groundwater was representative of the surrounding groundwater conditions. When field parameters reached equilibrium, i.e. consecutive measurements within 10% of each other for EC, ORP, DO and pH, groundwater was deemed representative of conditions and samples were collected.
- Visual and olfactory observations were recorded, in particular, the absence or presence of a hydrocarbon sheen or odour recorded during purging.
- Retrieved groundwater samples were immediately placed into laboratory-supplied bottles suitable for requested analyses.
- Sample bottles were filled directly from the pump with a minimal amount of air contact, with vials for volatile organic analysis filled completely to minimise headspace. Samples that were to be analysed for dissolved metals were field filtered with a dedicated filter prior to placing the sample into the sample bottle.
- The containers were labelled with the project number, sample identification, date collected and sampler's initials.
- Following the collection of each sample, the bottles were placed immediately into ice-filled coolers for preservation prior to and during transportation to a National Association of Testing Authorities (NATA) accredited laboratory.
- Samples were accompanied with chain of custody documentation to the primary laboratory and were submitted within holding times appropriate for the analysis required.
- Dedicated disposable sampling equipment (i.e. tubing, bailers, filters, nitrile gloves etc.) were disposed of after each well. Reusable sampling equipment (i.e. interface probe) was decontaminated using a mixture of laboratory-supplied phosphorus-free detergent solution and potable water, and rinsed with potable tap water between each sampling location.

Calibration certificates for equipment used throughout the monitoring program are provided in **Appendix D**. Groundwater purging sheets documenting the sampling procedure at each groundwater well are included in **Appendix E.**

4.5 Groundwater analysis

The analytical schedule for groundwater is presented in **Table B2, Appendix B**. In summary the primary groundwater samples were analysed as follows:

- Eight heavy metals (arsenic, cadmium, chromium, copper, mercury, nickel, lead, zinc).
- Ferrous iron and manganese.
- Total recoverable hydrocarbons (TRH) and TRH with silica gel clean up.
- Benzene, toluene, ethylbenzene, xylene, naphthalene (BTEXN).
- Phenols.
- Trace polycyclic aromatic hydrocarbons (PAH).
- Trace cyanide.
- Ammonia.
- Total dissolved solids (TDS) and total suspended solids (TSS).
- Anions and cations.

Field intra- and inter-laboratory duplicate samples were collected and submitted for laboratory analysis for heavy metals, TRH, BTEXN and trace PAH during each monitoring event. Trip blanks and trip spike samples were submitted with each batch of samples, and were analysed for BTEX and volatile TRH. One rinsate sample was collected per monitoring event from reusable equipment and analysed for heavy metals.

Analysis of groundwater samples were undertaken by NATA accredited laboratories (Eurofins-MGT and ALS Environmental) for the required analysis.

5 Monitoring results

5.1 Introduction

The primary aim of this section is to present the findings of the current six-monthly monitoring period (October 2020 to March 2021) as compared to the baseline monitoring periods.

5.2 Field observations

During sampling, no visual signs of contamination (such as sheens) were observed, however, organic and hydrocarbon odours were noted in the following wells:

- GASW_BH10 (sulphurous/organic odour noted in October, November, December 2020 and February 2021).
- GASW_BH11 (slight organic odour noted in November 2020).
- GASW_BH23 (hydrocarbon odour noted in October, November 2020, January, February and March 2021).
- GASW_BH25A (hydrocarbon odour noted in October and December 2020, January, February and March 2021).

Field observations are summarised in Table B5, Appendix B. The groundwater purging sheets are included in Appendix E.

5.3 Groundwater levels and trends

5.3.1 Gauging results – shallow aquifer monitoring wells

The groundwater gauging data for shallow wells is presented in **Table B4, Appendix B.**

As presented in **Figure 1** below, the groundwater elevations of the shallow aquifer ranged between 11.083 m AHD in CSM_BH10S (November 2020) and 18.926 m AHD in GASW_BH25A (March 2021).

In December 2020 (event 27) the gauging result for GASW_BH25A was not recorded.

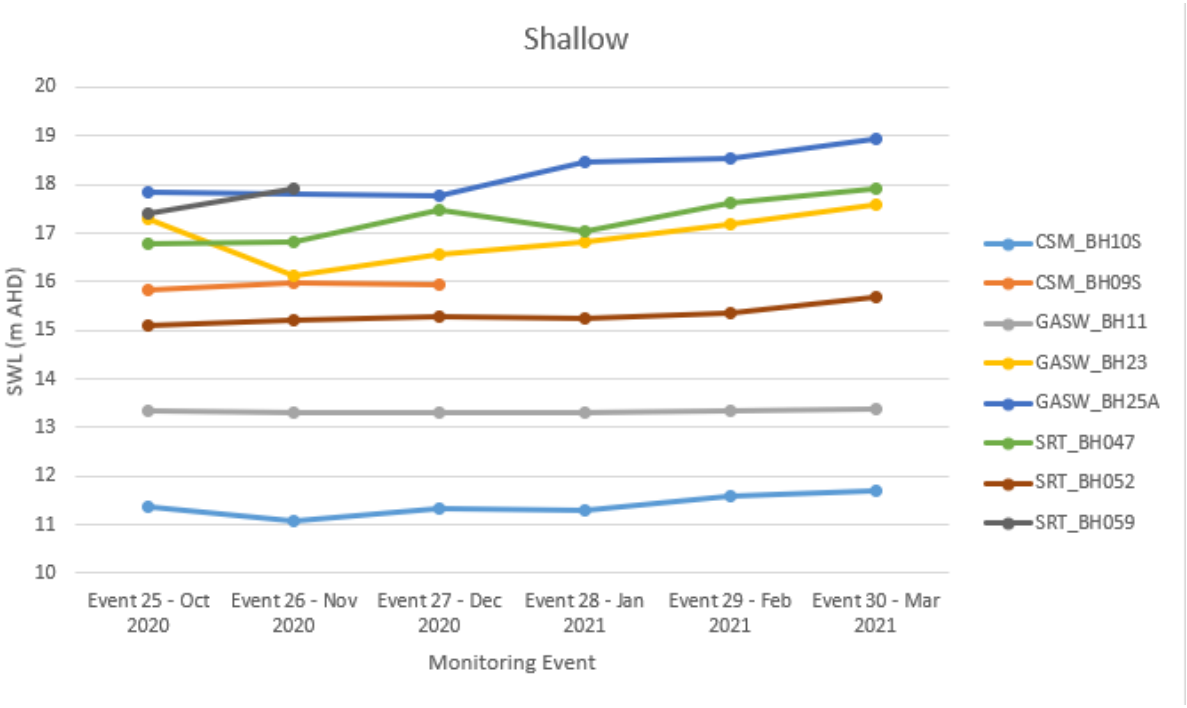

Figure 1 - Standing water level – Shallow aquifer monitoring wells

As presented in **Figure 1**, there does not appear to be any reduction in groundwater elevations with groundwater levels slightly increasing towards March 2021, despite excavations of the metro box during the monitoring period.

Monitoring wells GASW_BH7 was gauged dry for the six month monitoring period. Monitoring well SRT_BH050 has not been surveyed to a relative height and therefore not included on the graph. The groundwater level for SRT_BH050 has remained relatively consistent with the previous data and gauged dry in October 2020 and January 2021. Monitoring well CSM_BH11s was gauged dry from October through to February 2021, however this well had not been surveyed and then was destroyed after February 2021. All three wells were not included in the shallow graph.

The inferred shallow aquifer groundwater flow direction is presented in **Figure 2, Appendix A** and appears to flow broadly to the north-east to south-east.

5.3.2 Gauging results – deep aquifer monitoring wells

The groundwater gauging data for deep wells is presented in **Table B4, Appendix B.**

As presented in **Figure 2** below, the groundwater elevations of the deep aquifer ranged between -6.076 m AHD in CSM_BH04 (March 2021) and 1.59 m AHD in CSM_BH06 (November 2020).

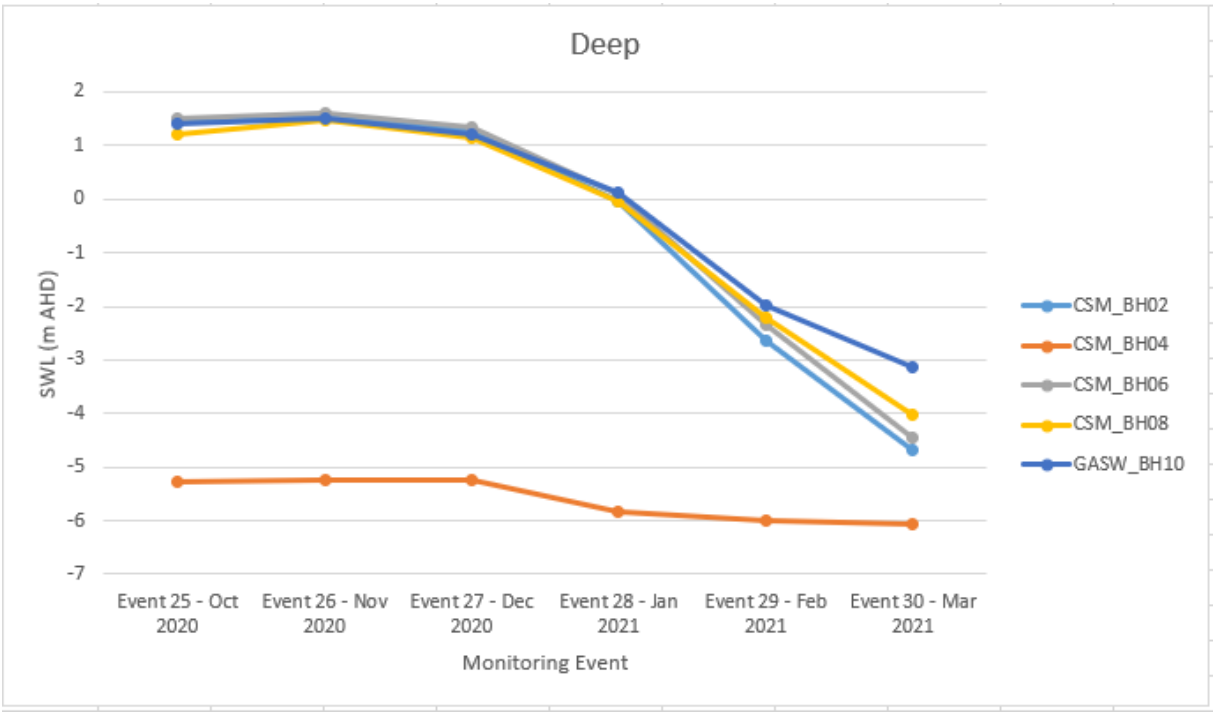

Figure 2 - Standing water level (m AHD) - Deep aquifer monitoring wells

As presented in Figure 2, a significant reduction in groundwater elevation at all sampled groundwater wells was observed during the current monitoring period after the November 2020 sampling event. A sharp decline in elevations was apparent between the January and February 2021 events, where elevations continued to drop steadily throughout the monitoring period. This coincided with the MBW deep excavation and the associated de-watering activities as discussed in **Section 2.5**.

Groundwater levels at CSM_BH04 have remained lower than the other deeper bore and this was discussed further in **Section 5.3.4.2**.

The inferred deep aquifer groundwater flow direction is presented in **Figure 3, Appendix A** and is broadly to the north east.

5.3.3 Groundwater levels – gas works

The groundwater levels within the gasworks area have increased within the shallow aquifer at GASW_BH23 and GASW_BH25A (presented on Figure 1) since the December 2020 event. The increase may be caused by the increase in rainfall during this period as well as the cut-off wall that has been installed to limit the amount of groundwater migration from the gasworks area into the MBW. The groundwater level has remained stable at GASW_BH11 with a lower groundwater elevation and a slower rate of seepage. GASW_BH11 is screened outside of the gasworks waste and within the residual/shale.

GASW_BH10 extends deeper than the cut-off wall and within the sandstone aquifer and therefore has not be affected by the construction of the wall.

5.3.4 Data loggers

The groundwater levels recorded by groundwater data loggers are presented with the daily rainfall data from Bureau of Meteorology Sydney Botanic Gardens weather station (066006) in **Appendix C**. The rapid decline and recovery in groundwater elevations at the time of manual gauging are associated with groundwater sampling works and do not reflect the background groundwater conditions.

5.3.4.1 CSM_BH02

CSM_BH02 is a deep monitoring well screened within sandstone.

Groundwater levels at CSM_BH02 generally ranged between -4.666 and 1.808 m AHD by data logger during the current monitoring period. These are the lowest and highest groundwater levels recorded in this well during the entire monitoring program (September 2018 to March 2021). Groundwater level data was only available from August 2019 onwards and therefore does not show the groundwater levels when the TBM was going through. The data shows the groundwater levels recovering after the TBM went through.

During the current monitoring period, an abrupt drop in groundwater level was observed following the December 2020 monitoring event, with water levels temporarily falling from 1.23 m AHD on the final day of the December 2020 event (22 December 2020) to -0.044 m AHD on the final day of the January 2021 event (29 January 2021). Groundwater levels continued to drop to -4.666 m AHD in March 2021. This is likely due to de-watering activities associated with the Metro Box excavation causing groundwater drawdown in this well.

Groundwater levels at CSM_BH02 did not respond to rainfall events indicating a reduced connection with rainfall directly on the site.

5.3.4.2 CSM_BH04

CSM_BH04 is a deep monitoring well screened within sandstone.

The groundwater levels at CSM_BH04 generally ranged between -5.173 and -9.552 m AHD by data logger during the current monitoring period. These are the lowest and highest groundwater levels recorded in this well during the entire monitoring program (September 2018 to March 2021).

The groundwater levels have not recovered to the levels prior to the TBM in 2019. The groundwater level remained approximately 2 to 3 m lower than prior initial groundwater levels. This well is located to the north near Eddy Avenue and has a well depth of 35 m. There are three potential possibilities as to the groundwater levels not recovering after the TBM. They include:

- After the TBM moved through the grouting may have been incomplete in one of the sections and has become a conduit to the geological structure (dyke) located to the north of Eddy Avenue.
- The cross passage (XP21) located approximately 90 m to the north may be extracting groundwater from the area with CSM_BH04 within the cone of depression. The construction of the cross passages is likely to create a sink and be unlined for large period.
- Groundwater levels at CSM_BH04 did not respond to rainfall events indicating a reduced connection with rainfall on site.

5.3.4.3 CSM_BH06

CSM_BH06 is a deep monitoring well screened within sandstone.

The groundwater levels at CSM_BH06 ranged between -4.44 and 1.74 m AHD during the current monitoring period. These are the lowest and highest groundwater levels recorded in this well during the entire monitoring program (September 2018 to March 2021).

During the current monitoring period, an abrupt drop in groundwater level was observed following the December 2020 monitoring event, with water levels temporarily falling from 1.29 m AHD on the final day of the December 2020 event (22 December 2020) to -0.18 m AHD on the final day of the January 2021 event (29 January 2021). Groundwater levels continued to drop to -4.44 m AHD in March 2021. This is likely due to de-watering activities associated with the Metro Box excavation causing groundwater drawdown in this well.

Groundwater levels at CSM_BH06 did not respond to rainfall events indicating a reduced connection with rainfall directly on the site.

5.3.4.4 CSM_BH10S

CSM_BH10S is a shallow well with the well screened within residual soil (clayey sand and sandy clay).

The data logger was retrieved from SRT-CBH017 prior to being destroyed, and relocated to CSM_BH10S, where it has been recording data since January 2020.

The groundwater levels at CSM_BH10S ranged between 6.94 and 11.75 m AHD during the current monitoring period, and between 6.94 and 11.9 m AHD during the monitoring period between January 2020 and March 2021. The groundwater levels at CSM_BH10S slightly responded to rainfall events.

There did not appear to be a clear fall in groundwater elevations associated with ongoing excavation of the metro box to the top of bedrock and therefore limited hydraulic connection between the shallow and deeper aquifers.

5.3.4.5 SRT_BH047

SRT_BH047 is a shallow monitoring well with the well screened across sandstone and laminate / residual soil.

The groundwater levels at SRT_BH047 generally ranged between 15.15 and 17.9 m AHD during the current monitoring period, and between 15.15 m AHD and 18.2 m AHD during the monitoring period between September 2018 and March 2021. The groundwater levels responded to rainfall events. There did not appear to be any fall in groundwater elevations associated with ongoing excavation of the metro box to the top of bedrock.

5.3.5 Assessment of groundwater drawdown

The following groundwater monitoring well locations have been selected for assessment given that these monitoring wells have been gauged or installed with a data logger across a relatively long period of time (i.e. a minimum six months) and on the boundary of the Central Station footprint. These wells are considered to represent the groundwater levels of the surrounding areas.

These groundwater monitoring locations are shown in **Figure 1, Appendix A**.

Graphs showing the groundwater levels retrieved from data loggers and obtained during sampling events by gauging are included in **Appendix C**. Graphs showing the groundwater levels obtained during all sampling events by gauging are included in **Appendix C**.

Table 5-1 – Assessment of groundwater drawdown at selected monitoring wells

Well ID	Location	Well depth and targeting aquifer	Monitoring period	Data source	Monitoring findings
CSM_BH02	On the southern end of platforms 10 and 11, and immediately west of Metro Box footprint	35 m targeting aquifer with sandstone	August 2019 to March 2021	Gauging / Data logger	Groundwater levels ranged between -4.666 and 1.808 m AHD by data logger (excluding sampling response) and between -4.666 and 1.554 m AHD by gauging during the current monitoring period. The groundwater levels at CSM_BH02 during the current monitoring period fluctuated by almost 5.0 m. Groundwater levels were relatively stable at CSM_BH02. The groundwater levels at CSM_BH02 were only available from the data logger from the end of August 2019. Data before that was lost due to the significant decline of groundwater levels likely caused by undermining of the TBM and technical issues with the data logger due to insufficient water. Based on the available data, groundwater levels at CSM_BH02 have steadily recovered following impact by the TBM. across the overall monitoring period to date, with the exception of a sharp decline in groundwater levels by approximately 5 m occurring after the December 2020 event.
CSM_BH04	On Eddy Avenue and north of Metro Box footprint and Central Station footprint	35 m targeting aquifer with sandstone	April 2019 to March 2021	Gauging / Data logger	Groundwater levels ranged between -9.552 and -5.173 m AHD by data logger (excluding sampling response) and between -6.076 and -5.226 m AHD by gauging during the current monitoring period. Groundwater levels were relatively stable between -5.1 to -6.0 during the current monitoring period, while fluctuations were observed to approximately 4.0 m. Groundwater levels were relatively stable at CSM_BH04 across the overall monitoring period until the tunnel boring machine moved through CSM project area in July 2019, resulting in groundwater drawdown of approximately 7 m. Groundwater levels have steadily recovered, however remain approximately 2-3 m lower than initial groundwater levels measured in April 2019.

CSM_BH06	On Institute Drive East of Metro Box footprint and south of Central Walk footprint	35 m targeting aquifer with sandstone	April 2019 to March 2021	Gauging / Data logger	Groundwater levels ranged between -3.30 and 1.50 m AHD by data logger (excluding sampling response) and between -4.4 and 1.59 m AHD by gauging during the current monitoring period. The groundwater levels during the current monitoring period, according to data logger information, fluctuated by approximately 5.0 m. Groundwater levels at CSM_BH06 were relatively stable across the overall monitoring period until the TBM moved through CSM project area in July 2019 which resulted drawdown of groundwater level of about 3 m. Groundwater levels have steadily recovered, however a sharp decline in groundwater levels by approximately 5.0 m occurring after the December 2020 event.
CSM_BH08	On Ambulance Drive west of Metro Box footprint / Central Station footprint	35 m / aquifer within sandstone	April 2019 to March 2021	Gauging	Groundwater levels ranged between -4.036 and 1.484 m AHD during the current monitoring period. Groundwater levels fluctuated by approximately 5.0 m during the current monitoring period between December 2020 and March 2021. Groundwater levels were relatively stable across the overall monitoring period until the tunnel boring machine passed Central Station in July 2019 which resulted drawdown of groundwater level of about 3 m. Then the groundwater levels have slowly recovered and stabilised to initial groundwater levels until December 2020 decline due to the excavation of the Metro box.
GASW_BH10	In Sydney Yard within the uncovered gasworks footprint and immediately west of Metro Box footprint	25 m / aquifer with sandstone	June 2019 to March 2021	Gauging	Groundwater levels ranged between -3.127 and 1.513 m AHD during the current monitoring period. Groundwater levels fluctuated by approximately 4 m during the current monitoring period between December 2020 and March 2021. Groundwater levels ranged between -3.127 and 8.118 and m AHD during the overall monitoring period. However, AGJV consider the first gauged water level of 8.118 m AHD did not represent the equilibrium groundwater conditions. From the second monitoring event in July 2019, the groundwater levels fluctuated within a range less than 1.65 m prior to the decline in December 2020 due to the excavation of the Metro box.

SRT_BH047	On platforms 6 / 7 west of Metro Box footprint	7 m / aquifer between residual soil and bedrock sandstone	September 2018 to March 2021	Gauging / Data logger	Groundwater levels ranged between 15.15 and 17.9 m AHD by data logger (excluding sampling response) and between 16.785 and 17.90 m AHD by gauging during the current monitoring period. The groundwater levels at SRT_BH047 fluctuated by approximately 2.0 m during the current monitoring period. Groundwater levels responded to rainfall. Groundwater level fluctuation during the overall monitoring period was approximately 2.5 m.
SRT_BH052	On platforms 6 /7 west of Metro Box footprint	8 m / aquifer with sandstone	October 2018 to March 2021	Gauging	Groundwater levels ranged between 15.106 and 15.70 m AHD during the current monitoring period, and 15.03 and 16.4 m AHD during the entire monitoring period. Fluctuations were less than 1.0 m during the current monitoring period. Groundwater level fluctuation during the overall monitoring period was approximately 1.5 m.
SRT_BH059	On platforms 18 / 19 west of Metro Box footprint and south of Central Walk footprint	6 m / aquifer with shale / sandstone	October 2018 to November 2020	Gauging	Groundwater levels ranged between 17.394 and 17.925 m AHD during the current monitoring period and 17.95 and 19.86 m AHD during the entire monitoring period. Fluctuations were less than 0.5 m during the current monitoring period. However, this well was destroyed in November 2020. Groundwater level fluctuation during the overall monitoring period was approximately 2.5 m.
CSM_BH09S	In Sydney Yard south of Metro Box footprint	6.5 m / aquifer between fill and weathered shale	April 2019 to December 2020	Gauging	Groundwater levels ranged between 15.817 and 15.947 m AHD during the current monitoring period and 15.76 and 16.10 m AHD during the entire monitoring period. Fluctuations were less than 0.5 m during the current monitoring period. However, this well was destroyed in December 2020. Groundwater level fluctuation during the overall monitoring period was approximately 1.0 m.

CSM_BH10S	On Eddy Avenue and north of Metro Box footprint and Central Station footprint	10 m / aquifer within residual soil	April 2019 to March 2021	Gauging / Datalogger from January 2020	Groundwater levels ranged between 6.94 and 11.75 m AHD (excluding sampling response) by data logger and between 11.083 and 11.703 m AHD by gauging during the current monitoring period. The groundwater levels during the current monitoring period, according to data logger information, fluctuated by approximately 5.0 m. Groundwater levels at this monitoring location remained relatively stable between 11 – 12 m AHD, while fluctuations were observed less than 1 m throughout the entire monitoring period after the initial monitoring point. .

Based on the information presented in **Table 5-1**, groundwater within the shallow aquifer in wells surrounding Central Station / CSM footprint suggested a drawdown of generally less than 2.5 m. Groundwater levels in the deep aquifer within bedrock in wells surrounding Central Station / CSM project footprint suggested a drawdown of approximately 5 m.

During this time, it is understood that the Metro Box was excavated to its designed depth as discussed in **Section 2.5** and associated dewatering activity was enhanced as shown in Table 2-5. Groundwater levels in shallow wells did not respond and indicates a limited hydraulic connection with the deeper aquifer. Excessive drawdown in deep wells is considered to be influenced by the dewatering activity associated with the Metro Box excavation during the current monitoring period. AGJV consider this deep aquifer groundwater drawdown to be short-term and future monitoring rounds will determine whether groundwater levels have been recovered.

AGJV completed a hydrogeological inflow assessment in 2018 and the details of the assessment and findings are included in Hydrogeological Inflow Assessment Report (SMCSWCSM-LOR-SMC-GE-REP- 000202, dated 23 January 2019).

The hydrogeological inflow assessment report made the following findings related to groundwater drawdown:

- The modelled drawdowns in the residual soils show that drawdown is modelled as less than 4 m with the 2-4 m drawdown zone extending up to around 25 m from the edge of the excavation (and within the Central Station site). Drawdown of the track area is limited to between 0.5 and 1 m, other than a small zone immediately to the northwest and east, above a dyke zone, with up to 2 m of drawdown.
- Maximum drawdown in the upper weathered Hawkesbury Sandstone (Layer 5) was between 4 to 7 m at the southern end of the CSM box but generally less than 2 m outside the surface rail line footprint. The 1 m drawdown contour extended approximately 150-200 m around the CSM, with the 0.5 m drawdown limit generally extending to around 300 m, other than along the line of the dyke to the east. Consistent with the above, the drawdowns are likely to be exaggerated due to the high baseline conditions in the sandstone.

Based on this assessment, we are outside the original modelled predicted groundwater drawdown. There is the potential to exceed the trigger for implementation of an off-site groundwater level monitoring plan focusing on the building structures that may be impacted by this groundwater drawdown. It is worth reiterating however that groundwater drawdown in the deep aquifer is expected to be short-term and future monitoring rounds will determine whether groundwater levels have been recovered.

5.4 Field measured groundwater quality parameters

The field measured groundwater quality parameters are summarised in **Table B5**, **Appendix B**. The field purging sheets are included in **Appendix E**.

The measured temperature, electrical conductivity and pH at monitoring well locations were relatively consistent across the monitoring period. It is noted that the oxidation / reduction potential fluctuated across the monitoring period and was similar in shallow and deep monitoring wells. Dissolved oxygen concentrations were generally lower in deep wells. The electrical conductivity at all locations was generally indicative of fresh water.

5.5 Laboratory analytical results

The results have been discussed separately relative to the adopted criteria in the following sections. The laboratory results are presented in **Table B2 and Table B3, Appendix B** and the laboratory reports are provided in **Appendix F**.

The following section discusses the laboratory analytical results during the current monitoring period (October 2020 to March 2021), relative to the adopted criteria. All monitoring data from the current and previous monitoring periods are included in **Table B2, Appendix B**. Monitoring data from the current monitoring period only are presented in **Table B3, Appendix B,** and discussed below.

5.5.1 Human health and ecological screening criteria

Heavy Metals

Copper, lead, mercury, nickel and zinc all had exceedances of the adopted ecological screening criteria. Copper, nickel and zinc were above the adopted ecological screening criteria at all monitoring well sampled. Mercury exceeded the adopted ecological screening criteria once at CSM_BH02 in March 2021.

Manganese exceeded the human health adopted screening criteria once at CSM_BH04 in December 2020.

Total cyanide

The majority of groundwater samples reported total cyanide concentrations below the laboratory limit of reporting and adopted marine ecological screening criterion (0.004 mg/L). Seven samples reported concentrations exceeding this criterion, with five of these collected from GASW_BH23 (2 samples) and GASW_BH25A (3 samples).

TRH, BTEXN and PAH

The majority of the groundwater samples submitted for analysis reported concentrations of TRH fractions (with silica gel clean-up) below the laboratory limit of reporting. Reported detections above the limit of reporting were noted for TRH fractions >C_{10} to C_{16} (5 detections), >C_{16} to-C_{34} (3 detections) and >C_{34} to C_{40} (3 detections) (with silica gel clean-up) in seven wells across the project area. Detections are considered indicative of impact associated with the gasworks. There are unlimited values or no criteria for heavier TRH factions in relation to vapour intrusion.

Exceedances of adopted screening criteria were noted in the following instances:

- Concentrations of benzene in groundwater samples collected from GASW_BH23 and GASW_BH25A exceeded adopted human health and/or marine water ecological criteria across current monitoring events. The November 2020 groundwater sample collected from GASW_BH23 likewise exceeded HSL D criterion (5,000 mg/L), reporting a maximum concentration of 5,500 mg/L.

- Detections of toluene, ethylbenzene and xylene were also reported in samples collected from GASW_BH23 and GASW_BH25A, however concentrations remained below adopted assessment criteria.
- Concentrations of naphthalene were reported below the laboratory limit of reporting in four samples collected from GASW_BH23 and GASW_BH25A, however this was due to the limit of reporting being raised above adopted assessment criteria. Concentrations in remaining monitoring events and locations reported naphthalene concentrations below the limit of reporting and adopted criteria.
- Majority of groundwater samples reported concentrations of benzo(a)pyrene below the laboratory limit of reporting. Four samples collected from CSM_BH04 (1 exceedance) and CSM_BH08 (3 exceedances, 1 primary and respective duplicates) exceeded the adopted recreational human health criterion (0.1 µg/L). The maximum detected concentration was reported in CSM_BH08 (0.33 µg/L).

Phenols

The majority of groundwater samples submitted for analysis reported concentrations of phenols below the laboratory detection limit. Detections of total phenols were reported in GASW_BH10 and GASW_BH25A during December 2020 and November 2020 monitoring events, respectively. All groundwater samples reported phenol concentrations below adopted assessment criteria.

Ammonia

All groundwater monitoring wells reported concentrations of ammonia above the laboratory detection limit (0.01 mg/L) with all samples reported concentrations below adopted marine ecological criterion (0.91 mg/L).

5.5.2 Statistical analysis

The statistical analysis of analytical results for cyanide, copper, nickel, zinc, ammonia, benzene, toluene and TRH (F1) fraction from all monitoring rounds was undertaken to understand the impact of the gasworks COPC and other COPCs on bulk groundwater concentrations and thus inform the need for groundwater treatment of these analytes before discharging off-site. Not all analytes have been assessed due to reporting either low concentrations and minimal number of exceedances to date, or the absence of exceedances. Given the wide range of concentrations of COPCs in wells throughout the project area and wells within the former gasworks, the use of the 95th upper confidence limit (UCL) of the average concentrations is expected to be skewed by outliers. Rather, the actual concentration is likely to fall somewhere between the calculated median and mean values. The mean is expected to be skewed upward but less so than the UCL, and therefore has been adopted as a conservative estimate of bulk formation water quality. Testing should be conducted on wastewater entering the treatment system to accurately inform discharge treatment and management requirements. To obtain mean and median values, as presented in **Table 5-2** below, the reported concentration was recorded for each well during the current monitoring period.

The mean and median have been calculated with using half the limit of reporting where results are less than the limit of reporting.

Table 5-2 – Mean and Median statistical calculations

COPC	Mean concentration	Median concentration	Human health criteria - Vapour	Human health criteria – Recreational / Direct contact	Ecological criteria
Cyanide (mg/L)	0.0029	0.002		0.8	0.004
Copper (mg/L)	0.029	0.002		20	0.0013
Nickel (mg/L)	0.012	0.01		0.2	0.007

Zinc (mg/L)	0.066	0.044		na	0.015
Ammonia (mg/L)	0.073	0.03		na	0.91
Benzene (µg/L)	141	0.5	5,000	10	500
Toluene (µg/L)	36	0.5	Non limiting	8,000	na
TRH (F1) (µg/L)	69	10	6,000	na	na

na = not available

The calculated mean and median cyanide concentrations are less than the adopted ecological criterion and human health criteria. The calculated values for cyanide are also impacted by the limit of reporting, as it is equal to the ecological criterion. The average and median concentrations of ammonia are below adopted ecological criterion.

The calculated mean concentration of benzene is in exceedance of the adopted recreational/direct contact human health criteria, while remaining below adopted HSL D vapour intrusion criteria. Concentrations of toluene and TRH (F1) are below nominated human health criteria.

The calculated mean concentrations of copper, nickel and zinc is in exceedance of the adopted ecological criteria. Groundwater may require treatment before discharging off-site.

The median and average values for all other analytes are presented in the summary statistics in **Table B2, Appendix B**.

It should be noted that these calculations are a conservative guide, and a mass balance approach may provide more representative results.

5.5.2.1 Comparison to baseline conditions

The 20th and 80th percentiles of cyanide, ammonia, copper, manganese, nickel, zinc, benzene, TRH (F1) and TRH (F2) fraction were calculated. Percentiles were calculated all monitoring well locations for selected COPCs. The 20th percentile is the value (or score) below which 20% of the observations are found. Equivalently, 80% of the observations are found above the 20th percentile. The calculated 20th and 80th percentiles for COPC in monitoring well locations are presented in. **Table 5-3** presents percentiles for the current monitoring period (October 2020 to March 2021) against the baseline (shallow from September 2018 to February 2019 and deep from April to September 2019). The **BOLD** numbers on the tables show where the current period has exceeded the baseline percentiles.

Table 5-3 - 20th and 80th percentiles of COPC at monitoring well locations

Cyanide (Total)					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: 0.004 mg/L				
	Off-site health: 0.8 mg/L				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	**0.002**	0.002	0.0025	0.005
CSM_BH04	6	**0.002**	0.002	0.0025	0.0025
CSM_BH06	6	**0.002**	0.002	0.0025	0.0025
CSM_BH08	6	**0.002**	0.002	0.0025	0.0025
CSM_BH09S	3	**0.002**	0.002	0.0025	0.0025
CSM_BH10S	6	**0.002**	0.002	0.0025	0.0025
GASW_BH10	6	**0.002**	0.002	0.0025	0.0035
GASW_BH11	6	**0.002**	0.002	0.0025	0.0067
GASW_BH23	6	**0.002**	**0.01**	0.0339	0.0978
GASW_BH25A	6	**0.002**	0.01	0.0522	0.1362
SRT_BH047	6	**0.002**	0.002	0.0025	0.0025
SRT_BH052	6	**0.002**	0.002	0.0025	0.0025
SRT_BH059	1	**0.002**	0.002	0.00395	0.0025

Ammonia					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: 0.91 mg/L				
	Off-site health: N/A				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	0.005	0.04	0.005	0.05
CSM_BH04	6	0.005	**0.07**	0.005	0.005
CSM_BH06	6	0.02	**0.06**	0.005	0.02
CSM_BH08	6	**0.01**	**0.05**	0.005	0.03
CSM_BH09S	3	0.011	0.032	0.04	0.1
CSM_BH10S	6	0.005	**0.11**	0.005	0.005
GASW_BH10	6	0.005	**0.12**	0.005	0.076
GASW_BH11	6	**0.06**	**0.35**	0.008	0.03
GASW_BH23	6	**0.06**	0.3	0.494	0.866
GASW_BH25A	6	**0.005**	0.14	0.426	0.48
SRT_BH047	6	0.005	**0.02**	0.005	0.005
SRT_BH052	6	0.005	**0.04**	0.005	0.005
SRT_BH059	1	0.005	0.005	0.005	0.005

Copper (Filtered)					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: 0.0013 mg/L				
	Off-site health: 20 mg/L				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	0.0005	0.0046	0.0005	0.0005
CSM_BH04	10	0.0017	**0.0056**	0.0005	0.003
CSM_BH06	6	**0.002**	**0.025**	0.0005	0.0096
CSM_BH08	11	0.001	**0.009**	0.0005	0.0008
CSM_BH09S	3	0.0416	**0.1004**	0.0005	0.002
CSM_BH10S	8	0.0028	**0.1128**	0.001	0.003
GASW_BH10	6	0.0005	**0.002**	0.0005	0.0005
GASW_BH11	6	**0.004**	**0.14**	0.0005	0.003
GASW_BH23	6	0.003	**0.016**	0.0005	0.0014
GASW_BH25A	6	0.005	**0.052**	0.0005	0.002
SRT_BH047	6	**0.003**	**0.11**	0.0064	0.0204
SRT_BH052	6	**0.0005**	0.016	0.012	0.063
SRT_BH059	1	0.014	0.014	0.0005	0.042

Manganese (Filtered)					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: N/A				
	Off-site health: 5 mg/L				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	4	0.0424	0.118	0.2	0.33
CSM_BH04	4	0.33	0.436	0.3	0.44
CSM_BH06	4	0.276	**0.374**	0.21	0.28
CSM_BH08	4	**0.252**	0.33	0.32	0.37
CSM_BH09S	3	0.932	**1.058**	0.64	0.79
CSM_BH10S	4	0.542	**0.592**	0.43	0.51
GASW_BH10	4	**0.162**	0.174	0.1696	0.384
GASW_BH11	4	**0.176**	0.23	0.2	0.238
GASW_BH23	4	0.176	0.284	0.0408	0.318
GASW_BH25A	4	**0.0096**	0.264	0.1816	0.3064
SRT_BH047	4	0.0106	**0.2258**	0.0005	0.0084
SRT_BH052	4	**0.0005**	0.0023	0.0144	0.0318
SRT_BH059	1	0.0005	0.0005	0.0005	0.0005

Nickel (Filtered)					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: 0.007 mg/L				
	Off-site health: 0.2 mg/L				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	**0.0032**	0.0078	0.006	0.012
CSM_BH04	10	0.0132	0.0282	0.01	0.029
CSM_BH06	6	**0.01**	0.017	0.0122	0.02
CSM_BH08	11	0.005	**0.024**	0.0042	0.0124
CSM_BH09S	3	0.0122	**0.02**	0.006	0.009
CSM_BH10S	8	0.002	0.0142	0.002	0.002
GASW_BH10	6	**0.015**	0.034	0.0184	0.0424
GASW_BH11	6	0.003	**0.017**	0.002	0.002
GASW_BH23	6	**0.001**	0.002	0.0014	0.0032
GASW_BH25A	6	**0.0005**	**0.011**	0.0011	0.0026
SRT_BH047	6	0.003	**0.013**	0.002	0.0048
SRT_BH052	6	0.0005	0.002	0.004	0.008
SRT_BH059	1	0.006	0.006	0.0005	0.007

Zinc (Filtered)					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: 0.015 mg/L				
	Off-site health: N/A				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	0.0126	**0.021**	0.007	0.011
CSM_BH04	10	0.0216	0.0746	0.0025	0.1
CSM_BH06	6	0.041	**0.085**	0.041	0.0732
CSM_BH08	11	0.024	**0.21**	0.0144	0.0382
CSM_BH09S	3	0.0694	**0.13**	0.036	0.048
CSM_BH10S	8	**0.0039**	**0.1478**	0.006	0.011
GASW_BH10	6	0.016	**0.035**	0.0025	0.0206
GASW_BH11	6	0.053	0.17	0.0142	0.022
GASW_BH23	6	0.01	0.19	0.0025	0.331
GASW_BH25A	6	0.017	**0.072**	0.0025	0.0025
SRT_BH047	6	0.019	**0.11**	0.0066	0.0374
SRT_BH052	6	**0.0025**	0.027	0.006	0.086
SRT_BH059	1	**0.011**	0.011	0.0025	0.054

Benzene					
Adopted guideline:	**On-site health (vapour intrusion): 5000 µg/L**				
	Off-site ecological: 500 µg/L				
	Off-site health: 10 µg/L				
	Current period (ug/L)			Monitoring period Baseline (ug/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	7	0.5	0.5	0.5	0.5
CSM_BH04	10	0.5	0.5	0.5	0.5
CSM_BH06	6	0.5	0.5	0.5	0.5
CSM_BH08	11	0.5	0.5	0.5	0.5
CSM_BH09S	3	0.5	0.5	0.5	0.5
CSM_BH10S	8	0.5	0.5	0.5	0.5
GASW_BH10	6	0.5	0.5	0.5	2
GASW_BH11	6	0.5	0.5	0.5	0.5
GASW_BH23	6	**45**	850	1654	1900
GASW_BH25A	6	**10**	1300	8160	15180
SRT_BH047	6	0.5	0.5	0.5	0.5
SRT_BH052	6	0.5	0.5	0.5	0.5
SRT_BH059	1	0.5	0.5	0.5	0.5

TRH F1					
Adopted guideline:	**On-site health (vapour intrusion): 6000 µg/L**				
	Off-site ecological: n/a				
	Off-site health: n/a				
	Current period (ug/L)			Monitoring period Baseline (ug/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	7	10	10	10	10
CSM_BH04	10	10	10	10	10
CSM_BH06	6	10	10	10	10
CSM_BH08	11	10	10	10	10
CSM_BH09S	3	10	10	10	10
CSM_BH10S	8	10	10	10	10
GASW_BH10	6	10	10	10	22
GASW_BH11	6	10	10	10	10
GASW_BH23	6	**10**	50	100	1720
GASW_BH25A	6	**20**	460	1244	3884
SRT_BH047	6	10	10	10	10
SRT_BH052	6	10	10	10	10
SRT_BH059	1	10	10	10	10

TRH F2					
Adopted guideline:	**On-site health (vapour intrusion): Non limiting**				
	Off-site ecological: n/a				
	Off-site health: n/a				
	Current period (ug/L)			Monitoring period Baseline (ug/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	7	25	25	25	25
CSM_BH04	10	25	50	25	25
CSM_BH06	6	25	25	25	25
CSM_BH08	11	25	25	25	25
CSM_BH09S	3	25	25	25	50
CSM_BH10S	8	25	50	25	25
GASW_BH10	6	**25**	90	40	304
GASW_BH11	6	110	250	148	344
GASW_BH23	6	25	160	312	372
GASW_BH25A	6	**80**	470	328	1372
SRT_BH047	6	25	25	25	25
SRT_BH052	6	25	25	25	25
SRT_BH059	1	25	25	25	25

TDS					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: N/A				
	Off-site health: N/A				
	Current period (mg/L)			Monitoring period Baseline (mg/L)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	**280**	490	434	562
CSM_BH04	6	**220**	**320**	248	318
CSM_BH06	6	**410**	510	470	600
CSM_BH08	6	**260**	300	274	364
CSM_BH09S	3	**316**	370	390	460
CSM_BH10S	6	**110**	170	148	246
GASW_BH10	6	650	820	600	956
GASW_BH11	6	190	**270**	186	218
GASW_BH23	6	**320**	610	670	712
GASW_BH25A	6	**180**	390	400	703
SRT_BH047	6	**190**	260	262	360
SRT_BH052	6	**180**	250	246	282
SRT_BH059	2	**232**	238	234	270

pH (Lab)					
Adopted guideline:	**On-site health: N/A**				
	Off-site ecological: N/A				
	Off-site health: N/A				
	Current period (pH units)			Monitoring period Baseline (pH units)	
Site ID	N*	20th %ile	80th %ile	20th %ile	80th %ile
CSM_BH02	6	**7.1**	7.6	7.8	8.1
CSM_BH04	6	**6.0**	7.1	6.7	7.5
CSM_BH06	6	**6.4**	6.6	7.1	8.0
CSM_BH08	6	**6.1**	7.2	7.2	7.5
CSM_BH09S	3	**6.3**	6.4	6.6	6.9
CSM_BH10S	6	**5.6**	6.2	6.1	6.6
GASW_BH10	6	**6.9**	7.7	7.3	7.7
GASW_BH11	6	6.6	**7.4**	6.3	6.5
GASW_BH23	6	**7.2**	**8.0**	7.5	7.8
GASW_BH25A	6	**7.4**	7.8	7.5	8.1
SRT_BH047	6	**6.7**	7.4	7.7	8.1
SRT_BH052	6	**6.7**	7.1	7.7	7.9
SRT_BH059	2	**7.7**	7.8	7.8	8.1

Cyanide

Concentrations of cyanide were reported above the adopted ecological criteria in all monitoring wells primarily until December 2019 when trace analysis was introduced, and the laboratory limit of reporting was reduced from 0.005 mg/L to 0.004 mg/L. There are no concentrations above the adopted human health recreational/direct contact criteria. There is no apparent trend of increasing cyanide concentrations in the data set.

Concentrations of cyanide in the gasworks waste wells (GASW_BH23 and GASW_BH25A) are elevated relative to remaining wells and consistently above the detection limit. This is considered reflective of gasworks waste impact rather than construction related impacts. Exceedances of the ecological criterion were also reported in deep well CSM_BH02 during January 2021 sampling event. Cyanide concentrations do not appear to show increasing trends, but rather a high variability. Ongoing monitoring will inform the range in variations that can be expected for wells screened in and around the former gasworks.

Ammonia

Ammonia concentrations have increased during this period compared to baseline in eight of the monitoring wells. The current ammonia concentrations are lower than the adopted ecological screening criterion and therefore these increases should continue to be assessed in the next monitoring period. This increase may have been attributed to the excavation of the MBW and changes to the groundwater regime.

Metals

Concentrations of copper and zinc appear has increased during this monitoring period compared to the baseline data. However, the levels are fluctuating between events and could be more indicative of older pockets of groundwater flowing through the wells and lowering the pH of the water and increasing metal solubility.

Nickel and manganese have some minor exceedances of the 80th percentiles when compared to the baseline and are probably attributed to natural variations in the groundwater.

Benzene, TRH F1, TRH F2

Benzene, TRH F1 and TRH F2 have no exceedances of the baseline 80th percentiles and therefore there has been no change due to the construction works.

TDS

Total dissolved solids have been relatively stable during this monitoring period when compared to baseline. There has been a slight decrease of TDS concentrations in the majority of the monitoring wells.

pH (Lab)

The pH levels have remained consistent during this monitoring period. When compared to the baseline there has been a slight reduction in the pH values in all the wells except for GASW_BH11.

A lowering of the pH (more acidic) can encourage the solubility of heavy metals and may explain the fluctuations in metal concentrations.

5.5.3 Aggressivity

Concentrations of sulfate, chloride and pH have been compared against the adopted aggressivity criteria and displayed in **Table B6** and **Table B7, Appendix B**. The results have remained mostly consistent and suggest that existing groundwater may present a non-aggressive to moderate risk to concrete structures intersecting groundwater. However due to the low pH values in groundwater at off-site shallow well CSM_BH10S, as measured in the October and November 2020 monitoring events, there is potential for a moderate to severe risk to concrete structures above and below groundwater at this location. The reported groundwater quality is expected to be non-aggressive to steel piles with the exception at CSM_BH10S, where groundwater presents a non-aggressive to mild risk to steel structures.

5.5.4 Precipitation (Formation of Ochre)

Ferrous iron and manganese were analysed in groundwater samples and results are included in **Table B2**, **Appendix B.**

Ferrous iron concentrations ranged from below the laboratory reporting limits (0.05 mg /L) to a maximum concentration of 19 mg/L at GASW_BH10. Comparison of the current and previous results against the criteria outlined in **Section 3.6**, suggests that there is a negligible to high potential for ochre formation. The results have fluctuated throughout the monitoring period.

Manganese concentrations ranged from less than the laboratory reporting limit (0.005 mg/L) to 7.4 mg/L at CSM_BH04.

5.5.5 Summary of statistical analysis

Overall, there has been no major changes in the COPC concentrations due to construction. However, ammonia levels have increased from the baseline during this monitoring period and should be re-assessed within the next monitoring period to assess if there have been further increases.

6 Quality assurance and quality control assessment results

6.1 Field program

As part of the AGJV QA/QC program, one intra-laboratory duplicate and one inter-laboratory duplicate sample was analysed during each monitoring event. Duplicate samples were analysed for heavy metals, TRH, BTEXN and PAH. It is noted that for some results, reported concentrations were below the laboratory limit of reporting and as a result, it was not possible to calculate relative percentage difference (RPD's) for these samples. For analytes with detected concentrations, RPDs were within the acceptable range, with the exception of exceedances shown in **Table B8, Appendix B** and discussed below.

Elevated RPDs were reported between the following primary and duplicate samples:

- CSM_BH08 / QC01 in October 2020 for benzo(a)anthracene (56%), benzo(g,h,i)perylene (179%) and indeno(1,2,3-c,d)pyrene (167%).
- CSM_BH08 / QC02 in October 2020 for copper (179%), benzo(a)pyrene (64%), benzo(b+j)fluoranthene (91%), fluoranthene (55%), pyrene (55%) and PAH sum (72%).
- CSM_BH04 / QC02 in November 2020 for zinc (59%).
- CSM_BH10S / QC01 in November 2020 for copper (182%), nickel (147%) and zinc (185%).
- CSM_BH10S / QC02 in February 2021 for copper (191%), nickel (143%) and zinc (175%).

These elevated RPDs were likely attributed to the concentrations of analytes being close to the laboratory reporting limits (i.e. less than 10 times of the laboratory reporting limits), where a small difference in concentrations trigger an exaggerated RPD result.

One rinsate sample was collected during each monitoring round and analysed for heavy metals. Concentrations of all rinsate samples collected during this monitoring period were below the laboratory limit of reporting, indicating that cross contamination of samples did not occur.

One set of water trip blank and trip spikes were analysed as part of each monitoring event during the current monitoring period. The results of the trip spike have been reviewed by AGJV and were found to be within the acceptable criteria (70-130%), therefore it is considered unlikely that an unacceptable loss of volatile contaminants would have occurred. Concentrations of the trip blank samples were reported below the laboratory limit of reporting. It is therefore considered unlikely that cross-contamination of samples or loss of volatiles occurred during transportation to the laboratory.

The rinsate, trip spike and trip blank analytical results are summarised in **Table B9, Appendix B**. Laboratory analytical reports are included in **Appendix F**.

6.2 Laboratory program

Holding times

All analytes were extracted within the laboratory's required holding times for chemical analysis as presented on laboratory reports on **Appendix F**.

Laboratory program

The NATA certified laboratories used for this assessment (Eurofins Sydney and Australian Laboratory Services) undertook their own quality assurance and quality control procedures for sample analysis. AGJV has reviewed the internal laboratory control data provided within the laboratory reports, which are attached as **Appendix F**. It is noted comments have been provided by the laboratory where a failure result was reported in laboratory QA/QC procedures.

6.3 Discussion

Despite the elevated RPD of primary and duplicate samples for certain metals and PAH compounds, the results of the QA/QC program are considered to provide an acceptable degree of confidence in the analytical program completed. Overall, the analytical data set is considered to be valid and acceptable for assessing the contamination status of the site.

7 Findings, conclusions and recommendations

7.1 Findings and conclusions

In accordance with the objectives detailed in **Section 1.1** of this report, and based on the information contained within this monitoring program, the following findings are noted (subject to the limitations outlined in **Section 9**).

- Due to the destruction and replacement of monitoring wells as the construction progresses, the following variations in sampling locations are noted as compared to those listed in Table 7.3 of the latest CGWMP (LOR, August 2020):
- With the construction of the MBW a number of monitoring wells to the east and south have been destroyed.

The groundwater elevation data, as presented in **Section 5.3.5**, suggests there are two distinct aquifers at the site, located in the overlying unconsolidated materials (the shallow aquifer) and within the Hawkesbury Sandstone (the deep aquifer). This statement is supported by the following evidence:

- A difference greater than 5 m in groundwater elevations between the shallow and deeper aquifers.
- A difference in response to rainfall events between wells screened within the shallow and deep aquifers. Shallow wells displayed an immediate response to rainfall events, whereas deep wells displayed a delayed response.

Groundwater flow direction within the shallow aquifer system is toward the north-east. It appears this is generally consistent with the general fall in topography and towards harbour areas. Groundwater flow direction in the deeper aquifer appears to be to the north-east and towards harbour areas. The groundwater flow directions in the deep and shallow aquifer have been consistent throughout the monitoring program.

The groundwater elevation data also indicates that groundwater drawdown in the shallow aquifer at the boundary of the CSM project area are within the acceptable range specified in the project EIS and REMM (AGJV, 2020). Groundwater drawdown in the deep aquifer for the current monitoring period, however, indicates excessive drawdown of approximately 5 m influenced by dewatering activities associated with the MBW excavation. This drawdown may be out of the acceptable range specified in the project EIS and REMM (AGJV, 2020). Excessive drawdown in the deep aquifer is expected to recover following reduction or conclusion of dewatering activities.

The groundwater quality sampling results suggest the following:

- Concentrations of copper and zinc have an increasing trend during this monitoring period and have exceeded the baseline percentiles in groundwater at most monitoring wells. However, they are fluctuating and with increasing spikes which may be due to the lowering of pH as older groundwater is migrating with the drawdown of the groundwater at the MBW.
- Ammonia concentrations have increased during this monitoring period compared against the baseline. This may have been caused by the changes in the groundwater regime due to the construction works. However, the current levels are well below the ecological screening criterion adopted for this project.
- TRH (with silica gel cleanup) results were detected above the laboratory limit of reporting in groundwater samples across seven monitoring wells. These detections were low and are considered to be indicative of low level impact associated with the former gasworks. There were no exceedances when compared to the baseline 80th percentiles.

- Benzene, benzo(a)pyrene and toluene impacts, as well as manganese, reported above recreational criteria during the entire monitoring period (September 2018 to March 2021) may present a potential contact risk for on-site intrusive maintenance workers, although it is noted that the adopted criteria are conservative.
- Concentrations of benzene in GASW_BH23 exceeded human health criteria for commercial/industrial receptors via vapour intrusion pathway during the November 2020 event. Exceedances of this criteria have also been reported in GASW_BH23 and GASW_BH25A during previous monitoring events. AGJV understand that the vapour intrusion risk is managed by the project Construction Environmental Management Plan (CEMP). The vapour intrusion risk for the operations phase has been assessed in the Gasworks Quantitative Risk Assessment (SMCSWCSM-DJV-EW-00-MEM-GE-000045) and appropriate mitigation measures have been incorporated into the construction design.
- There is potential for a moderate to severe risk to concrete structures and mild risk to steel within the vicinity of off-site shallow monitoring well CSM_BH10S, however there is limited data available at this location and this well is not expected to be intercepted during construction. Groundwater was considered non-aggressive to steel structures and moderate to non-aggressive to concrete structures in all other monitoring wells, including those throughout the area of the former gasworks. A severe to very severe risk to steel structures has previously been identified in GASW_BH7, however no data was available for GASW_BH7 throughout this monitoring period as it has remained dry since April 2020.
- There is a negligible to high potential for ochre formation throughout the site, particularly within the vicinity of the former gasworks holder, given ferrous iron concentrations were reported at more than 10 mg/L at GASW_BH7 during previous monitoring period and at GASW_BH10 during past and current monitoring periods.
- There does not appear to be an ongoing emergence of groundwater quality impacts associated with the construction works. This is understandable given that groundwater flow is directed into excavation, where it is being collected and treated.

7.2 Recommendations

Based on the findings of the current groundwater monitoring period and consideration of findings from the previous monitoring periods, AGJV recommend:

- Continued monitoring and factual reporting on a six-monthly basis in accordance with the CGWMP.
- Additional wells should be installed to replace destroyed monitoring wells SRT_BH059, CSM_BH09S and CSM_BH11S. This will aid in monitoring the impact of construction on the shallow groundwater aquifer in the vicinity of Platforms 18/19 and 22. It is noted that additional well CSM_BH12S was drilled following the March 2021 monitoring event to replace CSM_BH09S in the Sydney Yard. This well will be included in future sampling events.
- Ammonia concentrations should be reassessed next monitoring period to ascertain if there further increases in concentrations or just fluctuation through changes to the groundwater regime.
- Groundwater drawdown in the deep aquifer for the current monitoring period indicates excessive drawdown of approximately 5 m influenced by dewatering activities associated with the Metro Box excavation. Excessive drawdown in the deep aquifer is expected to recover following reduction or conclusion of dewatering activities. This data should be provided to the relevant AGJV groundwater movement specialist for further consideration as there is the potential to be outside the relevant drawdown criteria.
- The groundwater aggressivity results have been tabulated (**Table B6 and Table B7, Appendix B**) and should be provided to the relevant AGJV design specialist for further consideration.
- The groundwater monitoring results should be provided to the relevant specialist operator of the construction and operational water treatment plants for the treatment of groundwater.

- Shallow monitoring well SRT_BH050 should be surveyed for top of casing to enable inclusion into groundwater gauging graphs (as presented in Section **5.3.1**).
- To support the future validation works, ongoing characterisation of groundwater quality entering the treatment plant, particularly
    - pH
    - Cyanide
    - Metals including chromium, copper, lead, manganese, mercury, nickel and zinc.
    - Benzo (a) pyrene
    - Benzene

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9 Limitations

It is noted that AGJV does not rely on any data collected and reported by other consultants.

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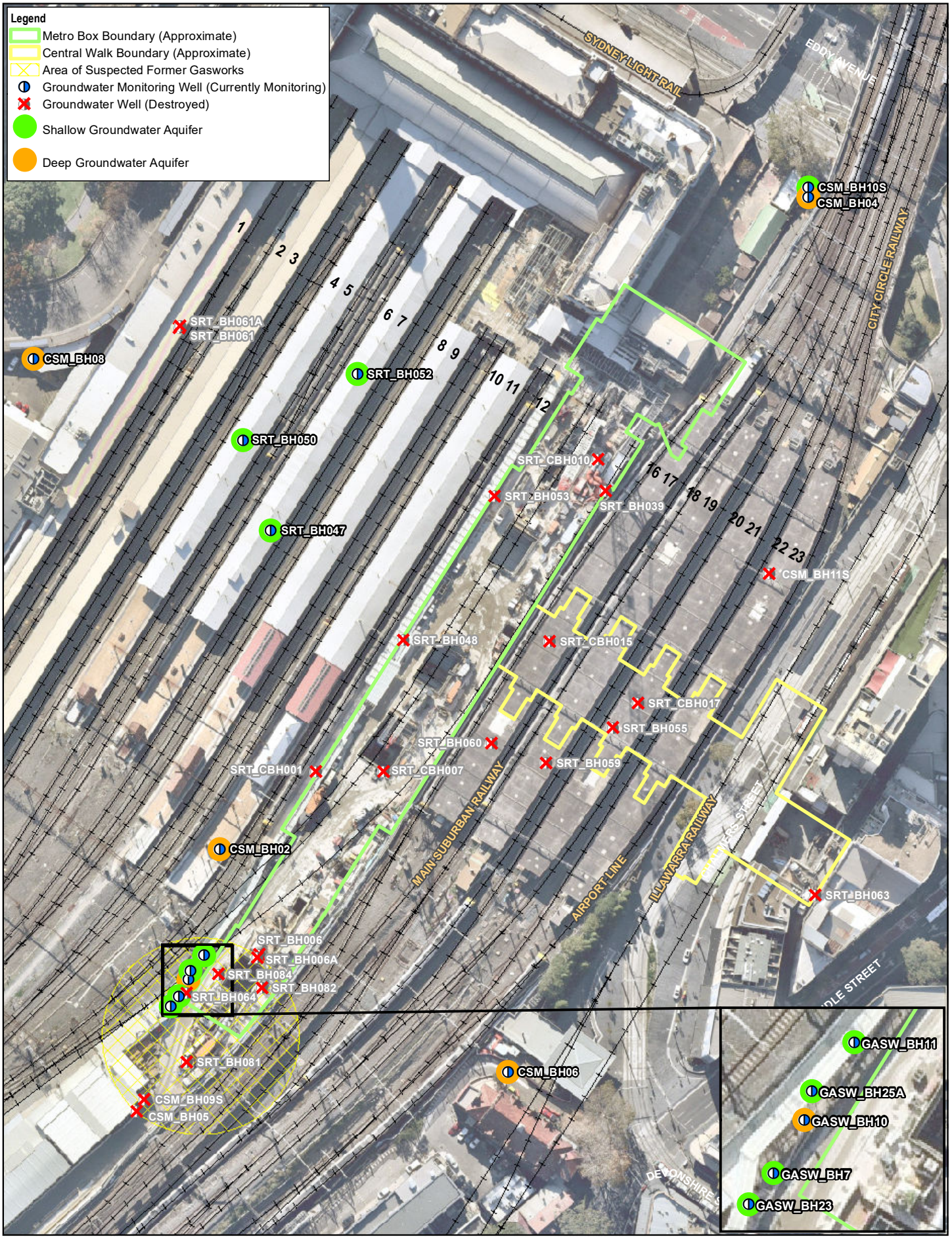
Appendices

Appendix A
Figures



Paper Size ISO A4

0 10 20 30 40

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

AGJV

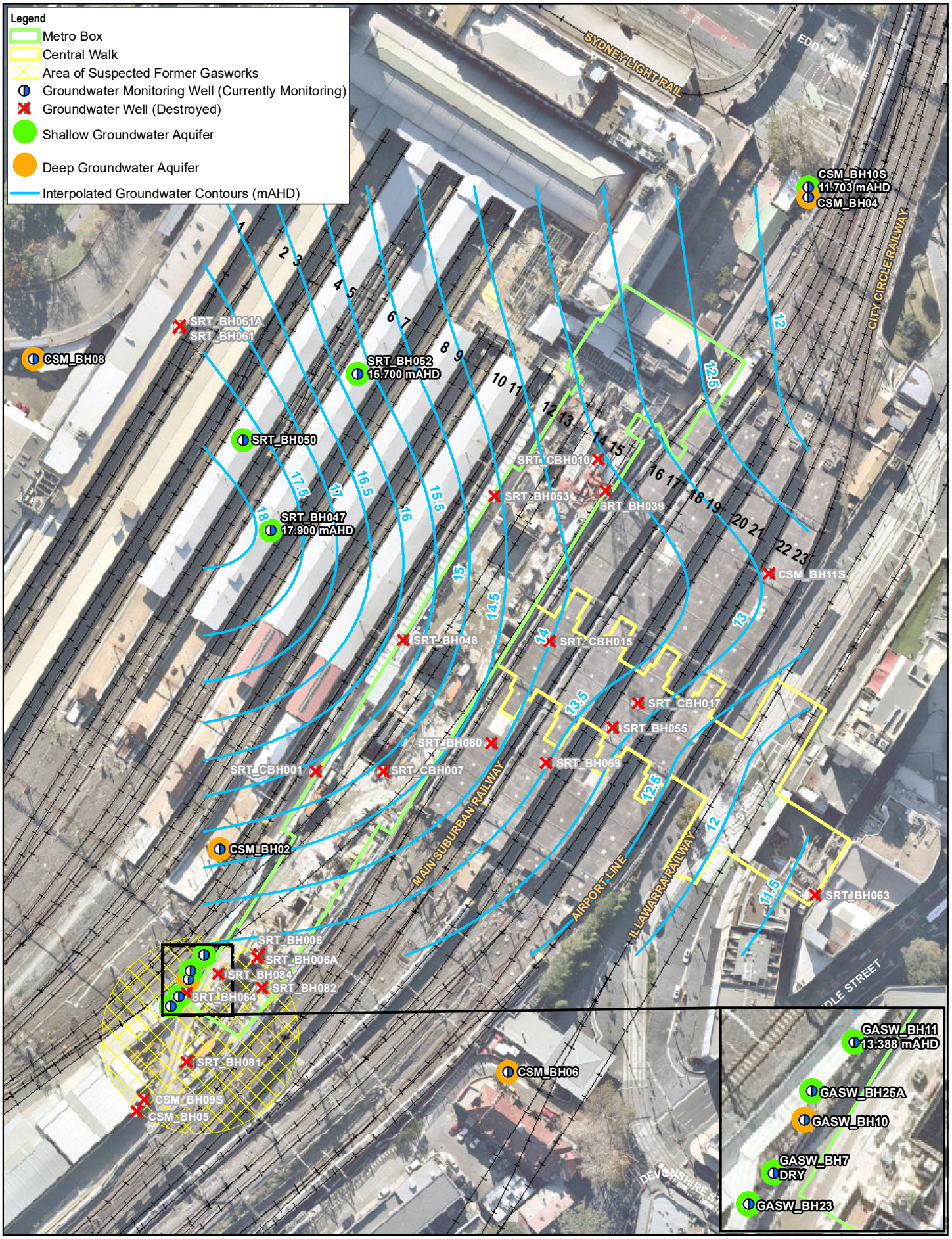
Laing O'Rourke
Central Station Main Works

Monitoring Well Locations
(March 2021)

Project No. 21-27234
Revision No. -
Date 09/04/2021

Figure 1

Data source: . Created by: tnham



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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

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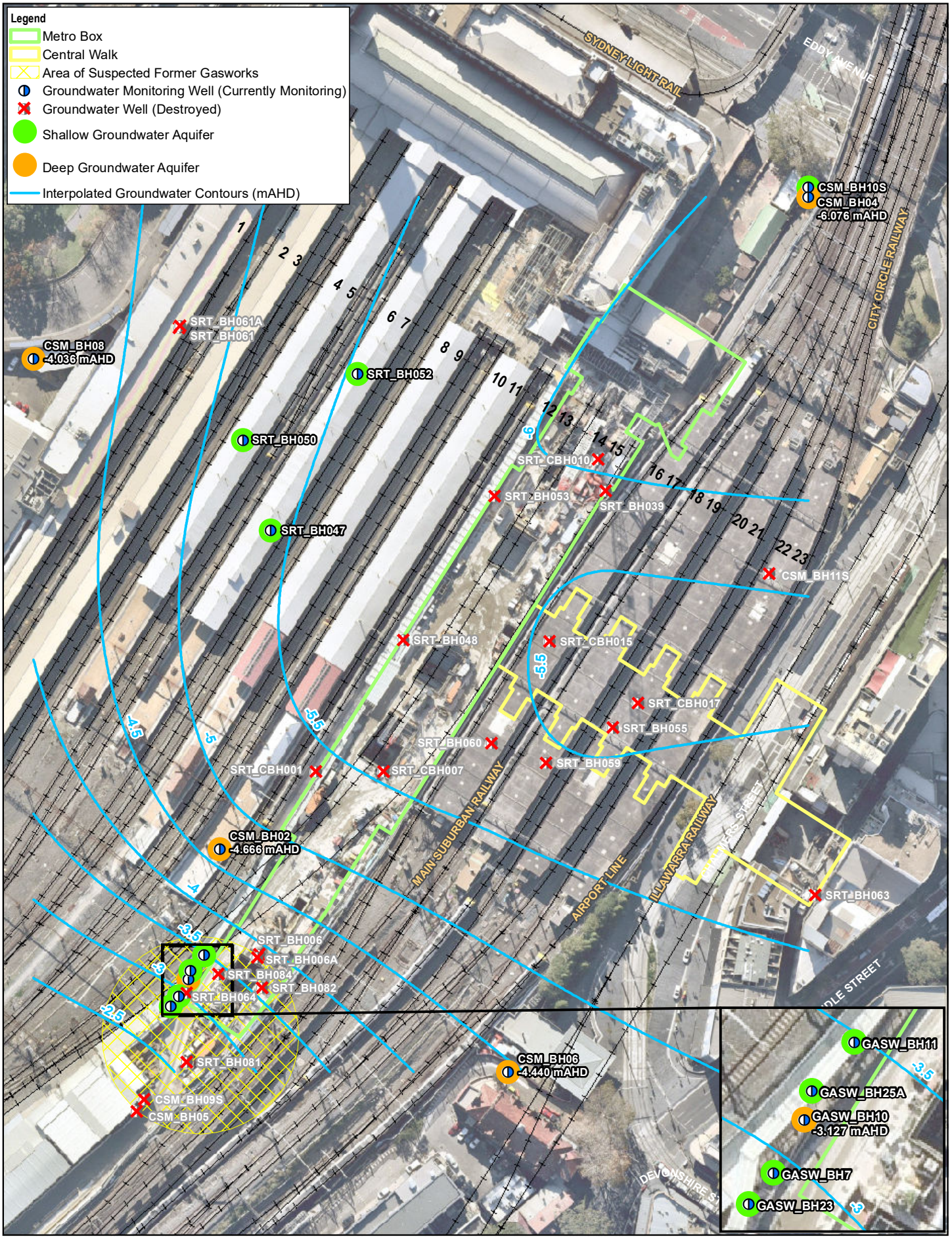
Laing O'Rourke
Central Station Main Works

Interpolated Groundwater Contours - March 2021 (Shallow Aquifer)

Project No. 21-27234
Revision No. -
Date 09/04/2021

Figure 2

Data source: . Created by: tnham



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Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

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Laing O'Rourke
Central Station Main Works

Interpolated Groundwater Contours - March 2021 (Deep Aquifer)

Project No. 21-27234
Revision No. -
Date 09/04/2021

Figure 3

Data source: . Created by: tnham

Appendix B
Tables

Appendix B

Table 1 - Summary of Monitoring Well Status During Monitoring Program (Sept 2018 to March 2021)

Well ID	Approx. Location	Targeted aquifer	Datalogger placed?	Event 1 Sept 2018	Event 2 Oct 2018	Event 3 Nov 2018	Event 4 Dec 2018	Event 5 Jan 2019	Event 6 Feb 2019	Event 7 April 2019	Event 8 May 2019	Event 9 June 2019	Event 10 July 2019	Event 11 Aug 2019
SRT_BH006	Sydney Yard	Deep		Not Found / Destroyed										
SRT_BH006A	Sydney Yard	Shallow		Not Found / Destroyed										
SRT_BH039	Track 15	Deep		Sampled	Sampled	Destroyed								
SRT_BH047	Platform 6/7	Shallow	Logger + Baro	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH048	Platform 12/13	Shallow		Sampled	Sampled	Sampled	Destroyed							
SRT_BH050	Platform 4/5	Shallow												
SRT_BH052	Platform 6/7	Shallow		Covered by Hoarding	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH053	Platform 12/13	Deep		Sampled	Sampled	Covered by Hoarding	Destroyed							
SRT_BH055	Platform 20/21	Shallow		Dry										
SRT_BH059	Platform 18/19	Shallow			Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH060	Platform 16/17	Shallow												
SRT_BH063	Offsite Randle Lane	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH064	Sydney Yard	Shallow		Sampled	Not Found / Destroyed									
SRT_BH081	Sydney Yard	Shallow			Not Found / Destroyed									
SRT_BH082	Sydney Yard	Shallow			Sampled	Sampled	Not Found / Destroyed							
SRT_BH084	Sydney Yard	Shallow		Not Found / Destroyed										
SRT_CBH001	Platform 12/13	Shallow		Sampled	Sampled	Sampled	Destroyed							
SRT_CBH007	Platform 14/15	Shallow		Sampled	Destroyed									
SRT_CBH015	Platform 16/17	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_CBH017	Platform 20/21	Shallow	Logger (removed Jan 2020)	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH02	Platform 10/11	Deep	Logger							Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH04	Eddy Ave Driveway	Deep	Logger							Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH05	Sydney Yard	Deep								Sampled	Sampled	Sampled	Sampled	Destroyed
CSM_BH06	Institute Drive	Deep	Logger							Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH08	Ambulance Ave	Deep								Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH09S	Sydney Yard	Shallow								Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH10S	Eddy Ave Driveway	Shallow	Logger (installed Jan 2020)							Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH11S	Platform 22	Shallow												
GASW_BH7	Sydney Yard Gasworks	Shallow										Sampled	Sampled	Sampled
GASW_BH10	Sydney Yard Gasworks	Deep										Sampled	Sampled	Sampled
GASW_BH11	Sydney Yard Gasworks	Shallow										Sampled	Sampled	Sampled
GASW_BH23	Sydney Yard Gasworks	Shallow												
GASW_BH25A	Sydney Yard Gasworks	Shallow												

	Well Sampled
	Not Sampled
	Not scheduled / available for sampling
	Grab sample taken

Appendix B

Table 1 - Summary of Monitoring Well Status During Monitoring Program (Sept 2018 to March 2021)

Well ID	Approx. Location	Targeted aquifer	Datalogger placed?	Event 12 Sept 2019	Round 13 Oct 2019	Round 14 Nov 2019	Round 15 Dec 2019	Round 16 Jan 2020	Round 17 Feb 2020	Round 18 Mar 2020	Round 19 Apr 2020	Round 20 May 2020	Round 21 Jun 2020	Round 22 Jul 2020
SRT_BH006	Sydney Yard	Deep												
SRT_BH006A	Sydney Yard	Shallow												
SRT_BH039	Track 15	Deep												
SRT_BH047	Platform 6/7	Shallow	Logger + Baro	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH048	Platform 12/13	Shallow												
SRT_BH050	Platform 4/5	Shallow							No Sample	Grab Sampled	Grab Sampled	DRY	Grab Sampled	Grab Sampled
SRT_BH052	Platform 6/7	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH053	Platform 12/13	Deep												
SRT_BH055	Platform 20/21	Shallow							Destroyed					
SRT_BH059	Platform 18/19	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Grab Sampled	Sampled
SRT_BH060	Platform 16/17	Shallow							No Sample	Grab Sampled	Grab Sampled	Destroyed		
SRT_BH063	Offsite Randle Lane	Shallow		No Access	No Access	No Access	No Access	No Access	Destroyed					
SRT_BH064	Sydney Yard	Shallow												
SRT_BH081	Sydney Yard	Shallow												
SRT_BH082	Sydney Yard	Shallow												
SRT_BH084	Sydney Yard	Shallow												
SRT_CBH001	Platform 12/13	Shallow												
SRT_CBH007	Platform 14/15	Shallow												
SRT_CBH015	Platform 16/17	Shallow		Sampled	Sampled	Sampled	Sampled	Destroyed						
SRT_CBH017	Platform 20/21	Shallow	Logger (removed Jan 2020)	Sampled	Sampled	Sampled	Sampled	Sampled	Destroyed					
CSM_BH02	Platform 10/11	Deep	Logger	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH04	Eddy Ave Driveway	Deep	Logger	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH05	Sydney Yard	Deep												
CSM_BH06	Institute Drive	Deep	Logger	Sampled	Sampled	Sampled	Sampled	No Access	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH08	Ambulance Ave	Deep		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH09S	Sydney Yard	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH10S	Eddy Ave Driveway	Shallow	Logger (installed Jan 2020)	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH11S	Platform 22	Shallow												
GASW_BH7	Sydney Yard Gasworks	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	DRY	DRY	DRY	DRY
GASW_BH10	Sydney Yard Gasworks	Deep		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
GASW_BH11	Sydney Yard Gasworks	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
GASW_BH23	Sydney Yard Gasworks	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Grab Sampled	Grab Sampled	Grab Sampled
GASW_BH25A	Sydney Yard Gasworks	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled

	Well Sampled
	Not Sampled
	Not scheduled / available for sampling
	Grab sample taken

Appendix B

Table 1 - Summary of Monitoring Well Status During Monitoring Program (Sept 2018 to March 2021)

Well ID	Approx. Location	Targeted aquifer	Datalogger placed?	Round 23 Aug 2020	Round 24 Sept 2020	Round 25 Oct 2020	Round 26 Nov 2020	Round 27 Dec 2020	Round 28 Jan 2021	Round 29 Feb 2021	Round 30 Mar 2021
SRT_BH006	Sydney Yard	Deep									
SRT_BH006A	Sydney Yard	Shallow									
SRT_BH039	Track 15	Deep									
SRT_BH047	Platform 6/7	Shallow	Logger + Baro	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH048	Platform 12/13	Shallow									
SRT_BH050	Platform 4/5	Shallow		Grab Sampled	DRY	DRY	Grab Sampled	Grab Sampled	DRY	Grab Sampled	Grab Sampled
SRT_BH052	Platform 6/7	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
SRT_BH053	Platform 12/13	Deep									
SRT_BH055	Platform 20/21	Shallow									
SRT_BH059	Platform 18/19	Shallow		Sampled	Sampled	Grab Sampled	Grab Sampled	No Access	Destroyed		
SRT_BH060	Platform 16/17	Shallow									
SRT_BH063	Offsite Randle Lane	Shallow									
SRT_BH064	Sydney Yard	Shallow									
SRT_BH081	Sydney Yard	Shallow									
SRT_BH082	Sydney Yard	Shallow									
SRT_BH084	Sydney Yard	Shallow									
SRT_CBH001	Platform 12/13	Shallow									
SRT_CBH007	Platform 14/15	Shallow									
SRT_CBH015	Platform 16/17	Shallow									
SRT_CBH017	Platform 20/21	Shallow	Logger (removed Jan 2020)								
CSM_BH02	Platform 10/11	Deep	Logger	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH04	Eddy Ave Driveway	Deep	Logger	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH05	Sydney Yard	Deep									
CSM_BH06	Institute Drive	Deep	Logger	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH08	Ambulance Ave	Deep		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH09S	Sydney Yard	Shallow		Sampled	Sampled	Sampled	Sampled	Sampled	Destroyed		
CSM_BH10S	Eddy Ave Driveway	Shallow	Logger (installed Jan 2020)	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled
CSM_BH11S	Platform 22	Shallow			DRY	DRY	DRY	DRY	DRY	DRY	Destroyed
GASW_BH7	Sydney Yard Gasworks	Shallow		DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
GASW_BH10	Sydney Yard Gasworks	Deep		Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Grab Sampled	Grab Sampled
GASW_BH11	Sydney Yard Gasworks	Shallow		Sampled	Sampled	Grab Sampled	Grab Sampled	Grab Sampled	Grab Sampled	Grab Sampled	Grab Sampled
GASW_BH23	Sydney Yard Gasworks	Shallow		Grab Sampled	Grab Sampled	Sampled	Grab Sampled	Grab Sampled	Sampled	Sampled	Sampled
GASW_BH25A	Sydney Yard Gasworks	Shallow		Sampled	Grab Sampled	Sampled	Sampled	Sampled	Sampled	Sampled	Sampled

	Well Sampled
	Not Sampled
	Not scheduled / available for sampling
	Grab sample taken

					Inorganics			Cyanide		Acidity & Alkalinity					Major Ions														Nutrients		Metals															Iron speciation
					pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
					pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)									0.8															5000	5000			112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																									
2-4m																																									
4-8m																																									
>8m																																									
NEPM 2013 Table 1C GILs, Marine Waters									0.004																			0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																						
CSM_BH02	CSM_BH02	16/04/2019	Normal	651825	-	-	-	-	<0.005	<10	110	-	-	-	9.2	-	11	-	2.7	-	61	-	51	44	-	-	-	-	0.05	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.2	<0.0001	0.012	0.006	1.6
CSM_BH02	CSM_BH02	14/05/2019	Normal	656080	8.5	410	3300	-	0.005	11	240	-	-	-	43	-	26	-	3.2	-	64	-	68	38	-	-	-	-	0.12	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.55	<0.0001	0.012	0.01	1.4
CSM_BH02	CSM_BH02	6/06/2019	Normal	660130	7.8	470	970	-	<0.005	<10	290	-	-	-	48	-	36	-	6.6	-	110	-	150	35	-	-	-	-	0.04	<0.02	0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.33	<0.0001	0.009	0.016	0.9
CSM_BH02	CSM_BH02	30/07/2019	Normal	669059	8	550	42,000	-	0.092	<10	350	-	-	-	50	-	43	-	5.8	-	120	-	500	24	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.13	<0.0001	0.004	0.007	<0.05
CSM_BH02	CSM_BH02	29/08/2019	Normal	674722	7.9	610	6400	-	<0.005	<10	320	-	-	-	49	-	40	-	5.7	-	120	-	190	25	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.24	<0.0001	0.006	0.007	<0.05
CSM_BH02	CSM_BH02	26/09/2019	Normal	679636	7.8	440	3100	-	<0.005	<10	310	-	-	-	44	-	37	-	4.8	-	110	-	160	31	-	-	-	-	0.03	0.06	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.26	<0.0001	0.015	0.011	1.2
CSM_BH02	CSM_BH02	17/10/2019	Normal	683453	7.9	530	4400	-	<0.005	<10	290	-	-	-	48	-	39	-	5.7	-	120	-	500	28	-	-	-	-	0.06	0.04	0.002	<0.0002	<0.001	0.01	-	<0.001	-	0.33	<0.0001	0.028	0.048	1.2
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	7.9	620	4600	-	<0.005	<10	330	-	-	-	50	-	42	-	5.5	-	120	-	520	29	-	-	-	-	0.02	0.03	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.29	<0.0001	0.025	0.01	1.8
CSM_BH02	CSM_BH02	17/12/2019	Normal	694466	8.1	290	2800	-	<0.004	<10	280	-	-	-	33	-	30	-	5	-	78	-	150	34	-	-	-	-	0.02	0.16	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.19	<0.0001	0.009	0.012	0.68
CSM_BH02	CSM_BH02	21/01/2020	Normal	698379	4.8	560	2200	-	<0.004	<10	320	-	-	-	41	-	37	-	11	-	120	-	180	28	-	-	-	-	0.02	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.26	<0.0001	0.027	0.01	1.3
CSM_BH02	CSM_BH02	25/02/2020	Normal	704673	8.3	540	1600	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.12	<0.0001	0.021	0.008	0.1
CSM_BH02	CSM_BH02	25/02/2020	Normal	706746	-	-	-	-	-	<10	290	-	-	-	49	-	37	-	10	-	100	-	190	34	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/03/2020	Normal	708508	7	870	1800	-	0.008	<10	310	-	-	-	43	-	39	-	7.2	-	110	-	150	32	-	-	-	-	0.05	0.04	<0.001	<0.0002	<0.001	0.009	-	<0.001	-	0.091	<0.0001	0.009	0.041	<0.5
CSM_BH02	CSM_BH02	14/04/2020	Normal	714027	6.6	490	2000	-	<0.004	<10	380	-	-	-	63	-	51	-	8.6	-	150	-	190	28	-	-	-	-	0.05	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.09	<0.0001	0.004	0.015	<0.05
CSM_BH02	CSM_BH02	19/05/2020	Normal	720682	7.5	660	1600	-	<0.004	<10	410	-	-	-	44	-	38	-	5.1	-	110	-	150	29	-	-	-	-	0.03	0.09	0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.63	<0.0001	0.014	0.035	1.4
CSM_BH02	CSM_BH02	18/06/2020	Normal	726825	7.4	470	1000	-	0.004	<10	390	-	-	-	<5	-	<5	-	<5	-	11	-	160	29	-	-	-	-	0.03	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.35	<0.0001	0.023	0.008	3.9
QC02	CSM_BH02	18/06/2020	Field_D	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.002	<0.0002	<0.001	0.003	-	<0.001	-	-	<0.0001	0.025	0.032	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	15/07/2020	Normal	732590	6.4	1000	1600	-	0.02	<10	270	<20	270	-	38	-	37	-	7.4	-	110	-	160	32	-	-	-	-	<0.01	-	0.003	<0.0002	<0.001	<0.001	-	<0.001	-	0.3	<0.0001	0.027	0.016	3.6
CSM_BH02	CSM_BH02	18/08/2020	Normal	738860	6.9	350	980	-	<0.004	<10	240	-	-	-	26	-	19	-	<5	-	53	-	47	37	-	-	-	-	<0.01	0.03	<0.001	<0.0002	<0.001	0.006	-	0.002	-	0.13	<0.0001	0.013	0.046	0.09
CSM_BH02	CSM_BH02	14/09/2020	Normal	744463	7.9	420	1100	-	<0.004	<10	240	<20	240	200	35	-	28	-	<5	-	92	-	85	34	-	-	-	-	0.05	-	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.49	<0.0001	0.019	0.014	2.6
QC02	CSM_BH02	14/09/2020	Field_D	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.002	<0.0002	<0.001	0.002	-	<0.001	-	-	<0.0001	0.02	0.014	-
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	7.1	300	2800	-	<0.004	<10	240	<20	240	230	41	-	32	-	7.1	-	86	-	110	46	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.04	<0.0001	0.007	0.024	<0.5
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	7.8	490	1000	-	<0.004	<10	260	-	-	180	28	-	28	-	11	-	98	-	120	31	-	-	-	-	<0.01	0.08	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.044	<0.0001	0.004	0.022	<0.5
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	6.6	190	980	-	<0.004	<10	140	-	-	-	12	-	12	-	4.1	-	56	-	44	38	-	-	-	-	<0.01	0.05	<0.001	<0.0002	<0.001	<0.001	0.36	-	-	<0.0001	0.009	0.015	<0.5
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	7.1	330	740	-	0.01	<10	160	<20	160	240	36	-	36	-	<5	-	62	-	51	45	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.13	<0.0001	0.003	0.015	<0.05
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	0.002	<0.001	-	<0.001	-	-	<0.0001	0.003	0.011	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	7.2	560	12,000	-	<0.004	<10	330	<20	330	240	35	-	38	-	6.5	-	100	-	180	27	-	-	-	-	0.04	-	<0.001	<0.0002	<0.001	0.012	25	<0.001	0.45	-	<0.0001	0.007	0.012	<0.5
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	7.6	280	5500	-	<0.004	<10	2000	<20	2000	140	23	-	20	-	3	-	69	-	83	36	-	-	-	-	0.18	-	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.11	0.0001	0.008	0.017	<0.05
CSM_BH04	CSM_BH04	16/04/2019	Normal	651825	-	-	-	-	<0.005	<10	91	-	-	-	5.8	-	11	-	2.5	-	69	-	65	55	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.36	<0.0001	0.01	<0.005	11
CSM_BH04	CSM_BH04	13/05/2019	Normal	656080	7.3	260	3700	-	<0.005	<10	85	-	-	-	5.2	-	9.5	-	2.4	-	66	-	56	56	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	0.3	<0.0001	0.029	0.29	0.12
CSM_BH04	CSM_BH04	11/06/2019	Normal	660130	6.7	200	2700	-	<0.005	<10	86	-	-	-	4.5	-	11	-	2.4	-	69	-	63	56	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.44	<0.0001	0.023	0.051	7.7
CSM_BH04	CSM_BH04	30/07/2019	Normal	669059	7	280	6500	-	0.035	<10	100	-	-	-	9	-	15	-	3	-	79	-	110	38	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.42	<0.0001	0.018	0.025	1
CSM_BH04	CSM_BH04	29/08/2019	Normal	674722	6.5	290	630	-	<0.005	<10	120	-	-	-	6.3	-	12	-	2.2	-	72	-	55	45	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.45	<0.0001	0.037	0.1	2
CSM_BH04	CSM_BH04	26/09/2019	Normal	679636	8.5	430	260	-	<0.005	16	300	-	-	-	6.5	-	11	-	3.1	-	150	-	74	33	-	-	-	-	0.06	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.18	<0.0001	0.002	<0.005	0.1
CSM_BH04	CSM_BH04	17/10/2019	Normal	683453	9.6	570	290	-	<0.005	150	240	-	-	-	5.9	-	8.8	-	4.8	-	200	-	110	34	-	-	-	-	0.22	0.15	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.048	<0.0001	0.001	<0.005	0.08
QC02	CSM_BH04	17/10/2019	Field_D	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.001	<0.005	-
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	8	410	350	-	<0.005	<10	270	-	-	-	6.9	-	12	-	4.2	-	140	-	71	39	-	-	-	-	0.09	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.33	<0.0001	0.01	<0.005	2.8
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.01	<0.005	-
CSM_BH04	CSM_BH04	17/12/2019	Normal	694466	7	140	1000	-	<0.004	<10	120	-	-	-	8.5	-	14	-	3.1	-	62	-	89	37	-	-	-	-	0.02	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.32	<0.0001	0.021	0.014	9.1
CSM_BH04	CSM_BH04	21/01/2020	Normal	698379	6.3	310	880	-	<0.004	<10	100	-	-	-	180	-	190	-	170	-	230	-	95	44	-	-	-	-	0.02	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.37	<0.0001	0.007	0.041	8.2
QC02	CSM_BH04	21/01/2020	Field_D	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.008	0.041	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	704673	7.3	310	2500	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.34	<0.0001	0.025	0.021	9.4
CSM_BH04	CSM_BH04	25/02/2020	Normal	706746	-	-	-	-	-	<10	110	-	-	-	8.2	-	15	-	13	-	71	-	140	38	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	25/02/2020	Field_D	704673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.026	0.021	-
CSM_BH04	CSM_BH04	18/03/2020	Normal	708508	6.3	210	1300	-	0.006	<10	100	-	-	-	10	-	17	-	5.5	-	65	-	90	38	-	-	-	-	0.11	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.33	<0.0001	0.007	0.026	17
CSM_BH04	CSM_BH04	14/04/2020	Normal	714027	5.9	260	950	-	<0.004	<10	110	-	-	-	9.5	-	18	-	5	-	92	-	140	34	-	-	-	-	0.11	2.6	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.35	<0.0001	0.006	0.018	7.8
CSM_BH04	CSM_BH04	20/05/2020	Normal	720682	6.3	260	2000	-	<0.004	<10	130	-	-	-	8.8	-	16	-	<5	-	77	-	76	35	-	-	-	-	<0.01	<0.02	<0.01	<0.002	<0.01	<0.01	-	<0.01	-	1.7	<0.001	0.026	<0.05	8.2
CSM_BH04	CSM_BH04	18/06/2020	Normal	726825	6.8	310	450	-	<0.004	<10	200	-	-	-	<5	-	<5	-	<5	-	8.7	-	77	37	-	-	-	-	0.04	<0.02	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.4	0.0001	0.033	0.085	5.2
CSM_BH04	CSM_BH04	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	15/07/2020	Normal	732590	6.4	430	420	-	0.005	<10	110	<20	110	-	9.1	-	16	-	5.1	-	69	-	58	46	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.43	<0.0001	0.038	0.018	1.6
CSM_BH04	CSM_BH04	17/08/2020	Normal	738860	6.5	260	940	-	<0.004	<10	110	-	-	-	6.3	-	13	-	<5	-	51	-	71	40	-	-	-	-	<0.01	0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.51	<0.0001	0.048	0.039	3
QC01	CSM_BH04	17/08/2020	Interlab_D	ES2028968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.043	0.035	-
CSM_BH04	CSM_BH04	14/09/2020	Normal	744463	6.7	260	330	-	<0.004	<10	95	<20	95	73	7.4	-	13	-	<5	-	70	-	73	34	-	-	-	-	0.13	-	<0.001	<0.0002	<0.001	0.083	-	0.003	-	0.44	<0.0001	0.032	0.11	5.8
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	6.4	220	1500	-	<0.004	<10	88	<20	88	120	14	-	21	-	6.6	-	69	-	120	50	-	-	-	-	0.07	-	<0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.33	<0.0001	0.037	0.093	5.6
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	6.8	250	250	-	<0.004	<10	90	-	-	91	11	-	15	-	<5	-	69	-	84	25	-	-	-	-	<0.01	<0.02	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.33	<0.0001	0.01	0.097	7.4
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	-	<0.0001	0.01	0.053	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	6	330	17,000	-	<0.004	<10	99	-	-	-	58	-	66	-	16	-	58	-	110	29	-	-	-	-	0.13	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	7.4	-	<0.0001	0.046	0.07	8.2
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	7.1	320	190	-	0.004	<10	110	<20	110	85	8.2	-	16	-	<5	-	85	-	110	53	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.46	<0.0001	0.019	0.034	4
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.014	0.028	-
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	5.7	190	340	-	<0.004	<10	100	<20	100	68	5.3	-	13	-	4	-	61	-	83	44	-	-	-	-	0.02	-	<0.001	<0.0002	0.001	0.005	24	<0.001	0.57	-	<0.0001	0.024	0.016	3.1
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	-	<0.0001	0.023	0.013	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	7.3	230	370	-	<0.004	<10	1900	<20	1900	68	6.8	-	12	-	2.6	-	70	-	69	56	-	-	-	-	0.03	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.42	<0.0001	0.026	0.027	3.1
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.023	0.023	-
CSM_BH05	CSM_BH05	17/04/2019	Normal	651825	-	-	-	-	<0.005	<10	230	-	-	-	30	-	23	-	6	-	140	-	130	78	-	-	-	-	<0.01	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.36	<0.0001	0.011	0.011	1.1

					Inorganics			Cyanide		Acidity & Alkalinity					Major Ions													Nutrients		Metals															Iron speciation
					pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
					pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)									0.8															5000	5000			112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																									
2-4m																																									
4-8m																																									
>8m																																									
NEPM 2013 Table 1C GILs, Marine Waters									0.004																			0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																						
CSM_BH05	CSM_BH05	13/05/2019	Normal	656080	8.2	560	620	-	<0.005	<10	220	-	-	-	33	-	29	-	6.2	-	130	-	190	54	-	-	-	-	<0.01	<0.02	0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.37	<0.0001	0.008	0.027	0.99
CSM_BH05	CSM_BH05	11/06/2019	Normal	660130	7.4	520	110	-	<0.005	<10	240	-	-	-	44	-	39	-	8	-	150	-	220	50	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.44	<0.0001	0.005	0.023	<0.5
CSM_BH05	CSM_BH05	29/07/2019	Normal	669059	7.2	500	930	-	0.025	<10	170	-	-	-	28	-	30	-	6.3	-	120	-	160	50	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.45	<0.0001	0.011	0.024	1
CSM_BH06	CSM_BH06	18/04/2019	Normal	651825	-	-	-	-	<0.005	<10	180	-	-	-	42	-	31	-	5.6	-	110	-	180	29	-	-	-	-	<0.01	0.03	<0.001	<0.0002	<0.001	0.009	-	<0.001	-	0.28	<0.0001	0.014	0.032	<0.5
CSM_BH06	CSM_BH06	14/05/2019	Normal	656080	8	580	250	-	<0.005	<10	190	-	-	-	41	-	35	-	5.1	-	100	-	220	23	-	-	-	-	0.02	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.25	<0.0001	0.011	0.054	2.6
QC02	CSM_BH06	14/05/2019	Field_D	656080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.011	0.053	-
CSM_BH06	CSM_BH06	6/06/2019	Normal	660130	7.2	490	240	-	<0.005	<10	190	-	-	-	43	-	34	-	6.8	-	120	-	210	27	-	-	-	-	0.08	0.03	0.004	<0.0002	<0.001	<0.001	-	<0.001	-	0.28	<0.0001	0.02	0.05	2.9
QC04	CSM_BH06	8/06/2019	Field_D	660130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.02	0.052	-
CSM_BH06	CSM_BH06	30/07/2019	Normal	669059	7.3	600	960	-	0.029	<10	180	-	-	-	39	-	35	-	4.9	-	110	-	180	22	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.21	<0.0001	0.019	0.035	0.56
CSM_BH06	CSM_BH06	28/08/2019	Normal	674722	8	600	810	-	<0.005	<10	210	-	-	-	41	-	34	-	5.2	-	110	-	200	22	-	-	-	-	<0.01	0.03	<0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.23	<0.0001	0.019	0.086	<0.05
CSM_BH06	CSM_BH06	26/09/2019	Normal	679636	6.9	390	180	-	<0.005	<10	150	-	-	-	29	-	22	-	4.4	-	71	-	140	15	-	-	-	-	<0.01	0.09	<0.001	<0.0002	0.007	0.043	-	<0.001	-	0.17	<0.0001	0.036	0.094	0.59
CSM_BH06	CSM_BH06	17/10/2019	Normal	683453	7.2	550	91	-	<0.005	<10	190	-	-	-	39	-	32	-	4.9	-	96	-	170	21	-	-	-	-	0.04	<0.02	<0.001	<0.0002	0.003	0.015	-	<0.001	-	0.36	<0.0001	0.027	0.14	2
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	7.4	570	66	-	<0.005	<10	200	-	-	-	43	-	35	-	5.1	-	100	-	210	26	-	-	-	-	0.03	<0.02	0.001	<0.0002	<0.001	0.013	-	<0.001	-	0.33	<0.0001	0.053	0.024	2.7
CSM_BH06	CSM_BH06	17/12/2019	Normal	694466	7	590	62	-	<0.004	<10	180	-	-	-	32	-	30	-	5.1	-	83	-	570	26	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.031	-	<0.001	-	0.29	<0.0001	0.026	0.054	2.5
QC01	CSM_BH06	17/12/2019	Field_D	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.031	-	<0.001	-	-	<0.0001	0.027	0.056	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	704673	7.7	560	69	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	0.002	<0.0002	<0.001	0.01	-	<0.001	-	0.28	<0.0001	0.01	0.067	6.2
CSM_BH06	CSM_BH06	25/02/2020	Normal	706746	-	-	-	-	-	<10	140	-	-	-	37	-	33	-	<5	-	120	-	590	31	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	16/03/2020	Normal	708508	6.3	430	110	-	0.005	<10	120	-	-	-	28	-	30	-	4.6	-	110	-	220	24	-	-	-	-	0.05	<0.02	0.002	<0.0002	<0.001	0.002	-	<0.001	-	0.34	<0.0001	0.006	0.041	5.3
QC01	CSM_BH06	16/03/2020	Interlab_D	ES2009232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	<0.0001	<0.001	0.006	-	<0.001	-	-	<0.0001	0.005	0.038	-
CSM_BH06	CSM_BH06	14/04/2020	Normal	714027	5.9	540	86	-	<0.004	<10	150	-	-	-	41	-	39	-	6.7	-	140	-	250	28	-	-	-	-	0.07	<0.02	0.002	<0.0002	<0.001	0.005	-	<0.001	-	0.27	<0.0001	0.007	0.054	5
QC01	CSM_BH06	14/04/2020	Interlab_D	ES2012716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.002	<0.0001	0.001	0.017	-	<0.001	-	-	<0.0001	0.012	0.098	-
CSM_BH06	CSM_BH06	19/05/2020	Normal	720682	6.7	390	57	-	<0.004	<10	150	-	-	-	28	-	28	-	4.2	-	100	-	180	28	-	-	-	-	0.11	<0.02	0.002	<0.0002	<0.001	0.005	-	<0.001	-	0.31	<0.0001	0.022	0.011	6.7
CSM_BH06	CSM_BH06	18/06/2020	Normal	726825	6.6	470	210	-	<0.004	<10	180	-	-	-	<5	-	<5	-	<5	-	11	-	190	21	-	-	-	-	0.05	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.37	<0.0001	0.004	0.036	8
CSM_BH06	CSM_BH06	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	15/07/2020	Normal	732590	6.6	610	120	-	<0.004	<10	130	<20	130	-	27	-	27	-	4.5	-	110	-	240	28	-	-	-	-	<0.01	-	0.002	<0.0002	0.001	0.016	-	0.001	-	0.29	<0.0001	0.085	0.17	4.9
CSM_BH06	CSM_BH06	18/08/2020	Normal	738860	6.6	490	97	-	<0.004	<10	120	-	-	-	20	-	23	-	<5	-	89	-	200	21	-	-	-	-	0.02	<0.02	0.002	<0.0002	<0.001	0.005	-	<0.001	-	0.38	<0.0001	0.015	0.056	7.3
CSM_BH06	CSM_BH06	14/09/2020	Normal	744463	7	440	200	-	<0.004	<10	86	<20	86	140	20	-	22	-	<5	-	96	-	200	20	-	-	-	-	0.09	-	0.002	<0.0002	<0.001	0.002	-	<0.001	-	0.4	<0.0001	0.017	0.043	8.8
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	6.6	390	120	-	<0.004	<10	110	<20	110	180	26	-	28	-	4.4	-	120	-	310	37	-	-	-	-	0.13	-	0.002	<0.0002	<0.001	0.019	-	<0.001	-	0.33	<0.0001	0.018	0.085	6.2
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	6.6	470	230	-	<0.004	<10	96	-	-	160	19	-	27	-	5.8	-	110	-	270	25	-	-	-	-	0.02	<0.02	0.002	<0.0002	<0.001	0.002	-	<0.001	-	0.44	<0.0001	0.007	0.078	9.6
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	6.4	430	2500	-	<0.004	<10	91	-	-	-	17	-	25	-	4.7	-	110	-	240	24	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.006	-	<0.001	0.74	-	<0.0001	0.017	0.041	11
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	6.6	630	43	-	<0.004	<10	170	<20	170	240	39	-	34	-	<5	-	110	-	480	44	-	-	-	-	0.04	-	0.002	<0.0002	0.004	0.002	-	<0.001	-	0.28	<0.0001	0.017	0.053	6.3
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	6.4	410	350	-	<0.004	<10	150	<20	150	190	25	-	30	-	5.2	-	98	-	410	25	-	-	-	-	0.06	-	<0.001	<0.0002	<0.001	0.025	19	<0.001	0.38	-	<0.0001	0.01	0.038	3.2
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	7.4	510	90	-	<0.004	<10	1900	<20	1900	200	32	-	30	-	4.3	-	99	-	220	33	-	-	-	-	0.01	-	<0.001	<0.0002	<0.001	0.042	-	<0.001	-	0.27	<0.0001	0.01	0.093	0.6
CSM_BH08	CSM_BH08	18/04/2019	Normal	651825	-	-	-	-	<0.005	<10	120	-	-	-	13	-	16	-	4.1	-	79	-	93	41	-	-	-	-	0.06	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.34	<0.0001	0.007	0.02	6.2
QC02	CSM_BH08	18/04/2019	Field_D	651825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.007	0.015	-
CSM_BH08	CSM_BH08	15/05/2019	Normal	656080	7.9	310	180	-	<0.005	<10	120	-	-	-	11	-	16	-	3.3	-	71	-	92	42	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.3	<0.0001	0.003	0.015	5
CSM_BH08	CSM_BH08	6/06/2019	Normal	660130	7.2	250	73	-	<0.005	<10	110	-	-	-	49	-	28	-	11	-	71	-	90	42	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.37	<0.0001	0.006	0.041	3.5
QC03	CSM_BH08	6/06/2019	Interlab_D	ES1917968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.006	0.034	-
CSM_BH08	CSM_BH08	30/07/2019	Normal	669059	7.3	350	6.2	-	0.019	<10	190	-	-	-	19	-	22	-	4.4	-	83	-	110	37	-	-	-	-	0.02	0.06	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.34	<0.0001	0.021	0.011	4.4
CSM_BH08	CSM_BH08	29/08/2019	Normal	674722	7.4	420	34	-	<0.005	<10	160	-	-	-	17	-	23	-	4.3	-	93	-	110	32	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.021	-	<0.001	-	0.4	<0.0001	0.016	0.16	6.6
CSM_BH08	CSM_BH08	26/09/2019	Normal	679636	7.2	280	35	-	<0.005	<10	130	-	-	-	11	-	17	-	3.1	-	78	-	94	41	-	-	-	-	0.02	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.32	<0.0001	0.002	0.014	6.2
CSM_BH08	CSM_BH08	18/10/2019	Normal	683453	7.5	330	9.4	-	<0.005	<10	99	-	-	-	11	-	15	-	3.4	-	75	-	120	43	-	-	-	-	0.03	0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.3	<0.0001	0.003	0.013	6.2
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	7.5	310	5.9	-	<0.005	<10	100	-	-	-	11	-	15	-	3.5	-	77	-	100	43	-	-	-	-	0.01	0.03	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.29	<0.0001	0.007	<0.005	5.7
CSM_BH08	CSM_BH08	16/12/2019	Normal	694466	7.1	250	8.8	-	<0.004	<10	110	-	-	-	11	-	13	-	3.7	-	59	-	110	48	-	-	-	-	<0.01	0.1	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.25	<0.0001	0.008	0.032	5.4
CSM_BH08	CSM_BH08	21/01/2020	Normal	698379	6.4	260	10	-	<0.004	<10	110	-	-	-	9.5	-	14	-	3.1	-	68	-	160	47	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.31	<0.0001	0.003	0.022	5.6
CSM_BH08	CSM_BH08	25/02/2020	Normal	704673	6.7	340	15	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.29	<0.0001	0.001	0.015	4.8
CSM_BH08	CSM_BH08	25/02/2020	Normal	706746	-	-	-	-	-	<10	110	-	-	-	12	-	16	-	<5	-	84	-	93	45	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/03/2020	Normal	708508	6.4	270	130	-	0.005	<10	85	-	-	-	8.9	-	14	-	3.4	-	77	-	92	45	-	-	-	-	0.08	0.03	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.29	<0.0001	0.002	0.028	3.4
CSM_BH08	CSM_BH08	14/04/2020	Normal	714027	6	300	120	-	<0.004	<10	120	-	-	-	12	-	17	-	6.4	-	95	-	120	40	-	-	-	-	0.08	0.2	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.31	<0.0001	0.002	0.019	4.6
CSM_BH08	CSM_BH08	18/05/2020	Normal	720682	6.4	230	11	-	<0.004	<10	100	-	-	-	9	-	13	-	3.1	-	72	-	79	42	-	-	-	-	0.02	0.07	<0.001	<0.0002	<0.001	0.007	-	<0.001	-	0.29	<0.0001	0.005	0.015	4.9
QC01	CSM_BH08	18/05/2020	Interlab_D	ES2017182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.002	-	<0.001	-	-	<0.0001	0.005	0.023	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	726825	6.7	290	290	-	<0.004	<10	140	-	-	-	<5	-	<5	-	<5	-	6.6	-	49	120	-	-	-	-	0.03	0.27	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.29	<0.0001	0.014	0.02	4.2
CSM_BH08	CSM_BH08	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/06/2020	Interlab_D	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.01	0.016	-
CSM_BH08	CSM_BH08	15/07/2020	Normal	732590	6.9	410	17	-	<0.004	<10	150	<20	150	-	14	-	18	-	3.7	-	79	-	90	46	-	-	-	-	0.03	-	<0.001	<0.0002	<0.001	0.009	-	<0.001	-	0.25	<0.0001	0.015	0.034	3.8
QC01	CSM_BH08	15/07/2020	Interlab_D	ES2024606	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.016	<0.005	-
CSM_BH08	CSM_BH08	19/08/2020	Normal	738860	6.7	290	6.7	-	<0.004	<10	120	-	-	-	9.4	-	12	-	<5	-	61	-	84	46	-	-	-	-	0.02	0.35	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.31	<0.0001	0.004	0.015	4.7
CSM_BH08	CSM_BH08	14/09/2020	Normal	744463	6.9	280	14	-	<0.004	<10	94	<20	94	71	8.3	-	12	-	<5	-	67	-	84	48	-	-	-	-	0.19	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.3	<0.0001	0.004	0.012	5.2
QC01	CSM_BH08	14/09/2020	Interlab_D	ES2032425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.002	<0.005	-
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	5.6	250	15	-	<0.004	<10	97	<20	97	89	17	-	12	-	7.2	-	79	-	110	60	-	-	-	-	0.02	-	<0.001	<0.0002	0.001	0.008	-	<0.001	-	0.21	<0.0001	0.02	0.21	3.4
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	0.001	0.009	-	<0.001	-	-	<0.0001	0.022	0.24	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0002	0.001	0.146	-	0.008	-	-	<0.0001	0.03	0.312	-
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	6.6	260	75	-	<0.004	<10	110	-	-	84	10	-	14	-	<5	-	82	-	95	32	-	-	-	-	0.01	0.04	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.28	<0.0001	0.018	0.054	4.5
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	6.1	290	96	-	<0.004	<10	100	-	-	-	9	-	12	-	3.1	-	74	-	92	50	-	-	-	-	0.01	0.12	<0.001	<0.0002	<0.001	0.002	-	<0.001	0.29	-	<0.0001	0.024	0.045	3.8
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	-	<0.0001	0.023	0.045	-

	Inorganics			Cyanide		Acidity & Alkalinity					Major Ions															Nutrients		Metals												Iron speciation
	pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)					0.8															5000	5000					112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																						
2-4m																																						
4-8m																																						
>8m																																						
NEPM 2013 Table 1C GILs, Marine Waters					0.004																				0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																																				
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.001	-	<0.001	-	-	<0.0001	0.022	0.048	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	7.2	300	37	-	<0.004	<10	99	<20	99	78	10	-	13	-	<5	-	75	-	75	57	-	-	-	-	0.02	-	<0.001	0.0002	<0.001	0.15	-	0.004	-	0.29	<0.0001	0.028	0.18	4.3
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	6.8	300	430	-	<0.004	<10	140	<20	140	100	12	-	17	-	4.6	-	76	-	130	43	-	-	-	-	0.05	-	<0.001	<0.0002	<0.001	0.007	32	<0.001	1.7	-	<0.0001	0.002	<0.005	4.7
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	7.4	310	270	-	<0.004	<10	2000	<20	2000	98	12	-	16	-	3.5	-	78	-	100	46	-	-	-	-	0.09	-	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.39	<0.0001	0.005	0.024	4.8
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.005	0.024	-
CSM_BH09S	CSM_BH09S	17/04/2019	Normal	651825	-	-	-	-	<0.005	<10	38	-	-	-	13	-	11	-	7.1	-	120	-	79	270	-	-	-	-	0.2	0.59	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.83	<0.0001	0.009	0.042	9.4
QC01	CSM_BH09S	17/04/2019	Interlab_D	ES1912362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.008	0.042	-
CSM_BH09S	CSM_BH09S	13/05/2019	Normal	656080	7.4	460	66	-	<0.005	<10	76	-	-	-	6.2	-	7.3	-	4.5	-	100	-	57	190	-	-	-	-	0.1	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.54	<0.0001	0.004	0.019	7.1
QC01	CSM_BH09S	13/05/2019	Interlab_D	ES1914810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.005	0.018	-
CSM_BH09S	CSM_BH09S	11/06/2019	Normal	660130	6.6	390	46	-	<0.005	<10	66	-	-	-	12	-	8.7	-	7.2	-	130	-	72	210	-	-	-	-	0.1	0.31	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.78	<0.0001	0.009	0.054	3.4
CSM_BH09S	CSM_BH09S	29/07/2019	Normal	669059	6.7	460	58	-	0.01	<10	59	-	-	-	7.8	-	8.5	-	4.7	-	120	-	88	210	-	-	-	-	0.08	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.64	<0.0001	0.006	0.036	7.2
QC01	CSM_BH09S	29/07/2019	Interlab_D	ES1924197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.005	-	<0.001	-	-	<0.0001	0.007	0.04	-
CSM_BH09S	CSM_BH09S	28/08/2019	Normal	674722	6.8	440	87	-	<0.005	<10	61	-	-	-	5.1	-	6.6	-	3.6	-	110	-	49	160	-	-	-	-	0.04	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.65	<0.0001	0.008	0.045	4.6
QC01	CSM_BH09S	28/08/2019	Interlab_D	EM1914568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.009	0.041	-
CSM_BH09S	CSM_BH09S	25/09/2019	Normal	679636	6.6	390	49	-	<0.005	<10	49	-	-	-	6.4	-	7.9	-	3.4	-	120	-	56	220	-	-	-	-	0.03	0.32	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.79	<0.0001	0.009	0.056	4.7
QC01	CSM_BH09S	25/09/2019	Interlab_D	ES1931406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.001	-	<0.001	-	-	<0.0001	0.008	0.048	-
CSM_BH09S	CSM_BH09S	16/10/2019	Normal	683453	6.7	420	37	-	<0.005	<10	39	-	-	-	6.1	-	8	-	3.5	-	110	-	100	200	-	-	-	-	0.02	0.18	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.87	<0.0001	0.009	0.04	4
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	7	400	55	-	<0.005	<10	55	-	-	-	5.5	-	8.4	-	3.4	-	110	-	65	180	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.88	<0.0001	0.008	0.041	6.5
CSM_BH09S	CSM_BH09S	16/12/2019	Normal	694466	6.7	380	48	-	<0.004	<10	75	-	-	-	4.1	-	6.7	-	2.7	-	88	-	48	150	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.73	<0.0001	0.006	0.031	6.4
QC02	CSM_BH09S	16/12/2019	Interlab_D	ES1941823	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.006	0.037	-
CSM_BH09S	CSM_BH09S	21/01/2020	Normal	698379	6.1	340	28	-	<0.004	<10	77	-	-	-	3.7	-	6.2	-	2.6	-	97	-	46	160	-	-	-	-	0.05	0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.71	<0.0001	0.004	0.023	7.5
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	704673	7.1	370	21	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.6	<0.0001	0.002	0.014	7.7
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	706746	-	-	-	-	-	<10	76	-	-	-	3.3	-	6.4	-	<5	-	110	-	52	150	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH09S	24/02/2020	Interlab_D	ES2006512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.003	0.011	-
CSM_BH09S	CSM_BH09S	17/03/2020	Normal	708508	6.1	330	59	-	0.005	<10	60	-	-	-	3.3	-	6.9	-	3	-	100	-	46	120	-	-	-	-	0.05	<0.02	0.001	<0.0002	<0.001	0.009	-	<0.001	-	0.67	<0.0001	0.008	0.047	5.6
CSM_BH09S	CSM_BH09S	16/04/2020	Normal	714027	5.8	320	74	-	<0.004	<10	79	-	-	-	4	-	8	-	5.1	-	130	-	59	130	-	-	-	-	0.07	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.82	<0.0001	0.005	0.028	9.2
CSM_BH09S	CSM_BH09S	20/05/2020	Normal	720682	6.4	250	140	-	<0.004	<10	82	-	-	-	3	-	5.2	-	2.5	-	97	-	47	120	-	-	-	-	0.05	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.81	<0.0001	0.003	0.01	8.2
CSM_BH09S	CSM_BH09S	19/06/2020	Normal	726825	6.6	320	53	-	<0.004	<10	100	-	-	-	<5	-	6.1	-	<5	-	110	-	48	120	-	-	-	-	0.05	<0.02	<0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.7	<0.0001	0.009	0.058	8.1
CSM_BH09s	CSM_BH09S	19/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/07/2020	Normal	732590	6.4	420	190	-	0.014	<10	87	<20	87	-	3.6	-	7.6	-	3.5	-	110	-	49	130	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.8	<0.0001	0.007	0.025	6.2
QC02	CSM_BH09S	16/07/2020	Field_D	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.007	0.025	-
CSM_BH09S	CSM_BH09S	18/08/2020	Normal	738860	6.4	360	57	-	<0.004	<10	59	-	-	-	<5	-	6.1	-	<5	-	83	-	52	140	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	1.2	<0.0001	0.011	0.051	6.6
QC02	CSM_BH09S	18/08/2020	Field_D	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	-	<0.0001	0.011	0.051	-
CSM_BH09S	CSM_BH09S	16/09/2020	Normal	744463	6.5	350	91	-	<0.004	<10	59	<20	59	35	<5	-	6.4	-	<5	-	89	-	51	130	-	-	-	-	0.05	-	<0.001	<0.0002	<0.001	0.015	-	<0.001	-	0.89	<0.0001	0.006	0.031	7.3
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	6.3	280	98	-	<0.004	<10	59	<20	59	41	3.6	-	7.7	-	3	-	110	-	69	190	-	-	-	-	0.04	-	<0.001	<0.0002	<0.001	0.11	-	0.001	-	0.89	<0.0001	0.017	0.1	5.7
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	6.4	370	41	-	<0.004	<10	56	-	-	47	<5	-	8.5	-	<5	-	110	-	55	120	-	-	-	-	0.02	<0.02	0.001	<0.0002	<0.001	0.012	-	<0.001	-	1.1	<0.0001	0.009	0.049	5.3
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	6.3	370	84	-	<0.004	<10	63	-	-	-	3.8	-	7.9	-	2.8	-	110	-	60	170	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.086	-	0.002	1.3	-	<0.0001	0.022	0.15	5.3
CSM_BH10S	CSM_BH10S	16/04/2019	Normal	651825	-	-	-	-	<0.005	<10	23	-	-	-	3.4	-	5.5	-	3.1	-	49	-	38	85	-	-	-	-	<0.01	1.6	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.52	<0.0001	0.002	0.006	<0.5
CSM_BH10S	CSM_BH10S	13/05/2019	Normal	656080	6.6	270	210	-	<0.005	<10	<20	-	-	-	4	-	5.6	-	3.3	-	45	-	130	350	-	-	-	-	<0.01	1.7	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.43	<0.0001	0.002	0.011	0.13
CSM_BH10S	CSM_BH10S	11/06/2019	Normal	660130	5.9	140	210	-	<0.005	<10	<20	-	-	-	3.7	-	6.1	-	4.8	-	42	-	37	66	-	-	-	-	0.06	2.3	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.49	<0.0001	0.001	0.006	<0.5
CSM_BH10S	CSM_BH10S	30/07/2019	Normal	669059	6.7	220	200	-	0.014	<10	35	-	-	-	6.9	-	6.4	-	3.6	-	38	-	36	61	-	-	-	-	<0.01	2.3	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.41	<0.0001	0.002	0.011	<0.05
CSM_BH10S	CSM_BH10S	29/08/2019	Normal	674722	6.1	240	170	-	<0.005	<10	20	-	-	-	3.9	-	5.5	-	2.9	-	39	-	19	57	-	-	-	-	<0.01	2	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	0.48	<0.0001	0.002	0.014	<0.05
CSM_BH10S	CSM_BH10S	25/09/2019	Normal	679636	6.6	150	140	-	<0.005	<10	25	-	-	-	3.9	-	5.4	-	2.3	-	34	-	20	56	-	-	-	-	<0.01	1.8	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.51	<0.0001	0.002	0.009	<0.05
CSM_BH10S	CSM_BH10S	16/10/2019	Normal	683453	6.5	190	210	-	<0.005	<10	20	-	-	-	3.5	-	5.3	-	2.5	-	34	-	70	55	-	-	-	-	<0.01	1.6	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.53	<0.0001	0.002	<0.005	0.11
QC01	CSM_BH10S	16/10/2019	Interlab_D	ES1934142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.001	<0.005	-
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	6.2	170	69	-	<0.005	<10	<20	-	-	-	3.4	-	5.1	-	2.3	-	35	-	45	56	-	-	-	-	<0.01	1.1	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.47	<0.0001	0.002	<0.005	<0.05
QC02	CSM_BH10S	14/11/2019	Field_D	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.002	<0.005	-
CSM_BH10S	CSM_BH10S	17/12/2019	Normal	694466	6.1	200	260	-	<0.004	<10	21	-	-	-	3.2	-	4.6	-	2.3	-	18	-	16	54	-	-	-	-	<0.01	0.89	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.45	<0.0001	0.002	0.006	0.16
CSM_BH10S	CSM_BH10S	20/01/2020	Normal	698379	6	160	77	-	<0.004	<10	<20	-	-	-	2.9	-	4.6	-	2.1	-	27	-	16	55	-	-	-	-	0.02	0.93	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.49	<0.0001	0.001	<0.005	<0.05
QC01	CSM_BH10S	20/01/2020	Interlab_D	ES2001825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	<0.001	<0.005	-
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	704673	6.7	200	97	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.51	<0.0001	<0.001	<0.005	0.05
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	706746	-	-	-	-	-	<10	22	-	-	-	<5	-	6.6	-	<5	-	34	-	24	55	-	-	-	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2020	Normal	708508	5.7	170	53	-	0.005	<10	25	-	-	-	4.4	-	6	-	3	-	31	-	23	58	-	-	-	-	0.03	1.7	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.54	<0.0001	0.002	<0.005	<0.5
QC02	CSM_BH10S	17/03/2020	Field_D	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.002	<0.005	-
CSM_BH10S	CSM_BH10S	15/04/2020	Normal	714027	7.4	180	44	-	<0.004	<10	67	-	-	-	18	-	7.5	-	6	-	40	-	33	47	-	-	-	-	0.02	1.8	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.46	<0.0001	<0.001	<0.005	<0.05
QC02	CSM_BH10S	15/04/2020	Field_D	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	<0.001	<0.005	-
CSM_BH10S	CSM_BH10S	18/05/2020	Normal	720682	6.3	150	160	-	<0.004	<10	57	-	-	-	13	-	6	-	3.1	-	30	-	19	51	-	-	-	-	0.01	2.1	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.5	<0.0001	0.001	<0.005	0.12
QC02	CSM_BH10S	20/05/2020	Field_D	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	<0.002	<0.01	0.011	-	<0.01	-	-	<0.001	<0.01	<0.05	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	726825	6.7	240	150	-	<0.004	<10	130	-	-	-	30	-	7.9	-	5.2	-	33	-	23	49	-	-	-	-	0.01	3.8	<0.001	<0.0002	<0.001	0.022	-	0.001	-	0.41	<0.0001	0.008	0.059	<0.05
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/07/2020	Normal	732590	5.9	210	360	-	0.007	<10	34	<20	34	-	12	-	14	-	9.9	-	32	-	22	56	-	-	-	-	0.06	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.43	<0.0001	0.014	0.006	<0.5
CSM_BH10S	CSM_BH10S	17/08/2020	Normal	738860	6.1	180	920	-	<0.004	<10	40	-	-	-	6.5	-	5.5	-	<5	-	27	-	23	62	-	-	-	-	<0.01	2.1	<0.001	<0.0002	<0.001	0.011	-	<0.001	-	0.6	<0.0001	0.003	0.009	<0.05
CSM_BH10S	CSM_BH10S	15/09/2020	Normal	744463	6.3	170	270	-	<0.004	<10	22	<20	22	32	<5	-	5.3	-	<5	-	35	-	23	62	-	-	-	-	0.08	-	<0.001	<0.0002	<0.001	0.088	-	0.003	-	0.51	<0.0001	0.01	0.086	<0.05
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	5.1	170	7900	-	<0.004	<10	43	<20	43	120	16	-	19	-	12	-	33	-	39	100	-	-	-	-	0.02	-	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.61	<0.0001	0.015	0.14	<0.5
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	6.2	160	710	-	<0.004	<10	28	-	-	52	6	-	9	-	11	-	37	-	51	41	-	-	-	-	<0.01	1.9	0.001	<0.0002	0.003	0.004	-	0.004	-	0.57	<0.0001	0.002	0.006	<0.5

	Inorganics			Cyanide		Acidity & Alkalinity					Major Ions														Nutrients		Metals												Iron speciation
	pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)					0.8															5000	5000					112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																						
2-4m																																						
4-8m																																						
>8m																																						
NEPM 2013 Table 1C GILs, Marine Waters					0.004																				0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																																				
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0004	<0.001	0.087	-	0.003	-	-	<0.0001	0.013	0.153	-
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	5.9	150	1700	-	<0.004	<10	29	-	-	-	8.1	-	8.1	-	5.3	-	35	-	25	58	-	-	-	-	<0.01	1.9	<0.001	<0.0002	<0.001	0.002	-	<0.001	0.71	-	<0.0001	0.002	<0.005	<0.5
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	6.2	210	340	-	<0.004	<10	26	<20	26	43	5.8	-	7	-	<5	-	36	-	22	73	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.58	<0.0001	0.002	0.12	<0.05
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	5.6	110	230	-	<0.004	<10	24	<20	24	32	3.4	-	5.7	-	3.3	-	30	-	47	55	-	-	-	-	0.11	-	<0.001	<0.0002	<0.001	0.18	4	0.002	0.57	-	<0.0001	0.012	0.075	<0.5
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.004	-	<0.001	-	-	<0.0001	0.002	<0.005	-
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	6.7	110	1500	-	<0.004	<10	1300	<20	1300	42	6.3	-	6.3	-	2.9	-	34	-	23	72	-	-	-	-	0.31	-	<0.001	0.0002	<0.001	0.13	-	0.006	-	0.5	<0.0001	0.031	0.23	<0.05
GASW_BH10	GASW_BH10	5/06/2019	Normal	659250	7.8	560	84	-	0.005	<10	310	<20	310	-	44	-	34	-	18	-	130	-	150	42	-	-	-	-	0.02	-	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.049	<0.0001	0.007	<0.005	<0.5
GASW_BH10	GASW_BH10	30/07/2019	Normal	669059	7	610	150	-	<0.005	<10	330	-	-	-	48	-	43	-	9.7	-	130	-	160	<5	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.25	<0.0001	0.042	<0.005	3.7
GASW_BH10	GASW_BH10	28/08/2019	Normal	674722	7.7	1100	260	-	<0.005	<10	440	-	-	-	41	-	40	-	29	-	150	-	170	<5	-	-	-	-	0.16	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.32	<0.0001	0.043	0.029	4.2
GASW_BH10	GASW_BH10	26/09/2019	Normal	679636	7.4	920	290	-	<0.005	<10	450	-	-	-	71	-	52	-	15	-	150	-	180	<5	-	-	-	-	<0.01	<0.02	0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.48	<0.0001	0.026	0.015	11
GASW_BH10	GASW_BH10	17/10/2019	Normal	683453	7.4	830	280	-	<0.005	<10	370	-	-	-	67	-	47	-	9.4	-	130	-	170	<5	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.38	<0.0001	0.031	0.01	9
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	7.1	930	200	-	<0.005	<10	440	-	-	-	82	-	58	-	15	-	150	-	730	<5	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.49	0.0002	0.018	<0.005	11
GASW_BH10	GASW_BH10	16/12/2019	Normal	694466	6.7	1200	64	-	<0.004	<10	520	-	-	-	88	-	67	-	14	-	140	-	110	<5	-	-	-	-	0.05	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.67	<0.0001	0.03	0.026	18
GASW_BH10	GASW_BH10	21/01/2020	Normal	698379	6.8	890	170	-	<0.004	<10	560	-	-	-	110	-	72	-	17	-	150	-	910	<5	-	-	-	-	0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.7	<0.0001	0.029	0.013	19
GASW_BH10	GASW_BH10	24/02/2020	Normal	704673	7.8	1100	85	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.46	<0.0001	0.021	0.015	15
GASW_BH10	GASW_BH10	24/02/2020	Normal	706746	-	-	-	-	-	<10	530	-	-	-	95	-	54	-	21	-	170	-	200	<5	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/03/2020	Normal	708508	6.5	1000	250	-	0.005	<10	460	-	-	-	98	-	56	-	15	-	140	-	190	<2	-	-	-	-	0.02	<0.02	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.39	<0.0001	0.018	0.015	8.6
GASW_BH10	GASW_BH10	14/04/2020	Normal	714027	6.4	950	240	-	<0.004	<10	490	-	-	-	110	-	66	-	17	-	180	-	360	<5	-	-	-	-	0.1	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.36	<0.0001	0.038	0.049	7.6
GASW_BH10	GASW_BH10	19/05/2020	Normal	720682	7	760	980	-	<0.004	<10	580	-	-	-	100	-	65	-	14	-	160	-	160	<5	-	-	-	-	<0.01	<0.02	<0.01	<0.002	<0.01	<0.01	-	<0.01	-	0.5	<0.001	0.036	<0.05	12
GASW_BH10	GASW_BH10	18/06/2020	Normal	726825	6.6	840	590	-	<0.004	<10	950	-	-	-	94	-	62	-	12	-	150	-	190	<5	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.29	<0.0001	0.026	0.03	13
GASW_BH10	GASW_BH10	15/07/2020	Normal	732590	6.9	840	570	-	<0.004	<10	630	<20	630	-	110	-	69	-	14	-	150	-	190	5.4	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.22	<0.0001	0.01	0.006	8.3
GASW_BH10	GASW_BH10	17/08/2020	Normal	738860	7	880	430	-	<0.004	<10	650	-	-	-	78	-	51	-	9.1	-	110	-	180	<5	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.25	0.0004	0.031	0.02	7.6
GASW_BH10	GASW_BH10	14/09/2020	Normal	744463	7.2	760	390	-	<0.004	<10	530	<20	530	420	83	-	50	-	9	-	120	-	190	<5	-	-	-	-	0.05	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.21	0.0002	0.018	0.008	3.6
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	6.9	730	530	-	<0.004	<10	580	<20	580	470	95	-	57	-	12	-	140	-	310	10	-	-	-	-	<0.01	-	0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.18	<0.0001	0.024	0.016	4.6
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	7.7	820	200	-	<0.004	<10	540	-	-	380	73	-	49	-	12	-	140	-	170	<5	-	-	-	-	<0.01	<0.02	0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.17	<0.0001	0.036	0.035	6.9
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	6.9	780	880	-	<0.004	<10	610	-	-	-	96	-	55	-	12	-	140	-	210	2.1	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	0.37	-	<0.0001	0.018	0.01	6.7
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	7.4	840	2600	-	<0.004	<10	590	<20	590	510	110	-	60	-	12	-	140	-	200	<5	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.17	<0.0001	0.015	0.024	1.2
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	6.8	650	37,000	-	<0.004	<10	520	<20	520	340	60	-	47	-	11	-	110	-	200	<5	-	-	-	-	0.12	-	0.003	<0.0002	<0.001	0.085	30	<0.001	0.58	-	<0.0001	0.034	0.057	4.9
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	7.9	620	17,000	-	<0.004	<10	2200	<20	2200	450	100	-	46	-	10	-	120	-	170	<5	-	-	-	-	0.16	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.15	<0.0001	0.007	0.023	0.63
GASW_BH11	GASW_BH11	5/06/2019	Normal	659250	6.1	210	300	-	0.013	<10	71	<20	71	-	5.1	-	8	-	2.7	-	57	-	43	42	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.2	<0.0001	0.002	0.022	2.5
QC02	GASW_BH11	5/06/2019	Field_D	659250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.002	0.022	-
GASW_BH11	GASW_BH11	30/07/2019	Normal	669059	6.3	210	44	-	<0.005	<10	70	-	-	-	4.4	-	8.4	-	2	-	56	-	100	59	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.2	<0.0001	0.002	0.007	3.1
GASW_BH11	GASW_BH11	28/08/2019	Normal	674722	6.6	250	22	-	<0.005	<10	55	-	-	-	5.3	-	7.1	-	1.7	-	52	-	39	48	-	-	-	-	0.01	<0.02	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.23	<0.0001	0.002	0.016	1.2
GASW_BH11	GASW_BH11	25/09/2019	Normal	679636	6.3	130	28	-	<0.005	<10	41	-	-	-	4.7	-	6.7	-	1.3	-	45	-	37	46	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.25	<0.0001	0.002	0.016	1.1
GASW_BH11	GASW_BH11	16/10/2019	Normal	683453	6.5	200	11	-	<0.005	<10	37	-	-	-	4.5	-	6.3	-	1.4	-	46	-	74	50	-	-	-	-	0.04	<0.02	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.23	<0.0001	0.003	0.011	1.2
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	6.5	170	1600	-	<0.005	<10	53	-	-	-	5	-	7	-	1.9	-	50	-	97	51	-	-	-	-	0.02	<0.02	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.2	<0.0001	0.002	0.012	1.9
GASW_BH11	GASW_BH11	16/12/2019	Normal	694466	6.2	180	28	-	<0.004	<10	55	-	-	-	4.1	-	6	-	1.6	-	48	-	68	54	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.16	<0.0001	0.003	0.024	3.8
GASW_BH11	GASW_BH11	22/01/2020	Normal	698379	6.1	180	120	-	<0.004	<10	38	-	-	-	7.7	-	4.7	-	1.6	-	38	-	81	52	-	-	-	-	0.02	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.15	<0.0001	<0.001	0.021	1.6
GASW_BH11	GASW_BH11	24/02/2020	Normal	704673	6.8	290	200	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	-	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.32	<0.0001	<0.001	0.036	1.8
GASW_BH11	GASW_BH11	24/02/2020	Normal	706746	-	-	-	-	-	<10	96	-	-	-	27	-	6.1	-	<5	-	34	-	44	48	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/03/2020	Normal	708508	6	190	300	-	0.005	<10	240	-	-	-	15	-	6.3	-	3.3	-	41	-	44	44	-	-	-	-	0.06	<0.02	0.002	<0.0002	<0.001	0.013	-	<0.001	-	0.16	<0.0001	0.007	0.062	2.1
GASW_BH11	GASW_BH11	16/04/2020	Normal	714027	6.3	320	8000	-	<0.004	<10	270	-	-	-	26	-	6.7	-	4.9	-	49	-	77	39	-	-	-	-	0.26	<0.02	0.002	<0.0002	<0.001	0.012	-	<0.001	-	0.31	<0.0001	0.006	0.086	1.7
GASW_BH11	GASW_BH11	20/05/2020	Normal	720682	6.8	270	1800	-	<0.004	<10	200	-	-	-	27	-	6.9	-	<5	-	47	-	35	46	-	-	-	-	0.32	<0.02	<0.01	<0.002	<0.01	0.015	-	<0.01	-	1.1	<0.001	0.017	0.12	2.1
GASW_BH11	GASW_BH11	19/06/2020	Normal	726825	6.6	220	1200	-	<0.004	<10	96	-	-	-	7.4	-	5.5	-	<5	-	44	-	36	42	-	-	-	-	0.08	0.05	<0.001	<0.0002	<0.001	0.011	-	0.001	-	0.2	<0.0001	0.007	0.11	0.59
GASW_BH11	GASW_BH11	16/07/2020	Normal	732590	6.3	650	2100	-	<0.004	<10	47	<20	47	-	18	-	13	-	6.2	-	45	-	39	51	-	-	-	-	0.02	-	0.002	<0.0002	<0.001	0.084	-	0.001	-	0.18	<0.0001	0.011	0.09	1.9
GASW_BH11	GASW_BH11	17/08/2020	Normal	738860	6.9	220	3900	-	<0.004	<10	170	-	-	-	14	-	<5	-	<5	-	27	-	27	25	-	-	-	-	0.06	0.03	<0.001	<0.0002	<0.001	0.015	-	<0.001	-	0.21	<0.0001	0.005	0.059	0.61
GASW_BH11	GASW_BH11	16/09/2020	Normal	744463	6.7	260	6100	-	<0.004	<10	120	<20	120	43	8.6	-	5.3	-	<5	-	37	-	37	45	-	-	-	-	0.12	-	<0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.23	<0.0001	0.004	0.064	0.47
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	6.6	180	920	-	<0.004	<10	86	<20	86	110	22	-	12	-	5.9	-	53	-	74	73	-	-	-	-	0.13	-	<0.001	<0.0002	<0.001	0.012	-	<0.001	-	0.18	<0.0001	0.004	0.06	<0.5
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	7.1	190	790	-	<0.004	<10	81	-	-	88	18	-	10	-	9.6	-	47	-	76	34	-	-	-	-	0.03	0.04	0.001	<0.0002	<0.001	0.016	-	<0.001	-	0.19	<0.0001	0.004	0.053	1.3
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	6.6	270	5100	-	<0.004	<10	96	-	-	-	29	-	12	-	6.6	-	50	-	47	52	-	-	-	-	0.1	0.11	<0.001	<0.0002	<0.001	0.004	-	<0.001	0.58	-	<0.0001	0.003	0.04	<0.5
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	8	350	1600	-	<0.004	<10	150	<20	150	130	38	-	7.9	-	<5	-	44	-	34	47	-	-	-	-	0.06	-	0.005	0.0006	<0.001	0.14	-	0.006	-	0.29	<0.0001	0.031	0.3	4.1
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	6.6	200	2600	-	<0.004	<10	120	<20	120	100	29	-	7	-	8.1	-	31	-	50	26	-	-	-	-	0.37	-	<0.001	<0.0002	<0.001	0.15	20	0.001	0.39	-	<0.0001	0.017	0.17	<0.5
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	7.4	210	7200	-	<0.004	<10	1800	<20	1800	73	20	-	5.8	-	2.6	-	36	-	34	31	-	-	-	-	0.35	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.17	<0.0001	0.002	0.069	0.54
BH23	GASW_BH23	23/08/2019	Normal	ES1926979	7.34	719	484	<0.004	0.081	<1	139	<1	139	-	-	139	-	8	-	30	-	56	19	-	389	10.8	11.4	2.77	0.86	-	0.006	<0.0001	<0.001	<0.001	-	<0.001	-	0.028	<0.0001	0.002	<0.005	<0.05
GW-BR1	GASW_BH23	23/08/2019	Field_D	ES1926979	7.68	678	1200	0.005	0.109	<1	129	<1	129	-	-	137	-	10	-	29	-	54	20	-	327	10.7	9.95	3.86	0.87	-	0.004	<0.0001	<0.001	<0.001	-	0.001	-	0.06	<0.0001	0.001	<0.005	<0.05
GASW_BH23	GASW_BH23	25/09/2019	Normal	679636	7.6	640	480	-	<0.005	<10	180	-	-	-	160	-	14	-	13	-	39	-	19	380	-	-	-	-	0.25	<0.02	0.004	<0.0002	<0.001	0.002	-	<0.001	-	0.49	<0.0001	0.004	0.55	10
GASW_BH23	GASW_BH23	16/10/2019	Normal	683453	7.7	710	25	-	0.006	<10	190	-	-	-	150	-	12	-	11	-	31	-	45	330	-	-	-	-	0.52	<0.02	0.004	<0.0002	<0.001	<0.001	-	<0.001	-	0.41	<0.0001	0.001	0.007	9.8
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	8.1	710	23	-	0.026	<10	210	-	-	-	170	-	14	-	19	-	48	-	33	320	-	-	-	-	0.66	<0.02	0.004	<0.0002	<0.001	<0.001	-	<0.001	-	0.33	<0.0001	<0.001	<0.005	7.8
GASW_BH23	GASW_BH23	16/12/2019	Normal	694466	11	290	2.4	-	0.013	86	<20	-	-	-	37	-	<0.5	-	15	-	50	-	35	97	-	-	-	-	0.27	0.97	0.005	<0.0002	0.003	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	0.005	0.16
GASW_BH23	GASW_BH23	22/01/2020	Normal	698379	8.1	580	10	-	0.012	<10	3000	-	-	-	130	-	11	-	12	-	32	-	21	270	-	-	-	-	0.72	<0.02	0.005	<0.0002	<0.001	<0.001	-	0.001	-	0.28	<0.0001	<0.001	0.14	3
GASW_BH23	GASW_BH23	24/02/2020	Normal	704673	8.1	420	780	-	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-	0.005	<0.0002	<0.001	<0.001	-	<0.001	-	0.12	<0.0001	<0.001	<0.005	4.6
GASW_BH23	GASW_BH23	24/02/2020	Normal	706746	-	-	-	-	-	<10	320	-	-	-	120	-	12	-	25	-	61	-	70	120	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/03/2020	Normal	708508	7.1	360	28	-	0.009	<10	160	-	-	-	82	-	6.8	-	8.7	-	25	-	13	120	-	-	-	-	0.31	<0.02	0.005	<0.0002	<0.001	0.001	-	<0.001	-	0.2	<0.0001	0.001	0.037	1.3
GASW_BH23	GASW_BH23	16/04/2020	Normal	714027	-	-	-	-	0.079	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.98	-	0.011	<0.0002	<0.001	<0.001	-	<0.001	-	0.053	<0.0001	<0.001	<0.005	0.23
GASW_BH23	GASW_BH23	20/05/2020	Normal	720682	-	-	-	-	<0.004	-	-	-	-	-	80	-	<5	-	20	-	37	-	-	-	-	-	-	-	0.5	-	0.007	<0.0002	<0.001	0.008	-	<0.001	-	-	<0.0001	0.006	0.041	-

					Inorganics			Cyanide		Acidity & Alkalinity					Major Ions													Nutrients		Metals															Iron speciation
					pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
					pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)									0.8															5000	5000			112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																									
2-4m																																									
4-8m																																									
>8m																																									
NEPM 2013 Table 1C GILs, Marine Waters									0.004																			0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																						
GASW_BH23	GASW_BH23	17/06/2020	Normal	726825	7.6	380	1400	-	0.008	<10	410	-	-	-	82	-	5.5	-	14	-	30	-	18	54	-	-	-	-	<0.01	<0.02	0.003	<0.0002	<0.001	0.011	-	<0.001	-	0.22	<0.0001	0.004	0.042	2.1
GASW_BH23	GASW_BH23	16/07/2020	Normal	732590	7.2	860	6100	-	<0.004	<10	540	<20	540	-	330	-	24	-	25	-	33	-	20	180	-	-	-	-	0.14	-	0.002	<0.0002	<0.001	0.008	-	<0.001	-	0.15	<0.0001	0.004	0.029	<0.5
GASW_BH23	GASW_BH23	17/08/2020	Normal	738860	7.4	390	1100	-	0.01	<10	340	-	-	-	80	-	6.2	-	12	-	23	-	15	79	-	-	-	-	0.07	<0.02	0.003	<0.0002	<0.001	0.005	-	<0.001	-	0.24	<0.0001	0.007	0.009	4.6
GASW_BH23	GASW_BH23	15/09/2020	Normal	744463	-	-	-	-	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	0.002	<0.0002	<0.001	0.07	-	<0.001	-	0.2	<0.0001	0.011	0.064	2.3
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	7.2	270	51	-	<0.004	<10	110	<20	110	230	81	-	5.6	-	10	-	25	-	29	240	-	-	-	-	0.06	-	<0.001	<0.0002	<0.001	0.016	-	0.001	-	0.14	<0.0001	0.002	0.19	0.8
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	7.8	610	88	-	0.01	<10	480	-	-	380	140	-	11	-	20	-	36	-	24	69	-	-	-	-	0.06	<0.02	0.005	<0.0002	<0.001	0.004	-	<0.001	-	0.32	<0.0001	0.002	<0.005	9.1
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	7.4	690	140	-	0.013	<10	400	-	-	-	180	-	10	-	22	-	37	-	26	190	-	-	-	-	0.11	<0.02	0.003	<0.0002	<0.001	0.003	-	0.003	0.48	-	<0.0001	0.001	0.01	4.5
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	8.2	550	8.4	-	<0.004	<10	230	<20	230	340	120	-	10	-	9.5	-	22	-	55	160	-	-	-	-	0.04	-	<0.001	0.0002	<0.001	0.018	-	<0.001	-	0.2	<0.0001	0.002	0.22	0.57
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	7.1	390	29	-	<0.004	<10	220	<20	220	490	190	-	7.3	-	10	-	29	-	15	170	-	-	-	-	0.4	-	0.004	<0.0002	<0.001	0.008	3.5	<0.001	0.5	-	<0.0001	0.002	0.12	4.9
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	8	320	22	-	<0.004	<10	1700	<20	1700	220	76	-	6.4	-	7.3	-	22	-	32	98	-	-	-	-	0.3	-	0.003	<0.0002	<0.001	<0.001	-	<0.001	-	0.26	<0.0001	<0.001	0.052	5.4
GW-SR1	GASW_BH25A	23/08/2019	Interlab_D	673339	8	770	270	-	0.096	<10	120	-	-	-	180	-	11	-	6.5	-	31	-	15	420	-	-	-	-	0.48	0.11	0.002	<0.0002	<0.001	<0.001	-	<0.001	0.43	-	<0.0001	0.003	<0.005	0.47
BH25a	GASW_BH25A	23/08/2019	Normal	ES1926979	7.28	686	245	0.015	0.163	<1	100	<1	100	-	-	169	-	9	-	6	-	28	18	-	392	10.5	10.7	0.58	0.48	-	0.002	<0.0001	<0.001	<0.001	-	<0.001	-	0.348	0.0002	0.002	<0.005	0.46
GASW_BH25A	GASW_BH25A	25/09/2019	Normal	679636	7.5	460	21	-	0.023	<10	97	-	-	-	97	-	6.1	-	6.6	-	47	-	26	260	-	-	-	-	0.39	<0.02	0.006	<0.0002	<0.001	0.003	-	<0.001	-	0.14	<0.0001	<0.001	<0.005	0.31
GASW_BH25a	GASW_BH25A	16/10/2019	Normal	683453	8.1	360	37	-	0.009	<10	110	-	-	-	67	-	4.4	-	5.5	-	28	-	48	140	-	-	-	-	0.42	0.03	0.005	<0.0002	<0.001	<0.001	-	<0.001	-	0.094	<0.0001	<0.001	<0.005	0.15
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	8.3	410	53	-	0.032	<10	120	-	-	-	86	-	5.5	-	6.8	-	31	-	85	180	-	-	-	-	0.46	<0.02	0.006	<0.0002	<0.001	0.008	-	0.001	-	0.11	<0.0001	0.008	0.026	0.35
GASW_BH25A	GASW_BH25A	16/12/2019	Normal	694466	8.2	450	21	-	0.074	<10	110	-	-	-	100	-	5.6	-	7.9	-	30	-	25	230	-	-	-	-	0.74	<0.02	0.006	<0.0002	<0.001	<0.001	-	<0.001	-	0.086	<0.0001	<0.001	<0.005	0.26
GASW_BH25A	GASW_BH25A	22/01/2020	Normal	698379	6.6	430	130	-	0.16	<10	180	-	-	-	84	-	5.9	-	6.1	-	20	-	15	130	-	-	-	-	0.23	<0.02	0.012	<0.0002	<0.001	<0.001	-	<0.001	-	0.091	<0.0001	<0.001	<0.005	0.95
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	704673	7.2	380	340	-	0.055	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-	0.011	<0.0002	<0.001	<0.001	-	<0.001	-	0.096	<0.0001	<0.001	<0.005	8.3
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	706746	-	-	-	-	-	<10	170	-	-	-	81	-	5.8	-	<5	-	20	-	63	97	-	-	-	-	-	<0.02	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25a	GASW_BH25A	17/03/2020	Normal	708508	7.3	220	16	-	0.032	<10	99	-	-	-	41	-	3.1	-	4.2	-	20	-	11	47	-	-	-	-	0.27	0.13	0.008	<0.0002	<0.001	0.008	-	<0.001	-	0.029	<0.0001	0.008	0.047	<0.5
GASW_BH25A	GASW_BH25A	16/04/2020	Normal	714027	6.3	250	120	-	0.14	<10	160	-	-	-	76	-	5.3	-	7.7	-	27	-	26	43	-	-	-	-	0.61	<0.02	0.01	<0.0002	<0.001	<0.001	-	<0.001	-	0.075	<0.0001	<0.001	<0.005	0.55
GASW_BH25A	GASW_BH25A	20/05/2020	Normal	720682	7.2	180	800	-	0.025	<10	190	-	-	-	64	-	<5	-	5.2	-	23	-	13	38	-	-	-	-	0.25	<0.02	0.012	<0.0002	<0.001	0.001	-	<0.001	-	0.37	0.0003	<0.001	<0.005	0.72
GASW_BH25A	GASW_BH25A	19/06/2020	Normal	726825	7.3	190	210	-	0.034	<10	190	-	-	-	53	-	<5	-	<5	-	19	-	10	46	-	-	-	-	0.01	<0.02	0.009	<0.0002	<0.001	<0.001	-	<0.001	-	0.038	0.0001	<0.001	<0.005	0.36
GASW_BH25A	GASW_BH25A	16/07/2020	Normal	732590	7.6	290	56	-	0.007	<10	150	<20	150	-	81	-	6.2	-	4.2	-	20	-	17	120	-	-	-	-	0.24	-	0.004	<0.0002	<0.001	0.02	-	<0.001	-	0.11	<0.0001	0.007	0.041	0.9
GASW_BH25A	GASW_BH25A	17/08/2020	Normal	738860	7.1	290	150	-	0.05	<10	170	-	-	-	56	-	<5	-	<5	-	15	-	12	71	-	-	-	-	<0.01	<0.02	0.006	<0.0002	<0.001	0.052	-	0.002	-	0.078	0.0002	0.012	0.094	0.48
GASW_BH25A	GASW_BH25A	16/09/2020	Normal	744463	7.9	340	520	-	0.082	<10	230	<20	230	210	75	-	<5	-	<5	-	20	-	14	41	-	-	-	-	0.41	-	0.009	<0.0002	<0.001	<0.001	-	<0.001	-	0.052	0.0003	<0.001	<0.005	0.2
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	7.3	360	13	-	0.004	<10	140	<20	140	360	130	-	11	-	4.7	-	23	-	27	380	-	-	-	-	0.14	-	0.002	<0.0002	<0.001	0.052	-	0.001	-	0.3	<0.0001	0.01	0.097	2
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	7.4	390	1900	-	0.031	<10	210	-	-	400	140	-	11	-	9.8	-	21	-	62	110	-	-	-	-	<0.01	<0.02	0.008	<0.0002	<0.001	0.007	-	<0.001	-	0.24	<0.0001	<0.001	<0.005	3.4
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	7.5	510	39	-	0.01	<10	200	-	-	-	130	-	9.9	-	4.9	-	23	-	20	240	-	-	-	-	0.24	<0.02	0.003	<0.0002	<0.001	0.005	-	<0.001	0.28	-	<0.0001	0.011	0.072	3.2
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	8.2	290	57	-	<0.004	<10	120	<20	120	160	50	-	<5	-	5.4	-	29	-	67	60	-	-	-	-	<0.01	-	0.003	<0.0002	0.001	0.015	-	<0.001	-	0.006	<0.0001	0.001	0.017	<0.05
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	7.6	180	9.8	-	<0.004	<10	120	<20	120	110	39	-	3.4	-	3.8	-	21	-	28	34	-	-	-	-	<0.01	-	0.003	<0.0002	<0.001	0.15	0.51	0.001	0.013	-	<0.0001	0.053	0.067	<0.5
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	7.8	160	41	-	<0.004	<10	1900	<20	1900	130	47	-	3.9	-	3.6	-	18	-	26	41	-	-	-	-	0.11	-	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.012	<0.0001	<0.001	0.017	<0.05
GASW_BH7	GASW_BH7	5/06/2019	Normal	659250	5.6	310	28	-	<0.005	<10	35	<20	35	-	27	-	5.1	-	1.2	-	61	-	38	140	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.3	<0.0001	0.002	0.039	5.4
QC01	GASW_BH7	5/06/2019	Interlab_D	ES1917381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0001	0.001	<0.001	-	<0.001	-	-	<0.0001	0.002	0.04	-
GASW_BH7	GASW_BH7	30/07/2019	Normal	669059	3.9	280	20	-	0.006	<10	<20	-	-	-	5.4	-	4.8	-	0.8	-	63	-	41	150	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.007	-	0.001	-	0.12	<0.0001	0.003	0.059	17
GASW_BH7	GASW_BH7	28/08/2019	Normal	674722	3.5	330	14	-	<0.005	<10	<20	-	-	-	3.7	-	4.8	-	0.7	-	64	-	29	150	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.019	-	0.002	-	0.13	<0.0001	0.006	0.078	19
GASW_BH7	GASW_BH7	25/09/2019	Normal	679636	3.5	260	27	-	<0.005	<10	<20	-	-	-	4.3	-	4.2	-	0.5	-	69	-	35	160	-	-	-	-	0.02	0.05	<0.001	<0.0002	<0.001	0.007	-	0.003	-	0.11	<0.0001	0.002	0.064	12
GASW_BH7	GASW_BH7	16/10/2019	Normal	683453	3.6	310	19	-	<0.005	<10	<20	-	-	-	2.7	-	4.3	-	0.5	-	63	-	49	160	-	-	-	-	0.03	<0.02	<0.001	<0.0002	<0.001	0.004	-	0.003	-	0.11	<0.0001	0.002	0.033	14
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	4	280	8.3	-	<0.005	<10	<20	-	-	-	2.7	-	4.2	-	0.6	-	65	-	28	150	-	-	-	-	0.02	0.04	<0.001	<0.0002	<0.001	0.003	-	0.002	-	0.098	<0.0001	0.002	0.036	16
GASW_BH7	GASW_BH7	16/12/2019	Normal	694466	3.5	260	18	-	<0.004	<10	<20	-	-	-	3.1	-	3.4	-	0.6	-	47	-	68	150	-	-	-	-	0.04	<0.02	<0.001	<0.0002	<0.001	0.008	-	0.002	-	0.081	<0.0001	0.004	0.063	14
GASW_BH7	GASW_BH7	22/01/2020	Normal	698379	3.7	550	33	-	<0.004	<10	<20	-	-	-	3.8	-	3.9	-	0.6	-	57	-	100	150	-	-	-	-	0.04	<0.02	<0.001	<0.0002	<0.001	0.009	-	0.003	-	0.1	<0.0001	0.001	0.041	12
GASW_BH7	GASW_BH7	24/02/2020	Normal	704673	3.8	340	28	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.14	<0.0001	<0.001	0.018	18
GASW_BH7	GASW_BH7	24/02/2020	Normal	706746	-	-	-	-	-	<10	<20	-	-	-	<5	-	5.1	-	<5	-	60	-	40	140	-	-	-	-	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	17/03/2020	Normal	708508	3.9	180	67	-	0.005	<10	<20	-	-	-	1.8	-	5.1	-	1	-	54	-	25	110	-	-	-	-	0.09	<0.02	<0.001	<0.0002	<0.001	0.012	-	0.004	-	0.13	<0.0001	0.003	0.018	1.3
SRT-BH039	SRT_BH039	7/09/2018	Normal	616629	-	-	-	-	0.007	80	<20	-	-	-	460	-	<0.5	-	160	-	140	-	28	940	-	-	-	-	0.7	1.3	<0.001	<0.0002	0.003	0.03	-	0.003	-	-	<0.0001	0.004	0.047	-
QA02	SRT_BH039	7/09/2018	Interlab_D	ES1826658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	0.003	0.014	-	<0.001	-	-	<0.0001	0.002	0.013	-
SRT-BH039	SRT_BH039	25/10/2018	Normal	624838	-	-	-	-	<0.005	70	<20	-	-	-	460	-	<0.5	-	110	-	98	-	45	720	-	-	-	-	1	0.05	<0.001	<0.0002	0.001	0.008	-	<0.001	-	<0.005	<0.0001	0.006	0.027	<0.05
QA02	SRT_BH039	26/10/2018	Interlab_D	ES1832040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	0.001	0.002	-	<0.001	-	-	<0.0001	0.002	<0.005	-
SRT-BH047	SRT_BH047	6/09/2018	Normal	616629	-	-	-	-	<0.005	<10	140	-	-	-	64	-	8.1	-	1	-	34	-	27	7.6	-	-	-	-	<0.01	21	<0.001	<0.0002	<0.001	0.018	-	<0.001	-	-	<0.0001	0.003	0.021	-
SRT-BH047	SRT_BH047	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	160	-	-	-	58	-	6.1	-	0.9	-	32	-	25	14	-	-	-	-	<0.01	18	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	<0.005	<0.0001	<0.001	0.005	<0.05
SRT_BH047	SRT_BH047	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	170	-	-	-	53	-	6.9	-	0.9	-	31	-	39	12	-	-	-	-	<0.01	17	<0.001	<0.0002	<0.001	0.022	-	0.002	-	-	<0.0001	0.005	0.039	-
SRT_BH047	SRT_BH047	18/12/2018	Normal	634274	-	-	-	-	<0.005	<10	63	-	-	-	35	-	8	-	1.6	-	31	-	33	16	-	-	-	-	<0.01	22	<0.001	<0.0002	<0.001	0.021	-	0.002	-	0.009	<0.0001	0.004	0.031	0.06
SRT_BH047	SRT_BH047	17/01/2019	Normal	636542	-	-	-	-	0.02	<10	190	-	-	-	61	-	6.8	-	0.9	-	29	-	23	11	-	-	-	-	<0.01	19	<0.001	<0.0002	<0.001	0.016	-	0.001	-	<0.005	<0.0001	0.005	0.053	0.05
SRT_BH047	SRT_BH047	20/02/2019	Normal	641720	-	-	-	-	<0.005	<10	100	-	-	-	26	-	6.6	-	1.3	-	53	-	26	12	-	-	-	-	<0.01	19	<0.001	<0.0002	<0.001	0.018	-	0.002	-	0.008	<0.0001	0.002	0.013	<0.05
SRT_BH047	SRT_BH047	16/04/2019	Normal	651825	-	-	-	-	<0.005	<10	62	-	-	-	24	-	9.6	-	1.8	-	37	-	33	15	-	-	-	-	<0.01	25	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.023	<0.0001	0.001	0.013	<0.5
SRT_BH047	SRT_BH047	14/05/2019	Normal	656080	8.1	360	40	-	<0.005	<10	120	-	-	-	51	-	9.7	-	1.2	-	34	-	43	11	-	-	-	-	<0.01	23	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH047	SRT_BH047	7/06/2019	Normal	660130	8	230	48	-	<0.005	<10	98	-	-	-	37	-	10	-	1.1	-	35	-	26	11	-	-	-	-	<0.01	23	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.5
SRT-BH047	SRT_BH047	31/07/2019	Normal	669059	7.6	270	65	-	0.008	<10	88	-	-	-	43	-	11	-	1.6	-	35	-	50	13	-	-	-	-	<0.01	22	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.018	<0.0001	0.001	0.009	<0.05
SRT_BH047	SRT_BH047	30/08/2019	Normal	674722	8.1	360	51	-	<0.005	<10	120	-	-	-	50	-	8.6	-	0.9	-	33	-	22	10	-	-	-	-	<0.01	22	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	<0.005	<0.0001	<0.001	0.008	<0.05
SRT_BH047	SRT_BH047	27/09/2019	Normal	679636	7.7	270	22	-	<0.005	<10	140	-	-	-	51	-	8	-	0.8	-	31	-	25	11	-	-	-	-	<0.01	21	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH047	SRT_BH047	18/10/2019	Normal	683453	7.8	340	68	-	<0.005	<10	92	-	-	-	50	-	7.4	-	0.8	-	30	-	34	11	-	-	-	-	<0.01	15	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	0.002	<0.005	0.06
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	8.3	330	89	-	<0.005	<10	120	-	-	-	54	-	8.8	-	1	-	32	-	52	9.5	-	-	-	-	<0.01	21	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	0.001	<0.005	<0.05
SRT_BH047	SRT_BH047	18/12/2019	Normal	694466	8.3	290	100	-	<0.004	<10	130	-	-	-	49	-	9.2	-	0.9	-	16	-	46	12	-	-	-	-	0.02	19	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH047	SRT_BH047	20/01/2020	Normal	698379	7.7	340	1700	-	<0.004	<10	240	-	-	-	49	-	9.7	-	0.8	-	26	-	60	11	-	-	-	-	0.03	22	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH047	SRT_BH047	26/02/2020	Normal	704673	7.7	170	<1	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	0.024	<0.0001	0.002	0.022	<0.05

	Inorganics			Cyanide		Acidity & Alkalinity					Major Ions														Nutrients		Metals														Iron speciation
	pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)					0.8															5000	5000					112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																							
2-4m																																							
4-8m																																							
>8m																																							
NEPM 2013 Table 1C GILs, Marine Waters					0.004																				0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																																					
SRT_BH047	SRT_BH047	26/02/2020	Normal	706746	-	-	-	-	-	<10	49	-	-	-	19	-	9.5	-	<5	-	26	-	83	27	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	16/03/2020	Normal	708508	7	230	14	-	<0.004	<10	60	-	-	-	29	-	9.6	-	1.4	-	29	-	25	15	-	-	-	-	0.11	22	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.009	<0.0001	0.002	0.011	<0.5
SRT_BH047	SRT_BH047	15/04/2020	Normal	714027	6.5	320	9.2	-	<0.004	<10	130	-	-	-	46	-	11	-	1	-	38	-	64	11	-	-	-	-	0.03	20	<0.001	<0.0002	<0.001	0.011	-	<0.001	-	0.006	<0.0001	0.007	0.036	<0.05
SRT_BH047	SRT_BH047	18/05/2020	Normal	720682	6.9	210	13	-	<0.004	<10	110	-	-	-	36	-	12	-	<5	-	30	-	22	13	-	-	-	-	0.02	21	<0.01	<0.002	<0.01	<0.01	-	<0.01	-	<0.05	<0.001	<0.01	<0.05	0.16
SRT_BH047	SRT_BH047	17/06/2020	Normal	726825	6.9	230	9.2	-	<0.004	<10	85	-	-	-	34	-	10	-	<5	-	28	-	24	13	-	-	-	-	<0.01	20	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.009	<0.0001	0.003	0.015	<0.05
SRT_BH047	SRT_BH047	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/07/2020	Normal	732590	7.5	320	6.2	-	<0.004	<10	120	<20	120	-	44	-	10	-	0.9	-	29	-	25	16	-	-	-	-	0.24	-	<0.001	<0.0002	<0.001	0.009	-	<0.001	-	<0.005	<0.0001	0.009	0.049	<0.5
SRT_BH047	SRT_BH047	19/08/2020	Normal	738860	7.6	290	33	-	<0.004	<10	120	-	-	-	35	-	8	-	<5	-	22	-	22	11	-	-	-	-	<0.01	18	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	0.004	0.02	<0.05
SRT_BH047	SRT_BH047	15/09/2020	Normal	744463	7.9	290	49	-	<0.004	<10	95	<20	95	150	43	-	9.7	-	<5	-	27	-	22	10	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.008	-	<0.001	-	<0.005	<0.0001	0.002	0.02	<0.05
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	7.6	200	14	-	<0.004	<10	96	<20	96	150	42	-	11	-	0.8	-	30	-	41	47	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.11	-	0.002	-	0.007	<0.0001	0.013	0.12	<0.5
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	6.9	260	48	-	<0.004	<10	80	-	-	120	27	-	12	-	<5	-	28	-	57	15	-	-	-	-	<0.01	19	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.53	<0.0001	0.002	<0.005	<0.5
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	7.3	220	65	-	<0.004	<10	82	-	-	-	31	-	10	-	1.1	-	27	-	24	14	-	-	-	-	0.01	19	<0.001	<0.0002	<0.001	0.003	-	<0.001	0.11	-	<0.0001	0.003	0.019	<0.5
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	7.4	300	36	-	<0.004	<10	78	<20	78	120	32	-	11	-	<5	-	29	-	43	29	-	-	-	-	0.02	-	<0.001	<0.0002	<0.001	0.024	-	<0.001	-	0.013	<0.0001	0.005	0.11	<0.05
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	6.2	110	<5	-	<0.004	<10	21	<20	21	60	11	-	7.7	-	0.8	-	24	-	37	14	-	-	-	-	0.19	-	<0.001	<0.0002	<0.001	0.15	0.06	0.002	0.028	-	<0.0001	0.014	0.1	<0.5
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	6.7	190	97	-	<0.004	<10	1200	<20	1200	62	11	-	8.7	-	0.8	-	25	-	84	28	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.023	<0.0001	0.005	0.044	<0.05
SRT-BH048	SRT_BH048	6/09/2018	Normal	616629	-	-	-	-	<0.005	<10	130	-	-	-	19	-	6.2	-	2.7	-	56	-	34	47	-	-	-	-	<0.01	0.09	<0.001	<0.0002	<0.001	0.045	-	0.004	-	-	<0.0001	0.011	0.066	-
SRT-BH048	SRT_BH048	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	<20	-	-	-	3.7	-	1.8	-	1.6	-	39	-	34	48	-	-	-	-	<0.01	0.12	<0.001	<0.0002	<0.001	0.13	-	0.006	-	0.55	<0.0001	0.017	0.18	<0.05
SRT_BH048	SRT_BH048	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	27	-	-	-	5.2	-	2.5	-	1.6	-	36	-	51	49	-	-	-	-	<0.01	0.1	<0.001	<0.0002	<0.001	0.045	-	0.005	-	-	<0.0001	0.011	0.086	-
SRT_BH050	SRT_BH050	16/03/2020	Normal	708508	5.6	270	210	-	0.006	<10	<20	-	-	-	17	-	3.1	-	6.1	-	13	-	10	48	-	-	-	-	0.08	7.1	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.022	<0.0001	0.002	0.01	<0.5
SRT_BH050	SRT_BH050	15/04/2020	Normal	714027	3.9	130	480	-	<0.004	<10	<20	-	-	-	18	-	2.5	-	7.2	-	17	-	52	45	-	-	-	-	0.04	0.26	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.024	<0.0001	0.001	0.012	<0.05
SRT_BH050	SRT_BH050	17/06/2020	Normal	726825	4.2	140	370	-	<0.004	<10	<20	-	-	-	14	-	<5	-	5.1	-	13	-	11	44	-	-	-	-	0.02	7.2	<0.001	<0.0002	<0.001	0.011	-	<0.001	-	0.023	<0.0001	0.007	0.052	<0.05
SRT_BH050	SRT_BH050	17/07/2020	Normal	732590	-	-	-	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.02	-	<0.001	<0.0002	<0.001	0.091	-	0.002	-	0.021	<0.0001	0.01	0.078	<0.5
SRT_BH050	SRT_BH050	19/08/2020	Normal	738860	-	-	-	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.009	-	<0.001	-	0.025	<0.0001	0.002	0.013	<0.05
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.11	-	0.018	-	0.026	<0.0001	0.01	0.15	<0.5
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	-	140	11,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.15	-	0.003	-	0.022	<0.0001	0.012	0.13	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	5.2	-	-	-	<0.004	<10	<20	<20	<20	75	23	-	4.4	-	11	-	11	-	25	41	-	-	-	-	0.16	-	<0.001	<0.0002	<0.001	0.008	190	<0.001	0.067	-	<0.0001	0.003	0.008	<0.5
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	5.2	-	-	-	<0.004	<10	250	<20	250	50	15	-	3.1	-	5.2	-	13	-	49	56	-	-	-	-	0.41	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.022	<0.0001	0.002	0.01	<0.05
SRT-BH052	SRT_BH052	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	38	-	-	-	14	-	3.7	-	1	-	41	-	22	20	-	-	-	-	<0.01	10	<0.001	<0.0002	<0.001	0.063	-	0.005	-	0.036	<0.0001	0.008	0.086	<0.05
SRT_BH052	SRT_BH052	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	73	-	-	-	18	-	3.7	-	1	-	40	-	41	27	-	-	-	-	<0.01	9.2	<0.001	<0.0002	<0.001	0.022	-	0.003	-	-	<0.0001	0.006	0.085	-
SRT_BH052	SRT_BH052	18/12/2018	Normal	634274	-	-	-	-	<0.005	<10	35	-	-	-	17	-	4.1	-	1.1	-	38	-	43	18	-	-	-	-	<0.01	10	<0.001	<0.0002	<0.001	0.018	-	0.001	-	0.02	<0.0001	0.004	0.023	<0.05
SRT_BH052	SRT_BH052	17/01/2019	Normal	636542	-	-	-	-	0.02	<10	47	-	-	-	18	-	4.5	-	1	-	39	-	42	27	-	-	-	-	<0.01	9.1	<0.001	<0.0002	<0.001	0.32	-	0.019	-	0.029	<0.0001	0.013	0.44	<0.05
SRT_BH052	SRT_BH052	20/02/2019	Normal	641720	-	-	-	-	<0.005	61	130	-	-	-	14	-	3.6	-	1.6	-	60	-	42	28	-	-	-	-	<0.01	6.2	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.006	<0.0001	<0.001	0.006	<0.05
SRT_BH052	SRT_BH052	16/04/2019	Normal	651825	-	-	-	-	<0.005	90	140	-	-	-	3	-	1.5	-	1.7	-	130	-	45	21	-	-	-	-	<0.01	5.2	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.005	<0.0001	<0.001	<0.005	<0.5
SRT_BH052	SRT_BH052	14/05/2019	Normal	656080	7.7	230	110	-	<0.005	<10	90	-	-	-	23	-	5.2	-	1.5	-	47	-	56	26	-	-	-	-	<0.01	8.3	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH052	SRT_BH052	7/06/2019	Normal	660130	8.1	250	550	-	<0.005	<10	140	-	-	-	37	-	6.9	-	1.3	-	48	-	39	29	-	-	-	-	<0.01	6.4	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.5
SRT-BH052	SRT_BH052	31/07/2019	Normal	669059	7.6	270	100	-	0.006	<10	110	-	-	-	30	-	6.3	-	1.6	-	47	-	42	29	-	-	-	-	<0.01	6.9	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	0.001	0.015	<0.05
SRT_BH052	SRT_BH052	30/08/2019	Normal	674722	7.8	330	160	-	<0.005	<10	110	-	-	-	36	-	6.8	-	1.8	-	45	-	38	30	-	-	-	-	<0.01	6.7	<0.001	<0.0002	0.002	0.003	-	<0.001	-	<0.005	<0.0001	<0.001	0.01	<0.05
SRT_BH052	SRT_BH052	27/09/2019	Normal	679636	7.8	250	58	-	<0.005	<10	140	-	-	-	26	-	5.7	-	1.2	-	41	-	38	33	-	-	-	-	<0.01	6.8	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	0.007	<0.05
SRT_BH052	SRT_BH052	18/10/2019	Normal	683453	7.6	280	65	-	<0.005	<10	78	-	-	-	37	-	3	-	1.3	-	40	-	39	26	-	-	-	-	<0.01	5.9	0.002	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	0.002	<0.005	0.07
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	7.6	240	64	-	<0.005	<10	78	-	-	-	23	-	4.5	-	1.5	-	43	-	49	31	-	-	-	-	<0.01	6.9	<0.001	<0.0002	<0.001	0.018	-	0.002	-	<0.005	<0.0001	0.006	0.035	<0.05
SRT_BH052	SRT_BH052	18/12/2019	Normal	694466	8.3	280	85	-	<0.004	<10	140	-	-	-	30	-	4.8	-	1.7	-	27	-	83	36	-	-	-	-	0.01	4.4	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	0.06
SRT_BH052	SRT_BH052	20/01/2020	Normal	698379	6.9	270	54	-	<0.004	<10	81	-	-	-	49	-	5.1	-	1.5	-	37	-	78	35	-	-	-	-	0.02	5.6	0.003	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	0.16
SRT_BH052	SRT_BH052	26/02/2020	Normal	704673	7.5	170	110	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	0.014	<0.0001	<0.001	0.007	<0.05
SRT_BH052	SRT_BH052	26/02/2020	Normal	706746	-	-	-	-	-	<10	28	-	-	-	9.3	-	<5	-	<5	-	37	-	96	17	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	16/03/2020	Normal	708508	6.2	100	210	-	0.005	<10	28	-	-	-	8.7	-	4.1	-	2	-	38	-	35	15	-	-	-	-	0.07	11	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.012	<0.0001	0.002	0.005	<0.5
SRT_BH052	SRT_BH052	15/04/2020	Normal	714027	7.8	210	120	-	<0.004	<10	61	-	-	-	13	-	3.3	-	0.9	-	49	-	52	15	-	-	-	-	0.03	<0.1	<0.001	<0.0002	<0.001	0.012	-	<0.001	-	0.008	<0.0001	0.003	0.037	<0.05
SRT_BH052	SRT_BH052	18/05/2020	Normal	720682	6.5	260	210	-	<0.004	<10	75	-	-	-	29	-	<5	-	<5	-	50	-	40	30	-	-	-	-	<0.01	8.4	<0.01	<0.002	<0.01	<0.01	-	<0.01	-	0.14	<0.001	<0.01	<0.05	<0.05
SRT_BH052	SRT_BH052	17/06/2020	Normal	726825	7.8	220	2000	-	<0.004	<10	260	-	-	-	25	-	5.7	-	<5	-	45	-	41	29	-	-	-	-	<0.01	8.7	<0.001	<0.0002	<0.001	0.017	-	0.001	-	0.008	<0.0001	0.015	0.084	<0.05
SRT_BH052	SRT_BH052	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/07/2020	Normal	732590	6.7	270	110	-	<0.004	<10	74	<20	74	-	19	-	4.9	-	2.3	-	50	-	45	34	-	-	-	-	0.16	-	<0.001	<0.0002	0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.5
SRT_BH052	SRT_BH052	19/08/2020	Normal	738860	6.4	200	99	-	<0.004	<10	37	-	-	-	9.7	-	<5	-	<5	-	32	-	38	18	-	-	-	-	<0.01	10	<0.001	<0.0002	<0.001	0.12	-	0.002	-	0.012	<0.0001	0.011	0.1	<0.05
SRT_BH052	SRT_BH052	15/09/2020	Normal	744463	7.6	270	1100	-	<0.004	<10	86	<20	86	74	24	-	<5	-	<5	-	44	-	45	35	-	-	-	-	0.01	-	<0.001	<0.0002	<0.001	0.007	-	<0.001	-	<0.005	<0.0001	<0.001	0.008	<0.05
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	6.9	190	310	-	<0.004	<10	71	<20	71	90	26	-	6	-	3.2	-	56	-	69	56	-	-	-	-	0.04	-	<0.001	<0.0002	<0.001	0.069	-	0.002	-	0.005	<0.0001	0.01	0.093	<0.5
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	6.7	210	260	-	<0.004	<10	56	-	-	65	18	-	5.1	-	<5	-	48	-	80	30	-	-	-	-	<0.01	8	0.001	<0.0002	<0.001	0.005	-	<0.001	-	<0.005	<0.0001	<0.001	0.018	<0.5
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	6.9	250	89	-	<0.004	<10	75	-	-	-	21	-	4.8	-	2.1	-	49	-	50	34	-	-	-	-	<0.01	7	<0.001	<0.0002	<0.001	<0.001	-	<0.001	0.052	-	<0.0001	<0.001	<0.005	<0.5
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	7.6	250	830	-	<0.004	<10	110	<20	110	81	24	-	<5	-	<5	-	50	-	46	55	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	<0.001	0.027	<0.05
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	6.3	130	150	-	<0.004	<10	37	<20	37	35	7.9	-	3.7	-	1.8	-	39	-	49	26	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.016	1.6	<0.001	0.051	-	<0.0001	0.002	<0.005	<0.5
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	7.1	180	370	-	<0.004	<10	1400	<20	1400	52	13	-	4.5	-	1.4	-	43	-	42	33	-	-	-	-	0.12	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	0.006	<0.05
SRT-BH053	SRT_BH053	6/09/2018	Normal	616629	-	-	-	-	<0.005	<10	72	-	-	-	6.3	-	6.1	-	2.6	-	37	-	32	28	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.23	-	0.014	-	-	<0.0001	0.029	0.32	-
SRT-BH053	SRT_BH053	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	52	-	-	-	5.1	-	4.9	-	2.5	-	33	-	26	27	-	-	-	-	<0.01	0.39	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	1	<0.0001	0.046	0.022	<0.05
SRT-BH059	SRT_BH059	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	180	-	-	-	63	-	7.9	-	6.6	-	12	-	13	17	-	-	-	-	<0.01	3.5	<0.001	<0.0002	0.001	0.018	-	0.002	-	<0.005	<0.0001	0.004	0.027	<0.05
SRT_BH059	SRT_BH059	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	210	-	-	-	58	-	7.4	-	5.5	-	9	-	34	13	-	-	-	-	<0.01	2.3	<0.001	<0.0002	0.001	0.042	-	0.003	-	-	<0.0001	0.008	0.077	-
SRT_BH059	SRT_BH059	17/12/2018	Normal	634274	-	-	-	-	<0.005	<10	170	-	-	-	70	-	5.7	-	7.6	-	11	-	10	24	-	-	-	-	<0.01	7.9	<0.001	<0.0002	<0.001	0.056	-	0.003	-	<0.005	<0.0001	0.007	0.053	0.8
SRT_BH059	SRT_BH059	18/01/2019	Normal	636542	-	-	-	-	0.017	<10	170	-	-	-	64	-	6.1	-	5.9	-	9.5	-	8.1	13	-	-	-	-	<0.01	2.8	<0.001	<0.0002	<0.001	0.04	-	0.002	-	<0.005	<0.0001	0.007	0.054	<0.05
SRT_BH059	SRT_BH059	20/02/2019	Normal	641720	-	-	-	-	<0.005	<10	170	-	-	-	69	-	7.7	-	6.7	-	14	-	11	12	-	-	-	-	<0.01	2.5	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05

					Inorganics			Cyanide		Acidity & Alkalinity					Major Ions														Nutrients		Metals																	Iron speciation
					pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
					pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)									0.8															5000	5000			112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																									
2-4m																																									
4-8m																																									
>8m																																									
NEPM 2013 Table 1C GILs, Marine Waters									0.004																			0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																																									
SRT_BH059	SRT_BH059	17/04/2019	Normal	651825	-	-	-	-	<0.005	<10	200	-	-	-	49	-	6	-	5.8	-	8.2	-	9.7	15	-	-	-	-	<0.01	2.5	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.5
SRT_BH059	SRT_BH059	15/05/2019	Normal	656080	8.1	270	21	-	<0.005	<10	210	-	-	-	65	-	6.9	-	7.1	-	11	-	22	27	-	-	-	-	<0.01	3.2	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH059	SRT_BH059	7/06/2019	Normal	660130	7.7	230	8.9	-	<0.005	<10	210	-	-	-	72	-	7.4	-	9	-	13	-	18	18	-	-	-	-	<0.01	5.2	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.5
SRT-BH059	SRT_BH059	31/07/2019	Normal	669059	7.8	270	8.3	-	<0.005	<10	200	-	-	-	62	-	9.4	-	6.6	-	13	-	26	17	-	-	-	-	<0.01	3.1	<0.001	<0.0002	0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH059	SRT_BH059	30/08/2019	Normal	674722	7.9	290	13	-	<0.005	<10	170	-	-	-	60	-	6.4	-	6.7	-	11	-	8	15	-	-	-	-	<0.01	3.5	<0.001	<0.0002	0.001	0.028	-	0.001	-	<0.005	<0.0001	0.012	0.12	<0.05
SRT_BH059	SRT_BH059	27/09/2019	Normal	679636	8	200	120	-	<0.005	<10	190	-	-	-	60	-	6.6	-	5.7	-	11	-	10	13	-	-	-	-	<0.01	3.2	<0.001	<0.0002	<0.001	0.007	-	<0.001	-	<0.005	<0.0001	<0.001	0.008	<0.05
SRT_BH059	SRT_BH059	18/10/2019	Normal	683453	8.1	250	4.9	-	<0.005	<10	170	-	-	-	59	-	6	-	5.9	-	10	-	22	11	-	-	-	-	<0.01	2.4	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	0.06
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	8	270	3.6	-	<0.005	<10	180	-	-	-	61	-	8.2	-	6.1	-	11	-	43	14	-	-	-	-	<0.01	2.1	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH059	SRT_BH059	18/12/2019	Normal	694466	7.9	260	15	-	<0.004	<10	210	-	-	-	56	-	8	-	6.6	-	15	-	12	13	-	-	-	-	0.02	1.9	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	<0.001	0.005	0.08
SRT_BH059	SRT_BH059	20/01/2020	Normal	698379	6.4	220	7.5	-	<0.004	<10	180	-	-	-	63	-	6.3	-	7.6	-	7.8	-	59	20	-	-	-	-	<0.01	6.1	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH059	SRT_BH059	26/02/2020	Normal	704673	8.2	170	1.8	-	<0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	<0.001	<0.0002	<0.001	0.027	-	<0.001	-	<0.005	<0.0001	0.005	0.054	0.09
SRT_BH059	SRT_BH059	26/02/2020	Normal	706746	-	-	-	-	-	<10	170	-	-	-	57	-	5.4	-	7.4	-	10	-	22	27	-	-	-	-	-	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	16/03/2020	Normal	708508	7	180	20	-	0.005	<10	150	-	-	-	52	-	5.2	-	7.3	-	9.7	-	9.5	12	-	-	-	-	0.02	2.3	0.001	<0.0002	<0.001	0.009	-	<0.001	-	<0.005	<0.0001	0.006	0.042	<0.5
SRT_BH059	SRT_BH059	15/04/2020	Normal	714027	6.7	210	31	-	<0.004	<10	180	-	-	-	69	-	6.5	-	8.5	-	12	-	57	5.9	-	-	-	-	0.05	1.4	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH059	SRT_BH059	18/05/2020	Normal	720682	7.2	140	34	-	<0.004	<10	320	-	-	-	59	-	9.8	-	7.3	-	15	-	7	14	-	-	-	-	<0.01	1.9	<0.01	<0.002	<0.01	0.012	-	<0.01	-	0.54	<0.001	<0.01	<0.05	0.05
SRT_BH059	SRT_BH059	17/06/2020	Normal	726825	7.6	270	210	-	0.004	<10	290	-	-	-	55	-	9.4	-	7	-	16	-	8.7	16	-	-	-	-	<0.01	1.8	<0.001	<0.0002	0.001	0.014	-	<0.001	-	<0.005	<0.0001	0.006	0.057	<0.05
SRT_BH059	SRT_BH059	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/07/2020	Normal	732590	7.3	330	41	-	<0.004	-	-	-	-	-	57	-	10	-	7.5	-	19	-	11	23	-	-	-	-	<0.01	-	<0.001	<0.0002	0.002	0.007	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.5
SRT_BH059	SRT_BH059	18/08/2020	Normal	738860	7.3	240	350	-	<0.004	<10	210	-	-	-	44	-	8.1	-	5.6	-	13	-	9.2	22	-	-	-	-	<0.01	1.4	<0.001	<0.0002	0.002	0.01	-	<0.001	-	<0.005	<0.0001	<0.001	<0.005	<0.05
SRT_BH059	SRT_BH059	15/09/2020	Normal	744463	7.8	250	970	-	<0.004	<10	180	<20	180	160	50	-	8.7	-	5.7	-	17	-	7.5	21	-	-	-	-	0.01	-	<0.001	<0.0002	<0.001	0.13	-	0.002	-	0.008	<0.0001	0.011	0.13	0.06
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	7.6	230	690	-	<0.004	<10	200	<20	200	390	120	-	20	-	7.9	-	19	-	14	44	-	-	-	-	0.04	-	<0.001	<0.0002	0.002	0.009	-	<0.001	-	<0.005	<0.0001	<0.001	0.006	<0.5
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	7.9	240	220	-	<0.004	<10	150	-	-	160	51	-	8	-	6.7	-	18	-	44	27	-	-	-	-	<0.01	1.8	0.001	<0.0002	0.002	0.014	-	<0.001	-	<0.005	<0.0001	0.006	0.011	<0.5
SRT_BH060	SRT_BH060	16/03/2020	Normal	708508	7.4	270	370	-	0.007	<10	32	-	-	-	41	-	2.7	-	5.9	-	12	-	31	30	-	-	-	-	0.05	4.1	0.001	<0.0002	<0.001	0.024	-	<0.001	-	0.01	<0.0001	0.008	0.055	<0.5
SRT_BH060	SRT_BH060	15/04/2020	Normal	714027	8	280	34,000	-	<0.004	-	-	-	-	-	38	-	2.3	-	9.6	-	18	-	73	39	-	-	-	-	0.04	7	<0.001	<0.0002	<0.001	0.008	-	<0.001	-	0.009	<0.0001	0.006	0.025	<0.05
SRT-BH063	SRT_BH063	6/09/2018	Normal	616629	-	-	-	-	<0.005	<10	330	-	-	-	66	-	38	-	5.8	-	82	-	72	45	-	-	-	-	<0.01	0.15	<0.001	<0.0002	<0.001	0.014	-	<0.001	-	-	<0.0001	0.02	0.22	-
SRT-BH063	SRT_BH063	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	270	-	-	-	50	-	30	-	5.5	-	68	-	53	53	-	-	-	-	<0.01	0.09	<0.001	<0.0002	<0.001	0.12	-	0.005	-	0.049	<0.0001	0.083	0.21	<0.05
SRT_BH063	SRT_BH063	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	320	-	-	-	48	-	31	-	5	-	63	-	68	52	-	-	-	-	<0.01	0.1	<0.001	<0.0002	<0.001	0.027	-	0.003	-	-	<0.0001	0.014	0.067	-
QA02	SRT_BH063	27/11/2018	Interlab_D	ES1835581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.002	-	<0.001	-	-	<0.0001	0.008	0.016	-
SRT_BH063	SRT_BH063	17/12/2018	Normal	634274	-	-	-	-	<0.005	<10	290	-	-	-	58	-	33	-	6.4	-	75	-	76	56	-	-	-	-	<0.01	0.24	<0.001	<0.0002	<0.001	0.003	-	0.005	-	<0.005	<0.0001	0.005	0.019	0.39
QA01	SRT_BH063	17/12/2018	Field_D	634274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.002	-	0.003	-	-	<0.0001	0.004	0.015	-
SRT_BH063	SRT_BH063	17/01/2019	Normal	636542	-	-	-	-	0.018	<10	290	-	-	-	57	-	32	-	5.4	-	70	-	68	52	-	-	-	-	<0.01	0.13	<0.001	<0.0002	<0.001	0.047	-	0.003	-	0.011	<0.0001	0.013	0.11	0.05
QA01	SRT_BH063	17/01/2019	Field_D	636542	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.004	-	<0.001	-	-	<0.0001	0.004	0.023	-
SRT_BH063	SRT_BH063	21/02/2019	Normal	641720	-	-	-	-	<0.005	<10	250	-	-	-	51	-	33	-	5.8	-	73	-	71	61	-	-	-	-	<0.01	0.13	<0.001	<0.0002	<0.001	0.029	-	0.002	-	0.009	<0.0001	0.01	0.034	0.05
QA02	SRT_BH063	21/02/2019	Interlab_D	ES1905610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	<0.0001	0.001	0.004	-	<0.001	-	-	<0.0001	0.007	0.005	-
SRT_BH063	SRT_BH063	18/04/2019	Normal	651825	-	-	-	-	<0.005	<10	310	-	-	-	54	-	36	-	6.1	-	70	-	74	58	-	-	-	-	<0.01	0.1	<0.001	<0.0002	<0.001	0.055	-	0.003	-	0.006	<0.0001	0.018	0.085	<0.5
SRT_BH063	SRT_BH063	15/05/2019	Normal	656080	8.2	460	20	-	<0.005	<10	340	-	-	-	50	-	33	-	5.7	-	62	-	89	49	-	-	-	-	<0.01	<0.02	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	<0.005	<0.0001	0.005	0.014	<0.05
SRT_BH063	SRT_BH063	7/06/2019	Normal	660130	7.4	360	41	-	<0.005	<10	310	-	-	-	55	-	30	-	6.8	-	71	-	77	48	-	-	-	-	<0.01	0.4	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	<0.005	<0.0001	0.006	0.036	<0.5
SRT-BH063	SRT_BH063	29/07/2019	Normal	669059	7	460	33	-	<0.005	<10	300	-	-	-	54	-	35	-	5.7	-	68	-	66	51	-	-	-	-	<0.01	0.07	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	<0.005	<0.0001	0.009	0.018	<0.05
SRT_BH063	SRT_BH063	28/08/2019	Normal	674722	7.8	470	56	-	<0.005	<10	310	-	-	-	55	-	35	-	5.8	-	68	-	66	50	-	-	-	-	<0.01	0.34	<0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.017	<0.0001	0.007	0.032	<0.05
SRT-BH064	SRT_BH064	6/09/2018	Normal	616629	-	-	-	-	0.028	34	46	-	-	-	5.7	-	0.7	-	18	-	63	-	23	58	-	-	-	-	<0.01	2.3	0.005	<0.0002	<0.001	0.024	-	0.002	-	-	<0.0001	0.006	0.032	-
SRT-BH082	SRT_BH082	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	<20	-	-	-	2.9	-	4	-	1.3	-	27	-	16	36	-	-	-	-	<0.01	0.34	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.054	<0.0001	0.001	0.009	0.16
QA01	SRT_BH082	25/10/2018	Field_D	624838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.001	0.009	-
SRT_BH082	SRT_BH082	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	<20	-	-	-	2.3	-	3.6	-	1.1	-	25	-	38	31	-	-	-	-	<0.01	0.36	<0.001	<0.0002	<0.001	0.007	-	0.002	-	-	<0.0001	0.002	0.021	-
QA01	SRT_BH082	26/11/2018	Field_D	629922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.073	-	0.013	-	-	<0.0001	0.01	0.17	-
SRT-CBH001	SRT_CBH001	6/09/2018	Normal	616629	-	-	-	-	<0.005	<10	22	-	-	-	8.7	-	6.8	-	1.8	-	24	-	17	34	-	-	-	-	<0.01	9.2	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	-	<0.0001	0.004	0.012	-
QA01	SRT_CBH001	6/09/2018	Field_D	616629	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.041	-	0.003	-	-	<0.0001	0.012	0.058	-
SRT-CBH001	SRT_CBH001	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	<20	-	-	-	5.9	-	4.4	-	1.6	-	24	-	17	32	-	-	-	-	<0.01	7.1	<0.001	<0.0002	<0.001	0.13	-	0.004	-	0.62	<0.0001	0.014	0.22	<0.05
SRT_CBH001	SRT_CBH001	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	<20	-	-	-	6.6	-	4.9	-	1.6	-	21	-	35	32	-	-	-	-	<0.01	7.8	<0.001	<0.0002	<0.001	0.042	-	0.003	-	-	<0.0001	0.012	0.094	-

					Inorganics			Cyanide		Acidity & Alkalinity					Major Ions														Nutrients		Metals																		Iron speciation
					pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (free)	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Calcium (Filtered)	Magnesium	Magnesium (Filtered)	Potassium	Potassium (Filtered)	Sodium	Sodium (Filtered)	Chloride	Sulfate	Sulfate (Filtered)	Cations Total	Anions Total	Ionic Balance	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	Ferrous Iron
					pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL					0.01	5	1	0.004	0.004	1	1	1	1	1	0.5	1	0.5	1	0.5	1	0.5	1	1	2	1	0.01	0.01	0.01	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005	0.05
ADWG 2011 Recreational (v3.6 updated 2021)									0.8															5000	5000			112.9	0.1	0.02		20		0.1	5	5	0.01	0.2		
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																									
2-4m																																									
4-8m																																									
>8m																																									
NEPM 2013 Table 1C GILs, Marine Waters									0.004																			0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																						
SRT-CBH007	SRT_CBH007	6/09/2018	Normal	616629	-	-	-	-	0.012	<10	<20	-	-	-	1.4	-	3	-	1.7	-	25	-	9.7	46	-	-	-	-	<0.01	1.9	<0.001	<0.0002	<0.001	0.36	-	0.023	-	-	<0.0001	0.02	0.48	-
SRT-CBH015	SRT_CBH015	7/09/2018	Normal	616629	-	-	-	-	<0.005	<10	32	-	-	-	4	-	5.7	-	3.8	-	27	-	11	79	-	-	-	-	<0.01	4.3	<0.001	<0.0002	<0.001	0.038	-	0.004	-	-	<0.0001	0.013	0.072	-
SRT-CBH015	SRT_CBH015	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	49	-	-	-	3.1	-	4.8	-	3.2	-	35	-	9.8	49	-	-	-	-	<0.01	2.7	<0.001	<0.0002	<0.001	0.034	-	0.004	-	5.2	<0.0001	0.016	0.073	<0.05
SRT_CBH015	SRT_CBH015	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	30	-	-	-	2.9	-	5.3	-	3.8	-	24	-	11	45	-	-	-	-	<0.01	3.5	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.009	0.02	-
SRT_CBH015	SRT_CBH015	17/12/2018	Normal	634274	-	-	-	-	<0.005	<10	33	-	-	-	3.4	-	5	-	3.6	-	28	-	12	52	-	-	-	-	<0.01	3.7	<0.001	<0.0002	<0.001	0.019	-	0.002	-	5.4	<0.0001	0.011	0.04	<0.05
QA02	SRT_CBH015	17/12/2018	Interlab_D	ES1838345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.01	0.024	-
SRT_CBH015	SRT_CBH015	18/01/2019	Normal	636542	-	-	-	-	0.019	<10	30	-	-	-	3.2	-	5.4	-	3.4	-	24	-	12	47	-	-	-	-	<0.01	3.1	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	6	<0.0001	0.009	0.022	0.05
QA02	SRT_CBH015	18/01/2019	Interlab_D	ES1901871	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0002	<0.001	0.037	-	0.004	-	-	<0.0001	0.012	0.077	-
SRT_CBH015	SRT_CBH015	20/02/2019	Normal	641720	-	-	-	-	<0.005	<10	30	-	-	-	2.5	-	4.4	-	3.1	-	23	-	13	49	-	-	-	-	<0.01	3	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	6.6	<0.0001	0.01	0.023	0.05
SRT_CBH015	SRT_CBH015	17/04/2019	Normal	651825	-	-	-	-	<0.005	<10	39	-	-	-	4	-	5.8	-	3.9	-	30	-	16	52	-	-	-	-	<0.01	3.5	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	5.8	<0.0001	0.01	0.024	<0.5
SRT_CBH015	SRT_CBH015	15/05/2019	Normal	656080	6.5	140	1.7	-	<0.005	<10	34	-	-	-	2.7	-	5.3	-	3.5	-	29	-	13	48	-	-	-	-	0.03	3	<0.001	<0.0002	<0.001	0.007	-	<0.001	-	5.1	<0.0001	0.009	0.024	<0.05
SRT_CBH015	SRT_CBH015	7/06/2019	Normal	660130	6.1	96	1.6	-	<0.005	<10	26	-	-	-	2.2	-	4.8	-	3.3	-	27	-	29	47	-	-	-	-	0.03	3.3	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	7.5	<0.0001	0.01	0.027	<0.5
SRT-CBH015	SRT_CBH015	31/07/2019	Normal	669059	6	130	5.1	-	<0.005	<10	22	-	-	-	2.6	-	5.7	-	3.8	-	22	-	37	42	-	-	-	-	<0.01	3.2	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	6.1	<0.0001	0.009	0.021	<0.05
QC02	SRT_CBH015	31/07/2019	Field_D	669059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.009	0.022	-
SRT_CBH015	SRT_CBH015	30/08/2019	Normal	674722	6.3	180	10	-	<0.005	<10	25	-	-	-	2.7	-	5.7	-	4	-	23	-	9.5	49	-	-	-	-	<0.01	2.3	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	6.5	<0.0001	0.009	0.025	<0.05
QC02	SRT_CBH015	30/08/2019	Field_D	674722	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	-	<0.0001	0.009	0.026	-
SRT_CBH015	SRT_CBH015	27/09/2019	Normal	679636	6.3	120	5.1	-	<0.005	<10	28	-	-	-	2.7	-	5.1	-	3.2	-	24	-	10	47	-	-	-	-	<0.01	2.7	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	6.8	<0.0001	0.01	0.034	<0.05
SRT_CBH015	SRT_CBH015	18/10/2019	Normal	683453	6.3	150	10	-	<0.005	<10	23	-	-	-	2.8	-	5.3	-	3.5	-	19	-	15	39	-	-	-	-	<0.01	3	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	6.8	<0.0001	0.012	0.023	0.07
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	6.3	140	2.9	-	<0.005	<10	22	-	-	-	3.1	-	5.6	-	3.5	-	19	-	64	41	-	-	-	-	0.02	2.8	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	6.3	<0.0001	0.01	0.022	<0.05
SRT_CBH015	SRT_CBH015	18/12/2019	Normal	694466	6.1	120	39	-	<0.004	<10	25	-	-	-	3	-	5.3	-	3.4	-	18	-	14	45	-	-	-	-	0.06	2.4	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	5.5	<0.0001	0.011	0.024	0.17
SRT-CBH017	SRT_CBH017	7/09/2018	Normal	616629	-	-	-	-	<0.005	<10	78	-	-	-	16	-	8.1	-	3.5	-	19	-	9.7	21	-	-	-	-	<0.01	0.2	<0.001	<0.0002	<0.001	0.038	-	0.004	-	-	<0.0001	0.006	0.069	-
SRT-CBH017	SRT_CBH017	25/10/2018	Normal	624838	-	-	-	-	<0.005	<10	65	-	-	-	13	-	6	-	2.9	-	14	-	8.8	19	-	-	-	-	<0.01	0.62	<0.001	<0.0002	<0.001	0.081	-	0.004	-	0.85	<0.0001	0.01	0.12	<0.05
SRT_CBH017	SRT_CBH017	26/11/2018	Normal	629922	-	-	-	-	<0.005	<10	84	-	-	-	15	-	6.7	-	2.7	-	13	-	16	18	-	-	-	-	<0.01	0.38	<0.001	<0.0002	<0.001	0.12	-	0.006	-	-	<0.0001	0.016	0.21	-
SRT_CBH017	SRT_CBH017	17/12/2018	Normal	634274	-	-	-	-	<0.005	<10	42	-	-	-	19	-	9	-	3.2	-	17	-	11	17	-	-	-	-	<0.01	2.5	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	1.8	<0.0001	0.008	0.017	<0.05
SRT_CBH017	SRT_CBH017	18/01/2019	Normal	636542	-	-	-	-	0.017	<10	44	-	-	-	13	-	6.7	-	2.7	-	12	-	7.9	12	-	-	-	-	<0.01	1.9	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	1.8	<0.0001	0.005	0.01	<0.05
SRT_CBH017	SRT_CBH017	20/02/2019	Normal	641720	-	-	-	-	<0.005	<10	32	-	-	-	8.7	-	5	-	2.7	-	9.6	-	15	16	-	-	-	-	<0.01	3.1	<0.001	<0.0002	<0.001	0.032	-	0.002	-	1	<0.0001	0.01	0.033	<0.05
QA01	SRT_CBH017	20/02/2019	Field_D	641720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	0.002	<0.001	-	<0.001	-	-	<0.0001	0.01	0.023	-
SRT_CBH017	SRT_CBH017	17/04/2019	Normal	651825	-	-	-	-	<0.005	<10	44	-	-	-	9.6	-	4.9	-	3.2	-	9.2	-	8.8	15	-	-	-	-	<0.01	3.1	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.65	<0.0001	0.004	0.008	<0.5
SRT_CBH017	SRT_CBH017	15/05/2019	Normal	656080	6.7	88	16	-	<0.005	<10	30	-	-	-	10	-	6.8	-	3	-	11	-	19	17	-	-	-	-	<0.01	4.4	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.7	<0.0001	0.004	0.008	<0.05
SRT_CBH017	SRT_CBH017	7/06/2019	Normal	660130	6.8	81	8.8	-	<0.005	<10	52	-	-	-	7.1	-	6.5	-	3.1	-	15	-	12	19	-	-	-	-	0.03	1.9	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	5.1	<0.0001	0.006	0.017	<0.5
SRT-CBH017	SRT_CBH017	31/07/2019	Normal	669059	6.8	130	79	-	<0.005	<10	59	-	-	-	11	-	9.8	-	3.4	-	20	-	50	23	-	-	-	-	<0.01	0.48	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	2.1	<0.0001	0.005	0.015	<0.05
SRT_CBH017	SRT_CBH017	30/08/2019	Normal	674722	7	180	3.8	-	<0.005	<10	67	-	-	-	12	-	9.6	-	3.4	-	19	-	13	26	-	-	-	-	<0.01	0.32	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.38	<0.0001	0.004	0.014	<0.05
SRT_CBH017	SRT_CBH017	27/09/2019	Normal	679636	7.1	120	2	-	<0.005	<10	66	-	-	-	12	-	9.6	-	3.1	-	20	-	16	30	-	-	-	-	<0.01	0.38	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.45	<0.0001	0.002	0.006	0.05
QC02	SRT_CBH017	27/09/2019	Field_D	679636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	-	<0.0001	0.002	0.006	-
SRT_CBH017	SRT_CBH017	18/10/2019	Normal	683453	7.1	150	2.3	-	<0.005	<10	63	-	-	-	11	-	9.1	-	3.2	-	21	-	15	32	-	-	-	-	<0.01	0.33	<0.001	<0.0002	<0.001	0.017	-	0.001	-	0.6	<0.0001	0.016	0.069	0.09
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	7.2	150	5.1	-	<0.005	<10	77	-	-	-	14	-	11	-	3.6	-	24	-	50	30	-	-	-	-	<0.01	0.19	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	1.3	<0.0001	0.005	0.008	0.07
SRT_CBH017	SRT_CBH017	18/12/2019	Normal	694466	7	150	9.6	-	<0.004	<10	78	-	-	-	13	-	10	-	3.5	-	21	-	13	31	-	-	-	-	0.02	0.31	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	2.3	<0.0001	0.006	0.01	0.17
SRT_CBH017	SRT_CBH017	20/01/2020	Normal	698379	6.2	200	49	-	<0.004	<10	110	-	-	-	12	-	10	-	2.8	-	20	-	85	34	-	-	-	-	0.01	0.03	<0.001	<0.0002	<0.001	0.014	-	<0.001	-	3.6	<0.0001	0.011	0.074	0.64
Statistical Summary																																										
Number of Results					323	322	322	3	389	382	382	78	78	73	382	3	382	3	382	3	382	3	384	381	3	3	3	3	388	305	453	453	453	453	12	453	25	346	453	453	453	370
Number of Detects					323	322	320	2	75	9	356	0	77	73	371	3	362	3	327	3	382	3	384	363	3	3	3	3	209	193	100	10	31	309	12	84	25	290	10	389	373	222
Minimum Concentration					3.5	81	<1	<0.004	<0.004	<1	<20	<1	<20	32	1.4	137	<0.5	8	0.5	6	6.6	28	7	<2	327	10.5	9.95	0.58	<0.01	<0.02	<0.001	<0.0001	<0.001	<0.001	0.06	<0.001	0.013	<0.005	<0.0001	<0.001	<0.005	<0.05
Minimum Detect					3.5	81	1.6	0.005	0.004	11	20	ND	21	32	1.4	137	0.7	8	0.5	6	6.6	28	7	2.1	327	10.5	9.95	0.58	0.01	0.02	0.001	0.0001	0.001	0.001	0.06	0.001	0.013	0.005	0.0001	0.001	0.005	0.05
Maximum Concentration					11	1200	42000	0.015	0.163	150	3000	<20	2200	510	460	169	190	10	170	30	230	56	910	940	392	10.8	11.4	3.86	1.3	25	0.012	<0.002	<0.01	0.36	190	0.023	7.4	7.5	<0.001	0.085	0.55	19
Maximum Detect					11	1200	42000	0.015	0.163	150	3000	ND	2200	510	460	169	190	10	170	30	230	56	910	940	392	10.8	11.4	3.86	1.3	25	0.012	0.0006	0.007	0.36	190	0.023	7.4	7.5	0.0004	0.085	0.55	19
Average Concentration					6.9	357	1121	0.0073	0.0072	6.4	202	9.6	385	162	37	148	15	9	6.1	22	59	46	80	60	369	11	11	2.4	0.072	2.9	0.0012	0.00011	0.00066	0.015	29	0.0011	0.74	0.53	0.00006	0.0097	0.043	2.6
Median Concentration					7	290	120	0.005	0.0025	5	110	10	124.5	120	23.5	139	8.1	9	3.5	29	46.5	54	49	39	389	10.7	10.7	2.77	0.02	0.1	0.0005	0.0001	0.0005	0.002	19.5	0.0005	0.43	0.25	0.00005	0.006	0.023	0.255
Standard Deviation					0.95	203	4083	0.0068	0.019	11	337	1.8	586	126	49	18	17	1	13	14	41	16	101	84	37	0.15	0.73	1.7	0.16	5.7	0.0017	0.00012	0.00072	0.038	52	0.0021	1.4	1.2	0.000062	0.011	0.062	3.8
Number of Guideline Exceedances					0	0	0	0	217	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7	8	280	0	21	1	14	17	228	296	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	276	0	14	1	14	10	224	290	0

Appendix B
Table B2 - Groundwater Analytical Results (Sept 2018 to Mar 2021)

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																		
					Benzene	**Toluene**	**Ethylbenzene**	**Xylene (o)**	**Xylene (m & p)**	**Xylene Total**	**BTEX (Sum of Total) - Lab Calc**	**Naphthalene (BTEXN suite)**	**F1 (C6-C10 minus BTEX)**	**C6-C10 Fraction**	**F2 (>C10-C16 minus Naphthalene)**	**>C10-C16 Fraction**	**F3 (>C16-C34 Fraction)**	**F4 (>C34-C40 Fraction)**	**>C10-C40 (Sum of Total)**	**>C10-C16 SG Cleanup**	**>C16-C34 SG Cleanup**	**>C34-C40 SG Cleanup**	**Acenaphthene**	**Acenaphthylene**	**Anthracene**	**Benz(a)anthracene**	**Benzo(a)pyrene**	**Benzo[b+j]fluoranthene**	**Benzo(k)fluoranthene**	**Benzo(g,h,i)perylene**	**Chrysene**	**Dibenz(a,h)anthracene**	**Fluoranthene**	**Fluorene**	**Indeno(1,2,3-c,d)pyrene**	**Naphthalene-PAH**	**Phenanthrene**	**Pyrene**	**Sum of standard 16 PAHs**	**PAHs (Sum of total) - Lab calc**	**Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc**
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1														
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																									
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																					**NL**					
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																					**NL**					
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																					**NL**					
NEPM 2013 Table 1C GILs, Marine Waters					500							50																								50					
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																					
CSM_BH02	CSM_BH02	16/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	14/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	6/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	60	60	200	100	360	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	29/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	26/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	17/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH02	CSM_BH02	17/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	21/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	25/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	260	260	300	<100	560	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	14/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	19/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH02	18/06/2020	Field_D	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	15/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	18/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	14/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH02	14/09/2020	Field_D	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH02	27/01/2021	Field_D	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	300	300	100	500	900	300	100	500	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	16/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	13/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	11/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	29/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	26/09/2019	Normal	679636	<1	2	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	17/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	CSM_BH04	17/10/2019	Field_D	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	-	<0.5
CSM_BH04	CSM_BH04	17/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	21/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	-	0.06	-
QC02	CSM_BH04	21/01/2020	Field_D	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1	0.17	0.08	-	1.25	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	25/02/2020	Field_D	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	300	<100	300	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	18/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	14/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	20/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	15/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	60	60	100	<100	160	50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	17/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH04	17/08/2020	Interlab_D	ES2028968	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH04	CSM_BH04	14/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	0.07	0.11	0.07	0.06	<0.01	0.08	<0.01	0.07	<0.01	<0.01	0.05	0.06	0.15	-	0.72	-
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH04	19/11/2020	Field_D	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	70	70	200	200	470	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH04	17/02/2021	Field_D	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH05	CSM_BH05	17/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	900	200	1100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																							
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b+j]fluoranthene	Benzo[k]fluoranthene	Benzo[g,h,i]perylene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1																
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																												
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																							**NL**						
NEPM 2013 Table 1C GILs, Marine Waters					500							50																										50						
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																									
CSM_BH05	CSM_BH05	13/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH05	CSM_BH05	11/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH05	CSM_BH05	29/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	18/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	300	<100	300	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	14/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	CSM_BH06	14/05/2019	Field_D	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	6/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC04	CSM_BH06	8/06/2019	Field_D	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	-	2	-
CSM_BH06	CSM_BH06	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	28/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	26/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	17/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	17/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH06	17/12/2019	Field_D	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	300	<100	300	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	16/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH06	16/03/2020	Interlab_D	ES2009232	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH06	CSM_BH06	14/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	0.1	<0.01	-	0.17	-
QC01	CSM_BH06	14/04/2020	Interlab_D	ES2012716	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH06	CSM_BH06	19/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	15/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	18/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	14/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	130	130	<100	<100	130	130	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.02	<0.01	-	0.05	-
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	18/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	CSM_BH08	18/04/2019	Field_D	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	15/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	6/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC03	CSM_BH08	6/06/2019	Interlab_D	ES1917968	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
CSM_BH08	CSM_BH08	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	29/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	26/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	18/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH08	CSM_BH08	16/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.06	<0.01	0.03	-	0.14	-
CSM_BH08	CSM_BH08	21/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	25/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	14/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	0.03	-	0.06	-
CSM_BH08	CSM_BH08	18/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	-	0.05	-
QC01	CSM_BH08	18/05/2020	Interlab_D	ES2017182	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH08	CSM_BH08	17/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.09	<0.01	<0.01	<0.01	-	0.09	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/06/2020	Interlab_D	ES2021404	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH08	CSM_BH08	15/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH08	15/07/2020	Interlab_D	ES2024606	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH08	CSM_BH08	19/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	14/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH08	14/09/2020	Interlab_D	ES2032425	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	0.09	0.17	0.15	0.14	<0.01	0.15	<0.01	0.17	<0.01	<0.01	<0.01	0.04	0.17	-	1.08	-
QC01	CSM_BH08	27/10/2020	Field_D	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	0.04	0.16	0.17	0.15	0.15	0.18	0.18	0.03	0.15	<0.01	0.11	0.03	0.08	0.16	-	1.59	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	0.2	0.33	0.4	0.1	0.3	0.2	<0.1	0.3	<0.1	<0.1	0.2	<0.1	0.3	-	2.3	0.4
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
BD01	CSM_BH08	21/12/2020	Field_D	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																							
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1																
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																												
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																							**NL**						
NEPM 2013 Table 1C GILs, Marine Waters					500							50																										50						
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																								
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	100	100	<50	<100	100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH08	17/03/2021	Field_D	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	17/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH09S	17/04/2019	Interlab_D	ES1912362	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
CSM_BH09S	CSM_BH09S	13/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH09S	13/05/2019	Interlab_D	ES1914810	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
CSM_BH09S	CSM_BH09S	11/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH09S	CSM_BH09S	29/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH09S	29/07/2019	Interlab_D	ES1924197	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	-	<0.5
CSM_BH09S	CSM_BH09S	28/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH09S	28/08/2019	Interlab_D	EM1914568	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	-	<0.5
CSM_BH09S	CSM_BH09S	25/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH09S	25/09/2019	Interlab_D	ES1931406	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	-	<0.5
CSM_BH09S	CSM_BH09S	16/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	CSM_BH09S	16/12/2019	Interlab_D	ES1941823	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH09S	CSM_BH09S	21/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH09S	24/02/2020	Interlab_D	ES2006512	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH09S	CSM_BH09S	17/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	16/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	20/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	19/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09s	CSM_BH09S	19/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH09S	16/07/2020	Field_D	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	18/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH09S	18/08/2020	Field_D	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	16/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	16/04/2019	Normal	651825	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	13/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	11/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	29/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	25/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	16/10/2019	Normal	683453	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	CSM_BH10S	16/10/2019	Interlab_D	ES1934142	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	-	<0.5
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	400	400	<100	<100	400	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	CSM_BH10S	14/11/2019	Field_D	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
CSM_BH10S	CSM_BH10S	17/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	20/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC01	CSM_BH10S	20/01/2020	Interlab_D	ES2001825	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH10S	17/03/2020	Field_D	708508	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	15/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
QC02	CSM_BH10S	15/04/2020	Field_D	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	18/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.01	-	0.1	-
QC02	CSM_BH10S	20/05/2020	Field_D	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	17/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	15/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																					
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1															
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																											
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																						**NL**						
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																						**NL**						
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																						**NL**						
NEPM 2013 Table 1C GILs, Marine Waters					500							50																									50						
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																								
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	150	150	200	200	550	80	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	-	0.02	-
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	5/06/2019	Normal	659250	2	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH10	GASW_BH10	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH10	GASW_BH10	28/08/2019	Normal	674722	<4	<4	<4	<4	<8	<12	-	<40	<80	<80	310	310	100	<100	410	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH10	GASW_BH10	26/09/2019	Normal	679636	<1	2	<1	<1	<2	<3	-	<10	<20	<20	300	300	<100	<100	300	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH10	GASW_BH10	17/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH10	GASW_BH10	16/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	-	0.04	-
GASW_BH10	GASW_BH10	21/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	0.05	-
GASW_BH10	GASW_BH10	24/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.09	<0.01	-	0.09	-
GASW_BH10	GASW_BH10	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	100	100	<100	<100	100	<50	200	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	14/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	19/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	18/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.01	0.02	-	0.07	-
GASW_BH10	GASW_BH10	15/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	17/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	14/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	200	<100	250	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	90	90	200	<100	290	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	70	70	210	210	<100	<100	210	210	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	-	0.02	-
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	5/06/2019	Normal	659250	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	160	160	<100	<100	160	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	GASW_BH11	5/06/2019	Field_D	659250	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	220	220	<100	<100	220	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH11	GASW_BH11	30/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	100	100	<100	<100	100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH11	GASW_BH11	28/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	270	270	<100	<100	270	140	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH11	GASW_BH11	25/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	640	640	200	<100	840	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH11	GASW_BH11	16/10/2019	Normal	683453	20	2	<1	<1	<2	<3	-	<10	<20	40	210	210	<100	<100	210	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	8	<1	<1	<1	<2	<3	-	<10	<20	<20	210	210	<100	<100	210	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH11	GASW_BH11	16/12/2019	Normal	694466	10	<1	<1	<1	<2	<3	-	<10	<20	<20	170	170	<100	<100	170	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	-	0.02	-
GASW_BH11	GASW_BH11	22/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	220	220	<100	<100	220	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	<0.01	-	0.04	-
GASW_BH11	GASW_BH11	24/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	480	480	<100	<100	480	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/03/2020	Normal	708508	2	<1	<1	<1	<2	<3	-	<10	<20	<20	510	510	<100	<100	510	<50	200	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	16/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	360	360	100	<100	460	<50	<100	<100	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01	<0.01	<0.01	0.04	0.04	-	0.2	-
GASW_BH11	GASW_BH11	20/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	580	580	300	<100	880	230	100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	19/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	340	340	<100	<100	340	70	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	16/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	340	340	200	<100	540	<50	<100	<100	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.02	<0.01	0.08	0.07	0.04	-	0.28	-
GASW_BH11	GASW_BH11	17/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	16/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	350	350	100	<100	450	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	360	360	100	<100	460	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	220	220	300	<100	520	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	180	180	200	<100	380	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	250	250	200	<100	450	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	<1	2	<1	<1	<2	<3	-	<10	<20	<20	110	110	300	200	610	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	-	0.02	-
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
BH23	GASW_BH23	23/08/2019	Normal	ES1926979	1490	264	21	21	41	62	1840	26	<200	1970	330	360	190	<100	550	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	1.3	<1	4	1.7	<1	7	-	<0.5
GW-BR1	GASW_BH23	23/08/2019	Field_D	ES1926979	1900	319	25	24	48	72	2320	15	<200	2440	300	310	270	<100	580	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	2.9	1.6	<1	4.5	-	<0.5
GASW_BH23	GASW_BH23	25/09/2019	Normal	679636	1900	230	30	25	44	68	-	<10	2800	5000	400	400	300	<100	700	240	200	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	-	2	-
GASW_BH23	GASW_BH23	16/10/2019	Normal	683453	2400	290	40	29	44	73	-	<200	4000	6800	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	4	<1	<1	-	4	-
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	3200	260	<50	<50	<100	<150	-	<500	3200	6700	<500	320	<100	<100	320	<50	<100	<100	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	7	1	<1	-	11	-
GASW_BH23	GASW_BH23	16/12/2019	Normal	694466	560	53	<8	<8	<16	<24	-	<80	260	870	<50	<50	<100	<100	<100	<50	<100	<100	0.25	0.03	0.11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.29	0.3	<0.01	0.28	0.1	0.38	-	1.74	-
GASW_BH23	GASW_BH23	22/01/2020	Normal	698379	1500	53	<50	<50	<100	<150	-	<500	-	1500	<500	110	<100	<100	110	50	<100	<100	0.15	0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.18	<0.01	0.49	0.08	0.09	-	1.13	-
GASW_BH23	GASW_BH23	24/02/2020	Normal	704673	**5500**	340	<100	<100	<200	<300	-	<1000	3200	9000	<1000	880	200	<100	1080	70	<100	<100	1.3	0.1	0.48	0.06	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.39	1.4	<0.01	9.1	1.6	0.4	-	14.88	-
GASW_BH23	GASW_BH23	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/03/2020	Normal	708508	640	45	<10	<10	<20	<30	-	<100	420	1100	150	150	<100	<100	150	<50	<100	<100	0.26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	0.16	<0.01	0.43	0.07	0.17	-	1.21	-
GASW_BH23	GASW_BH23	16/04/2020	Normal	714027	1400	360	64	68	140	210	-	<500	670	2700	<500	120	1200	<100	1320	<50	700	<100	0.82	0.07	0.3	0.1	0.09	0.06	0.05	0.04	0.14	<0.01	0.54	1	0.04	1.7	0.78	0.67	-	6.4	-
GASW_BH23	GASW_BH23	20/05/2020	Normal	720682	470	17	8	7	10	17	-	<40	240	750	370	370	300	<100	670	<50	<100	<100	0.21	0.04	0.3	0.15	0.17	0.16	0.13	<0.01	0.15	<0.01	0.6	0.42	<0.01	0.61	1	0.78	-	4.72	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																					
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo[k]fluoranthene	Benzo[g,h,i]perylene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1																
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																												
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																							**NL**						
NEPM 2013 Table 1C GILs, Marine Waters					500							50																									50						
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																									
GASW_BH23	GASW_BH23	17/06/2020	Normal	726825	220	8	2	2	5	7	-	<20	260	500	70	70	100	<100	170	<50	<100	<100	0.13	0.02	0.11	0.09	0.06	0.05	0.05	0.04	0.08	<0.01	0.25	0.19	0.03	0.25	0.21	0.31	-	1.87	-
GASW_BH23	GASW_BH23	16/07/2020	Normal	732590	84	2	1	1	<2	<3	-	<10	30	120	<50	<50	100	<100	100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	0.1	-	0.15	-
GASW_BH23	GASW_BH23	17/08/2020	Normal	738860	130	7	4	2	4	7	-	<10	90	240	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH23	GASW_BH23	15/09/2020	Normal	744463	440	7	6	<5	<10	<15	-	<50	220	670	240	240	300	<100	540	110	200	<100	0.28	0.15	0.5	0.47	0.72	0.49	0.53	0.47	0.42	0.14	1.2	0.87	0.36	1.7	0.81	1.9	-	11.01	-
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	9	<1	<1	<1	<2	<3	-	<10	<20	<20	120	120	<100	<100	120	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	**5500**	31	49	13	24	37	-	<10	3300	8900	170	170	300	<100	470	<50	<100	<100	1.2	0.1	0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.4	1.3	<0.01	3.5	0.7	0.41	-	7.91	-
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	850	<10	16	<10	<20	<30	-	<100	30	900	160	160	200	<100	360	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	65	<1	<1	<1	<2	<3	-	<10	40	100	110	110	200	<100	310	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	45	2	<1	<1	<2	<3	-	<10	<20	60	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	0.09	<0.01	<0.01	0.13	-	0.13	-
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	60	1	1	<1	<2	<3	-	<10	50	110	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GW-SR1	GASW_BH25A	23/08/2019	Interlab_D	673339	**15,000**	7100	460	<400	930	930	-	<4000	500	24,000	<4000	920	500	<100	1420	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	7	1	<1	-	8	-
BH25a	GASW_BH25A	23/08/2019	Normal	ES1926979	**15,300**	5660	280	283	612	895	22,100	89	2360	24,500	430	520	490	<100	1010	-	-	-	1.2	<1	1.5	<1	<0.5	<1	<1	<1	<1	<1	2.4	2.1	<1	9.6	3.7	2.8	23.3	-	<0.5
GASW_BH25A	GASW_BH25A	25/09/2019	Normal	679636	3600	1200	53	77	140	220	-	<40	4900	10,000	260	260	200	<100	460	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	-	1	-
GASW_BH25a	GASW_BH25A	16/10/2019	Normal	683453	2700	990	40	50	95	140	-	<200	5000	8900	<200	90	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1	-	2	-
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	2200	870	<50	<50	<100	<150	-	<500	3000	6100	<500	310	<100	<100	310	140	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	3	<1	<1	<1	-	4	-
GASW_BH25A	GASW_BH25A	16/12/2019	Normal	694466	**9700**	3500	110	120	250	370	-	<500	**6300**	20,000	<500	280	300	<100	580	<50	<100	<100	0.62	0.36	0.83	0.35	0.36	0.21	0.27	0.2	0.35	0.05	1.5	1.1	0.15	4.9	1.6	2	-	14.85	-
GASW_BH25A	GASW_BH25A	22/01/2020	Normal	698379	**30,000**	11,000	<400	<400	<800	<1200	-	<4000	**11,000**	52,000	<4000	520	<100	<100	520	150	<100	<100	1.1	0.5	0.87	0.19	0.07	0.06	0.06	0.02	0.18	<0.01	0.79	1.9	0.02	20	2.6	0.98	-	29.34	-
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	704673	**16,000**	7200	460	420	1100	1600	-	<1000	1800	27,000	<1000	430	<100	<100	430	140	<100	<100	0.7	0.28	0.94	0.24	0.32	0.15	0.14	0.12	0.32	0.02	1.2	1.6	0.09	13	1.8	1.5	-	22.42	-
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25a	GASW_BH25A	17/03/2020	Normal	708508	**9800**	4900	300	340	700	1000	-	<2000	**7000**	23,000	<2000	240	<100	<100	240	70	<100	<100	0.33	0.15	<0.01	0.09	0.08	0.07	0.06	0.03	0.1	<0.01	0.51	0.68	0.02	6.4	0.75	0.62	-	9.89	-
GASW_BH25A	GASW_BH25A	16/04/2020	Normal	714027	**29,000**	12,000	1200	1200	2500	3800	-	<4000	100	46,000	<4000	2300	23,000	1300	26,600	470	200	<100	0.93	0.56	0.73	0.16	0.21	0.14	0.14	0.09	0.28	0.03	0.91	2	0.07	26	3.6	1.5	-	37.35	-
GASW_BH25A	GASW_BH25A	20/05/2020	Normal	720682	**26,000**	12,000	560	720	1300	2000	-	<2000	**20,000**	61,000	<2000	1100	800	<100	1900	330	200	<100	1.2	0.48	1.5	0.46	0.52	0.37	0.26	0.05	0.52	<0.01	1.7	2	0.05	28	4.6	2.4	-	44.11	-
GASW_BH25A	GASW_BH25A	19/06/2020	Normal	726825	**9400**	6500	270	400	790	1200	-	<1000	**18,000**	35,000	<1000	800	600	<100	1400	340	200	<100	0.6	0.38	0.56	0.22	0.21	0.14	0.15	0.11	0.22	0.05	0.86	1.4	0.11	17	2.1	1.1	-	25.21	-
GASW_BH25A	GASW_BH25A	16/07/2020	Normal	732590	**5000**	2000	120	160	270	430	-	<1000	350	7900	<1000	360	300	<100	660	110	<100	<100	0.08	0.02	0.1	0.09	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	0.39	0.11	<0.01	0.17	0.28	0.45	-	1.77	-
GASW_BH25A	GASW_BH25A	17/08/2020	Normal	738860	**7100**	4500	220	300	590	890	-	<1000	4300	17,000	<1000	220	100	<100	320	<50	<100	<100	0.3	0.31	0.44	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.41	0.95	<0.01	15	1.3	0.6	-	19.31	-
GASW_BH25A	GASW_BH25A	16/09/2020	Normal	744463	**23,000**	11,000	510	700	1400	2100	-	<4000	**16,000**	53,000	<4000	1800	900	<100	2700	500	<100	<100	0.79	0.27	0.58	0.17	0.23	0.13	0.14	0.12	0.12	0.03	1.1	1.8	0.08	21	2.2	1.5	-	30.26	-
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	1200	360	21	29	80	110	-	<200	210	1900	470	470	<100	<100	470	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	3200	2100	170	200	410	610	-	<500	1000	7100	960	960	600	<100	1560	570	100	<100	0.11	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	0.14	<0.01	0.3	<0.01	0.18	-	0.92	-
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	1300	600	62	71	110	180	-	<200	460	2600	330	330	300	<100	630	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	<0.01	<0.01	0.19	<0.01	0.13	-	0.44	-
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	10	7	1	1	<2	3	-	<10	20	40	110	110	200	<100	310	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	20	11	1	3	4	7	-	<10	30	70	80	80	200	200	480	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	3	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
GASW_BH7	GASW_BH7	5/06/2019	Normal	659250	1	<1	<1	<1	<2	<3	-	<10	<20	<20	630	630	400	<100	1030	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC01	GASW_BH7	5/06/2019	Interlab_D	ES1917381	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	380	380	210	<100	590	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
GASW_BH7	GASW_BH7	30/07/2019	Normal	669059	9	<1	<1	<1	<2	<3	-	<10	20	30	140	140	<100	<100	140	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH7	GASW_BH7	28/08/2019	Normal	674722	27	<1	<1	<1	<2	<3	-	<10	20	50	450	450	200	<100	650	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH7	GASW_BH7	25/09/2019	Normal	679636	70	6	<1	1	<2	<3	-	<10	30	110	840	840	400	<100	1240	240	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH7	GASW_BH7	16/10/2019	Normal	683453	91	8	<1	1	<2	<3	-	<10	80	180	810	810	400	<100	1210	190	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	130	8	1	2	3	4	-	<10	120	260	300	300	<100	<100	300	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
GASW_BH7	GASW_BH7	16/12/2019	Normal	694466	120	3	1	2	3	5	-	<10	20	150	180	180	<100	<100	180	<50	<100	<100	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.05	<0.01	0.3	0.01	0.02	-	0.46	-
GASW_BH7	GASW_BH7	22/01/2020	Normal	698379	42	<1	<1	1	<2	<3	-	<10	50	90	220	220	<100	<100	220	<50	<100	<100	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	<0.01	-	0.23	-
GASW_BH7	GASW_BH7	24/02/2020	Normal	704673	62	1	<1	<1	<2	<3	-	<10	30	90	300	300	<100	<100	300	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	<0.01	-	0.17	-
GASW_BH7	GASW_BH7	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	17/03/2020	Normal	708508	3	<1	<1	<1	<2	<3	-	<10	<20	<20	440	440	100	<100	540	<50	100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.01	<0.01	-	0.1	-
SRT-BH039	SRT_BH039	7/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA02	SRT_BH039	7/09/2018	Interlab_D	ES1826658	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	230	<100	230	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
SRT-BH039	SRT_BH039	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA02	SRT_BH039	26/10/2018	Interlab_D	ES1832040	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	220	<100	220	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
SRT-BH047	SRT_BH047	6/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH047	SRT_BH047	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	18/12/2018	Normal	634274	<1	2	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	17/01/2019	Normal	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	20/02/2019	Normal	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	430	430	1400	300	2130	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	16/04/2019	Normal	651825	<1	7	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	14/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	7/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH047	SRT_BH047	31/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	30/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	27/09/2019	Normal	679636	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	18/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH047	SRT_BH047	18/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	20/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	26/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																					
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b+j]fluoranthene	Benzo[k]fluoranthene	Benzo[g,h,i]perylene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1																
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																												
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																						**NL**							
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																						**NL**							
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																						**NL**							
NEPM 2013 Table 1C GILs, Marine Waters					500							50																									50							
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																									
SRT_BH047	SRT_BH047	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	16/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	15/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	18/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	19/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	15/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT-BH048	SRT_BH048	6/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH048	SRT_BH048	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH048	SRT_BH048	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH050	SRT_BH050	16/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	15/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	17/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	230	230	100	<100	330	200	100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	17/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	19/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	100	300	<50	100	100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	<1	3	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT-BH052	SRT_BH052	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	18/12/2018	Normal	634274	<1	2	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	17/01/2019	Normal	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	20/02/2019	Normal	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	16/04/2019	Normal	651825	<1	14	<1	<1	<2	<3	-	<10	<20	30	<50	<50	200	<100	200	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	14/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	7/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH052	SRT_BH052	31/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	30/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	27/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	18/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH052	SRT_BH052	18/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	-	0.01	-
SRT_BH052	SRT_BH052	20/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	26/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	16/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	15/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	18/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	0.02	-	0.05	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	19/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	15/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	70	70	200	200	470	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	-	0.03	-
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT-BH053	SRT_BH053	6/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH053	SRT_BH053	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH059	SRT_BH059	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	3100	3100	2900	800	6800	<50	100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	17/12/2018	Normal	634274	<1	2	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	18/01/2019	Normal	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	20/02/2019	Normal	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																					
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1															
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																											
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																						**NL**						
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																						**NL**						
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																						**NL**						
NEPM 2013 Table 1C GILs, Marine Waters					500							50																									50						
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																								
SRT_BH059	SRT_BH059	17/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	15/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	7/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH059	SRT_BH059	31/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	30/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	27/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	120	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	18/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH059	SRT_BH059	18/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	-	0.03	-
SRT_BH059	SRT_BH059	20/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	26/02/2020	Normal	704673	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	16/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	15/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	18/05/2020	Normal	720682	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	726825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/07/2020	Normal	732590	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	18/08/2020	Normal	738860	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	15/09/2020	Normal	744463	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	0.03	0.04	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	0.09	<0.01	<0.01	<0.01	0.08	0.11	-	0.39	-
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH060	SRT_BH060	16/03/2020	Normal	708508	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT_BH060	SRT_BH060	15/04/2020	Normal	714027	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.01	0.04	0.09	-	0.22	-
SRT-BH063	SRT_BH063	6/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH063	SRT_BH063	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH063	SRT_BH063	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	730	730	1100	200	2030	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA02	SRT_BH063	27/11/2018	Interlab_D	ES1835581	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
SRT_BH063	SRT_BH063	17/12/2018	Normal	634274	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA01	SRT_BH063	17/12/2018	Field_D	634274	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH063	SRT_BH063	17/01/2019	Normal	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA01	SRT_BH063	17/01/2019	Field_D	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH063	SRT_BH063	21/02/2019	Normal	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA02	SRT_BH063	21/02/2019	Interlab_D	ES1905610	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
SRT_BH063	SRT_BH063	18/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	200	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH063	SRT_BH063	15/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH063	SRT_BH063	7/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH063	SRT_BH063	29/07/2019	Normal	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH063	SRT_BH063	28/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH064	SRT_BH064	6/09/2018	Normal	616629	3	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-BH082	SRT_BH082	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA01	SRT_BH082	25/10/2018	Field_D	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_BH082	SRT_BH082	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA01	SRT_BH082	26/11/2018	Field_D	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH001	SRT_CBH001	6/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA01	SRT_CBH001	6/09/2018	Field_D	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH001	SRT_CBH001	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH001	SRT_CBH001	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	510	510	1000	300	1810	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-

					BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup			PAHs - standard 16																							
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	f3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5
ADWG 2011 Recreational (v3.6 updated 2021)					10	8000	3000			6000																	0.1																
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																												
2-4m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
4-8m					**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**																							**NL**						
>8m					**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**																							**NL**						
NEPM 2013 Table 1C GILs, Marine Waters					500							50																										50						
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																									
SRT-CBH007	SRT_CBH007	6/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH015	SRT_CBH015	7/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH015	SRT_CBH015	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	17/12/2018	Normal	634274	<1	2	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA02	SRT_CBH015	17/12/2018	Interlab_D	ES1838345	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
SRT_CBH015	SRT_CBH015	18/01/2019	Normal	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA02	SRT_CBH015	18/01/2019	Interlab_D	ES1901871	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<0.5	<0.5
SRT_CBH015	SRT_CBH015	20/02/2019	Normal	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	17/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	15/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	7/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH015	SRT_CBH015	31/07/2019	Normal	669059	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	SRT_CBH015	31/07/2019	Field_D	669059	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	30/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	300	<100	300	<50	200	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	SRT_CBH015	30/08/2019	Field_D	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	27/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	18/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	540	540	<100	<100	540	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	540	540	<100	<100	540	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH015	SRT_CBH015	18/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
SRT-CBH017	SRT_CBH017	7/09/2018	Normal	616629	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH017	SRT_CBH017	25/10/2018	Normal	624838	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	26/11/2018	Normal	629922	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	17/12/2018	Normal	634274	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	18/01/2019	Normal	636542	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	20/02/2019	Normal	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QA01	SRT_CBH017	20/02/2019	Field_D	641720	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	17/04/2019	Normal	651825	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	15/05/2019	Normal	656080	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	7/06/2019	Normal	660130	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT-CBH017	SRT_CBH017	31/07/2019	Normal	669059	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	30/08/2019	Normal	674722	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	27/09/2019	Normal	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
QC02	SRT_CBH017	27/09/2019	Field_D	679636	<1	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	18/10/2019	Normal	683453	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	-
SRT_CBH017	SRT_CBH017	18/12/2019	Normal	694466	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	-	0.01	-
SRT_CBH017	SRT_CBH017	20/01/2020	Normal	698379	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-
Statistical Summary																																												
Number of Results					453	453	453	453	453	453	34	453	452	453	453	453	453	453	453	346	346	346	452	452	452	452	452	452	452	452	452	452	452	452	452	452	452	452	452	8	444	33
Number of Detects					58	71	33	32	28	29	3	3	45	51	75	92	78	15	110	26	18	3	26	19	23	19	16	16	16	13	19	7	35	27	13	60	37	38	3	66	1
Minimum Concentration					<1	<1	<1	<1	<2	<2	<1	<5	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.5	<0.01	<0.05
Minimum Detect					1	1	1	1	3	3	1840	15	20	30	50	50	100	100	100	50	100	100	0.02	0.01	0.02	0.04	0.06	0.05	0.05	0.02	0.04	0.02	0.01	0.02	0.02	0.01	0.01	0.02	4.5	0.01	0.4
Maximum Concentration					30000	12000	1200	1200	2500	3800	22100	<4000	20000	61000	<4000	3100	23000	1300	26600	570	700	500	1.3	<1	1.5	<1	<1	<1	<1	<1	<1	<1	2.4	2.1	<1	28	4.6	2.8	23.3	44.11	<0.5
Maximum Detect					30000	12000	1200	1200	2500	3800	22100	89	20000	61000	3100	3100	23000	1300	26600	570	700	500	1.3	0.56	1.5	0.47	0.72	0.49	0.53	0.47	0.52	0.14	2.4	2.1	0.36	28	4.6	2.8	23.3	44.11	0.4
Average Concentration					527	212	13	13	28	41	773	37	278	1066	106	99	150	59	234	38	57	52	0.26	0.24	0.25	0.24	0.23	0.24	0.24	0.23	0.24	0.23	0.27	0.28	0.23	0.69	0.3	0.28	4.5	0.95	0.16
Median Concentration					0.5	0.5	0.5	0.5	1	1.5	0.5	5	10	10	25	25	50	50	50	25	50	50	0.06	0.05	0.05	0.05	0.025	0.05	0.05	0.05	0.05	0.0125	0.12	0.05	0.05	0.18	0.07	0.155	0.25	0.25	0.25
Standard Deviation					2982	1293	78	84	176	261	3801	205	1696	5917	272	247	1094	76	1316	60	43	24	0.27	0.24	0.27	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.29	0.34	0.24	2.7	0.46	0.33	8	4.1	0.12
Number of Guideline Exceedances					49	4	0	0	0	0	0	25	6	0	0	0	0	0	0	0	0	0	0	0	0	0	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					49	4	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																		
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
CSM_BH02	CSM_BH02	16/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	14/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	6/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	29/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	26/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	17/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	17/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	21/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	25/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	14/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH02	CSM_BH02	19/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	18/06/2020	Field_D	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
CSM_BH02	CSM_BH02	15/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	14/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	14/09/2020	Field_D	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	16/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	13/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	11/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	29/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	26/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	17/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH04	17/10/2019	Field_D	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	21/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH04	21/01/2020	Field_D	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	25/02/2020	Field_D	704673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2
CSM_BH04	CSM_BH04	14/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	20/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
CSM_BH04	CSM_BH04	15/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	17/08/2020	Interlab_D	ES2028968	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	14/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH05	CSM_BH05	17/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1

Appendix B
Table B2 - Groundwater Analytical Results (Sept 2018 to Mar 2021)

					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																													
CSM_BH05	CSM_BH05	13/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH05	CSM_BH05	11/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH05	CSM_BH05	29/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	18/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	14/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH06	14/05/2019	Field_D	656080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	6/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC04	CSM_BH06	8/06/2019	Field_D	660130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	28/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	26/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	17/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	17/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH06	17/12/2019	Field_D	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	16/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH06	16/03/2020	Interlab_D	ES2009232	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	14/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH06	14/04/2020	Interlab_D	ES2012716	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	19/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
CSM_BH06	CSM_BH06	15/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	14/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH08	18/04/2019	Field_D	651825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	15/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	6/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC03	CSM_BH08	6/06/2019	Interlab_D	ES1917968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	29/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	26/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	18/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	21/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	25/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<1	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2
CSM_BH08	CSM_BH08	14/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH08	CSM_BH08	18/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	18/05/2020	Interlab_D	ES2017182	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
QC01	CSM_BH08	17/06/2020	Interlab_D	ES2021404	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	15/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	15/07/2020	Interlab_D	ES2024606	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	14/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	14/09/2020	Interlab_D	ES2032425	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	<0.1	<0.1	<0.1	0.2	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																													
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	17/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH09S	17/04/2019	Interlab_D	ES1912362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	13/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH09S	13/05/2019	Interlab_D	ES1914810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	11/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	29/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH09S	29/07/2019	Interlab_D	ES1924197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	140	<10	<3	<6	<3	<30	<30	<100	<30	140	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH09S	28/08/2019	Interlab_D	EM1914568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	25/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH09S	25/09/2019	Interlab_D	ES1931406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH09S	16/12/2019	Interlab_D	ES1941823	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	21/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH09S	24/02/2020	Interlab_D	ES2006512	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	17/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	16/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH09S	CSM_BH09S	20/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	19/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09s	CSM_BH09S	19/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
CSM_BH09S	CSM_BH09S	16/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH09S	16/07/2020	Field_D	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	18/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH09S	18/08/2020	Field_D	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	16/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	13/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	11/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	29/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	25/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	16/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH10S	16/10/2019	Interlab_D	ES1934142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH10S	14/11/2019	Field_D	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	20/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	CSM_BH10S	20/01/2020	Interlab_D	ES2001825	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH10S	17/03/2020	Field_D	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	CSM_BH10S	15/04/2020	Field_D	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH10S	20/05/2020	Field_D	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
CSM_BH10S	CSM_BH10S	15/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																													
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	5/06/2019	Normal	659250	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH10	GASW_BH10	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH10	GASW_BH10	28/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH10	GASW_BH10	26/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH10	GASW_BH10	17/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	21/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	11	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	24/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	15	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH10	GASW_BH10	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	33	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	14/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	60	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	45	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	33	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	15/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	68	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	14/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	26	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	53	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	120	<3	<30	<30	<100	<30	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	-	-	-	-	-	<5	<5	<10	<10	<5	<10	<10	<30	<10	<5	<10	<5	<10	<5	<50	<50	<100	<50	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	5/06/2019	Normal	659250	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	GASW_BH11	5/06/2019	Field_D	659250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH11	GASW_BH11	28/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH11	GASW_BH11	25/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH11	GASW_BH11	16/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	22/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	24/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH11	GASW_BH11	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	19/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	58	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23	GASW_BH23	23/08/2019	Normal	ES1926979	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<2	-	-	16.4	<1	8	4.7	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-BR1	GASW_BH23	23/08/2019	Field_D	ES1926979	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<2	-	-	10.2	<1	6.2	4.3	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	25/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	17	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH23	GASW_BH23	16/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	22	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	67	<10	6	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	22/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	37	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	24/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	21	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH23	GASW_BH23	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	6	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	15	<10	5	<6	7	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	20/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																													
GASW_BH23	GASW_BH23	17/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	15/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	20	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-SR1	GASW_BH25A	23/08/2019	Interlab_D	673339	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	6	<10	5	7	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25a	GASW_BH25A	23/08/2019	Normal	ES1926979	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<2	-	-	7.7	<1	4.2	12	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	25/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH25a	GASW_BH25A	16/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	11	<10	5	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	53	<10	42	7	4	<30	<30	<100	<30	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	88	<10	46	55	6	<30	<30	<100	<30	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	22/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	11	<10	7	11	8	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	31	<10	7	10	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25a	GASW_BH25A	17/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	89	<10	21	26	<3	<30	<30	<100	<30	136	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	35	<10	10	7	5	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	37	<10	16	14	6	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	19/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	36	<10	27	19	16	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	11	<10	7	6	3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	35	<10	25	16	25	<30	<30	<100	<30	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	38	<10	26	14	6	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	14	<10	3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	46	<10	45	36	34	<30	<30	<100	<30	161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	9	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	5/06/2019	Normal	659250	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC01	GASW_BH7	5/06/2019	Interlab_D	ES1917381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	30/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH7	GASW_BH7	28/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH7	GASW_BH7	25/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH7	GASW_BH7	16/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	5	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	16/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	4	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	22/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	24/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
GASW_BH7	GASW_BH7	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	17/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH039	SRT_BH039	7/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA02	SRT_BH039	7/09/2018	Interlab_D	ES1826658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH039	SRT_BH039	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA02	SRT_BH039	26/10/2018	Interlab_D	ES1832040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH047	SRT_BH047	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH047	SRT_BH047	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	18/12/2018	Normal	634274	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	17/01/2019	Normal	636542	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	20/02/2019	Normal	641720	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	16/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	14/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	7/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH047	SRT_BH047	31/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	30/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	27/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	18/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	18/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	20/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	26/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1

					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																													
SRT_BH047	SRT_BH047	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	16/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	15/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH047	SRT_BH047	18/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
SRT_BH047	SRT_BH047	17/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	19/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	15/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH048	SRT_BH048	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH048	SRT_BH048	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH048	SRT_BH048	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH050	SRT_BH050	16/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH050	SRT_BH050	15/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH050	SRT_BH050	17/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	17/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	19/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH052	SRT_BH052	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	18/12/2018	Normal	634274	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	17/01/2019	Normal	636542	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	20/02/2019	Normal	641720	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	16/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	14/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	7/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH052	SRT_BH052	31/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	30/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	27/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	18/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	18/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	20/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	26/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	16/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	15/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH052	SRT_BH052	18/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
SRT_BH052	SRT_BH052	17/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	19/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	15/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH053	SRT_BH053	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH053	SRT_BH053	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH059	SRT_BH059	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	17/12/2018	Normal	634274	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	18/01/2019	Normal	636542	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	20/02/2019	Normal	641720	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1

Appendix B
Table B2 - Groundwater Analytical Results (Sept 2018 to Mar 2021)

					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																													
SRT_BH059	SRT_BH059	17/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	15/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	7/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH059	SRT_BH059	31/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	30/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	27/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	18/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	18/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	20/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	26/02/2020	Normal	704673	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	16/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	15/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH059	SRT_BH059	18/05/2020	Normal	720682	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	726825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
SRT_BH059	SRT_BH059	17/07/2020	Normal	732590	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/08/2020	Normal	738860	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	15/09/2020	Normal	744463	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH060	SRT_BH060	16/03/2020	Normal	708508	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH060	SRT_BH060	15/04/2020	Normal	714027	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH063	SRT_BH063	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH063	SRT_BH063	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH063	SRT_BH063	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA02	SRT_BH063	27/11/2018	Interlab_D	ES1835581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	17/12/2018	Normal	634274	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA01	SRT_BH063	17/12/2018	Field_D	634274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	17/01/2019	Normal	636542	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA01	SRT_BH063	17/01/2019	Field_D	636542	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	21/02/2019	Normal	641720	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA02	SRT_BH063	21/02/2019	Interlab_D	ES1905610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	18/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH063	SRT_BH063	15/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH063	SRT_BH063	7/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH063	SRT_BH063	29/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_BH063	SRT_BH063	28/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH064	SRT_BH064	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-BH082	SRT_BH082	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA01	SRT_BH082	25/10/2018	Field_D	624838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH082	SRT_BH082	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA01	SRT_BH082	26/11/2018	Field_D	629922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-CBH001	SRT_CBH001	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA01	SRT_CBH001	6/09/2018	Field_D	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-CBH001	SRT_CBH001	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH001	SRT_CBH001	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
					PAHs - extended					Phenols - Halogenated									Phenols - Non-Halogenated										OC Pesticides																				
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.1	0.1	0.1	0.1	0.1	1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	1	1	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
ADWG 2011 Recreational (v3.6 updated 2021)										3000	2000		200			100																		3		20					90			200					
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																																	
2-4m																																																	
4-8m																																																	
>8m																																																	
NEPM 2013 Table 1C GILs, Marine Waters																11			400																									0.005				0.004	
SRT-CBH007	SRT_CBH007	6/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-CBH015	SRT_CBH015	7/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-CBH015	SRT_CBH015	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	17/12/2018	Normal	634274	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA02	SRT_CBH015	17/12/2018	Interlab_D	ES1838345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	18/01/2019	Normal	636542	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA02	SRT_CBH015	18/01/2019	Interlab_D	ES1901871	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	20/02/2019	Normal	641720	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	17/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	15/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	7/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-CBH015	SRT_CBH015	31/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	SRT_CBH015	31/07/2019	Field_D	669059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	30/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	SRT_CBH015	30/08/2019	Field_D	674722	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	27/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	18/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH015	SRT_CBH015	18/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-CBH017	SRT_CBH017	7/09/2018	Normal	616629	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-CBH017	SRT_CBH017	25/10/2018	Normal	624838	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	26/11/2018	Normal	629922	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	17/12/2018	Normal	634274	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	18/01/2019	Normal	636542	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	20/02/2019	Normal	641720	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QA01	SRT_CBH017	20/02/2019	Field_D	641720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH017	SRT_CBH017	17/04/2019	Normal	651825	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	15/05/2019	Normal	656080	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	7/06/2019	Normal	660130	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT-CBH017	SRT_CBH017	31/07/2019	Normal	669059	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	30/08/2019	Normal	674722	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	27/09/2019	Normal	679636	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
QC02	SRT_CBH017	27/09/2019	Field_D	679636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH017	SRT_CBH017	18/10/2019	Normal	683453	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	18/12/2019	Normal	694466	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1
SRT_CBH017	SRT_CBH017	20/01/2020	Normal	698379	-	-	-	-	-	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1

Statistical Summary

Statistic	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene	2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Organochlorine pesticides EPAVic	Other organochlorine pesticides EPAVic	4,4'-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	4,4 DDD	4,4 DDT	DDT+DDE+DDD - Lab Calc	Dieldrin	Endosulfan	Endosulfan I (alpha)	Endosulfan II (beta)	Endosulfan Sulfate	Endrin	Endrin aldehyde
Number of Results	15	15	15	15	15	392	392	392	392	392	392	392	389	389	392	392	392	392	392	389	389	389	389	389	215	215	224	224	224	224	224	224	9	9	224	224	224	224	224	9	224	224	224	224	224
Number of Detects	0	0	0	1	0	0	0	0	0	0	0	0	0	0	29	0	21	27	14	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1	<1	<1	<1	<1	<2	<30	<10	<3	<1	<3	4.3	1.6	<30	<30	<100	<30	<100	<1	<1	<0.002	<0.002	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Minimum Detect	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	3	4.3	1.6	ND	ND	ND	ND	101	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.1	<0.1	<0.1	0.2	<0.1	<5	<5	<10	<10	<5	<10	<10	<30	<10	140	<10	46	120	34	<50	<50	<100	<50	195	<1	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<0.001	<0.001	<0.2	<0.2	<0.2	<0.2	<0.2	<0.002	<0.2	<0.2	<0.2	<0.2	<0.2
Maximum Detect	ND	ND	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140	ND	46	120	34	ND	ND	ND	ND	195	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.05	0.05	0.05	0.06	0.05	1.5	1.5	5	5	1.5	5	5	15	5	3.8	5	2.3	4.8	1.8	15	15	50	15	52	0.5	0.5	0.048	0.048	0.048	0.048	0.048	0.48	0.0005	0.0005	0.048	0.048	0.048	0.048	0.048	0.001	0.048	0.048	0.048	0.048	0.048
Median Concentration	0.05	0.05	0.05	0.05	0.05	1.5	1.5	5	5	1.5	5	5	15	5	1.5	5	1.5	3	1.5	15	15	50	15	50	0.5	0.5	0.05	0.05	0.05	0.05	0.05	0.5	0.0005	0.0005	0.05	0.05	0.05	0.05	0.05	0.001	0.05	0.05	0.05	0.05	0.05
Standard Deviation	0	0	0	0.039	0	0.1	0.1	0.39	0.39	0.1	0.39	0.35	0	0	12	0.39	4.5	9.5	2.2	0.51	0.51	0	0.51	12	0	0	0.011	0.011	0.011	0.011	0.011	0.098	0	0	0.011	0.011	0.011	0.011	0.011	0	0.011	0.011	0.011	0.011	0.011
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
													OP Pesticides																																	
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																														
2-4m																																														
4-8m																																														
>8m																																														
NEPM 2013 Table 1C GILs, Marine Waters																	0.009																													
CSM_BH02	CSM_BH02	16/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	14/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	6/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	29/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	26/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	17/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	17/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	21/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	25/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	14/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH02	CSM_BH02	19/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	18/06/2020	Field_D	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	15/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	14/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	14/09/2020	Field_D	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	16/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	13/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	11/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	29/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	26/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	17/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH04	17/10/2019	Field_D	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	21/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH04	21/01/2020	Field_D	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	25/02/2020	Field_D	704673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/03/2020	Normal	708508	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<20	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	14/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH04	CSM_BH04	20/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	15/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	17/08/2020	Interlab_D	ES2028968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	14/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH05	CSM_BH05	17/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2

													OP Pesticides																																	
					Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																														
2-4m																																														
4-8m																																														
>8m																																														
NEPM 2013 Table 1C GILs, Marine Waters																	0.009																													
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																										
CSM_BH05	CSM_BH05	13/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH05	CSM_BH05	11/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH05	CSM_BH05	29/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	18/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	14/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH06	14/05/2019	Field_D	656080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	6/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC04	CSM_BH06	8/06/2019	Field_D	660130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	28/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	26/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	17/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	17/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH06	17/12/2019	Field_D	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH06	CSM_BH06	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	16/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH06	16/03/2020	Interlab_D	ES2009232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	14/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH06	14/04/2020	Interlab_D	ES2012716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	19/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	15/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	14/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH08	18/04/2019	Field_D	651825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	15/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	6/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC03	CSM_BH08	6/06/2019	Interlab_D	ES1917968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	29/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	26/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	18/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	16/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	21/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	25/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/03/2020	Normal	708508	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	<20	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	14/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH08	CSM_BH08	18/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	18/05/2020	Interlab_D	ES2017182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/06/2020	Interlab_D	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	15/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	15/07/2020	Interlab_D	ES2024606	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	14/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	14/09/2020	Interlab_D	ES2032425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

													OP Pesticides																																	
					Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																														
2-4m																																														
4-8m																																														
>8m																																														
NEPM 2013 Table 1C GILs, Marine Waters																	0.009																													
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																										
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	17/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH09S	17/04/2019	Interlab_D	ES1912362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	13/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH09S	13/05/2019	Interlab_D	ES1914810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	11/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	29/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH09S	29/07/2019	Interlab_D	ES1924197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH09S	28/08/2019	Interlab_D	EM1914568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	25/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH09S	25/09/2019	Interlab_D	ES1931406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	16/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH09S	16/12/2019	Interlab_D	ES1941823	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	21/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH09S	24/02/2020	Interlab_D	ES2006512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	17/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	16/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH09S	CSM_BH09S	20/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	19/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09s	CSM_BH09S	19/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH09S	16/07/2020	Field_D	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	18/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH09S	18/08/2020	Field_D	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	16/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	13/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	11/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	29/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	25/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	16/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH10S	16/10/2019	Interlab_D	ES1934142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH10S	14/11/2019	Field_D	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	20/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	CSM_BH10S	20/01/2020	Interlab_D	ES2001825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH10S	17/03/2020	Field_D	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	CSM_BH10S	15/04/2020	Field_D	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH10S	20/05/2020	Field_D	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

										OP Pesticides																																			
										Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL						0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)							100	3			3000				300	100	20	100						40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																													
2-4m																																													
4-8m																																													
>8m																																													
NEPM 2013 Table 1C GILs, Marine Waters																			0.009																												
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																										
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	5/06/2019	Normal	659250	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH10	GASW_BH10	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH10	GASW_BH10	28/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH10	GASW_BH10	26/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH10	GASW_BH10	17/10/2019	Normal	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	16/12/2019	Normal	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	21/01/2020	Normal	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	24/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH10	GASW_BH10	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/03/2020	Normal	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	14/04/2020	Normal	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	15/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	14/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	5/06/2019	Normal	659250	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<5	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	GASW_BH11	5/06/2019	Field_D	659250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH11	GASW_BH11	28/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH11	GASW_BH11	25/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH11	GASW_BH11	16/10/2019	Normal	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/12/2019	Normal	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	22/01/2020	Normal	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	24/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH11	GASW_BH11	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/03/2020	Normal	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/04/2020	Normal	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	19/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23	GASW_BH23	23/08/2019	Normal	ES1926979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-BR1	GASW_BH23	23/08/2019	Field_D	ES1926979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	25/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH23	GASW_BH23	16/10/2019	Normal	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/12/2019	Normal	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	22/01/2020	Normal	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	24/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH23	GASW_BH23	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/03/2020	Normal	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/04/2020	Normal	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	20/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number									OP Pesticides																																	
					Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																														
2-4m																																														
4-8m																																														
>8m																																														
NEPM 2013 Table 1C GILs, Marine Waters																0.009																														
GASW_BH23	GASW_BH23	17/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	15/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-SR1	GASW_BH25A	23/08/2019	Interlab_D	673339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25a	GASW_BH25A	23/08/2019	Normal	ES1926979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	25/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH25a	GASW_BH25A	16/10/2019	Normal	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/12/2019	Normal	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	22/01/2020	Normal	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25a	GASW_BH25A	17/03/2020	Normal	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/04/2020	Normal	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	19/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	5/06/2019	Normal	659250	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<5	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC01	GASW_BH7	5/06/2019	Interlab_D	ES1917381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	30/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH7	GASW_BH7	28/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH7	GASW_BH7	25/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH7	GASW_BH7	16/10/2019	Normal	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	16/12/2019	Normal	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	22/01/2020	Normal	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	24/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
GASW_BH7	GASW_BH7	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	17/03/2020	Normal	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH039	SRT_BH039	7/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA02	SRT_BH039	7/09/2018	Interlab_D	ES1826658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH039	SRT_BH039	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA02	SRT_BH039	26/10/2018	Interlab_D	ES1832040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH047	SRT_BH047	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH047	SRT_BH047	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	18/12/2018	Normal	634274	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	17/01/2019	Normal	636542	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	20/02/2019	Normal	641720	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	16/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	14/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	7/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH047	SRT_BH047	31/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	30/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	27/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	18/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	18/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	20/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	26/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number									OP Pesticides																																	
					Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																														
2-4m																																														
4-8m																																														
>8m																																														
NEPM 2013 Table 1C GILs, Marine Waters																	0.009																													
SRT_BH047	SRT_BH047	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	16/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	15/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH047	SRT_BH047	18/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	19/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	15/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH048	SRT_BH048	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH048	SRT_BH048	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH048	SRT_BH048	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH050	SRT_BH050	16/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<500	<500	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH050	SRT_BH050	15/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH050	SRT_BH050	17/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	17/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	19/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH052	SRT_BH052	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	18/12/2018	Normal	634274	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	17/01/2019	Normal	636542	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	20/02/2019	Normal	641720	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	16/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	14/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	7/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH052	SRT_BH052	31/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	30/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	27/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	18/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	18/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	20/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	26/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	16/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	15/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH052	SRT_BH052	18/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	19/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	15/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH053	SRT_BH053	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH053	SRT_BH053	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH059	SRT_BH059	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	17/12/2018	Normal	634274	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	18/01/2019	Normal	636542	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	20/02/2019	Normal	641720	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2

																	OP Pesticides																											
					Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																												
2-4m																																												
4-8m																																												
>8m																																												
NEPM 2013 Table 1C GILs, Marine Waters																	0.009																												
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																									
SRT_BH059	SRT_BH059	17/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	15/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	7/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH059	SRT_BH059	31/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	30/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	27/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	18/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	18/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	20/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	26/02/2020	Normal	704673	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	16/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	15/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH059	SRT_BH059	18/05/2020	Normal	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	ES2021404	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	-	-	-	-	-	<0.005	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	<0.002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/07/2020	Normal	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/08/2020	Normal	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	15/09/2020	Normal	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH060	SRT_BH060	16/03/2020	Normal	708508	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<500	<500	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH060	SRT_BH060	15/04/2020	Normal	714027	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH063	SRT_BH063	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH063	SRT_BH063	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH063	SRT_BH063	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA02	SRT_BH063	27/11/2018	Interlab_D	ES1835581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	17/12/2018	Normal	634274	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA01	SRT_BH063	17/12/2018	Field_D	634274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	17/01/2019	Normal	636542	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA01	SRT_BH063	17/01/2019	Field_D	636542	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	21/02/2019	Normal	641720	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA02	SRT_BH063	21/02/2019	Interlab_D	ES1905610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	18/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH063	SRT_BH063	15/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH063	SRT_BH063	7/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH063	SRT_BH063	29/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_BH063	SRT_BH063	28/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH064	SRT_BH064	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-BH082	SRT_BH082	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA01	SRT_BH082	25/10/2018	Field_D	624838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH082	SRT_BH082	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA01	SRT_BH082	26/11/2018	Field_D	629922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-CBH001	SRT_CBH001	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA01	SRT_CBH001	6/09/2018	Field_D	616629	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-CBH001	SRT_CBH001	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH001	SRT_CBH001	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2

Appendix B
Table B2 - Groundwater Analytical Results (Sept 2018 to Mar 2021)

													OP Pesticides																																	
					Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Oxychlordane	Toxaphene	Tokuthion	Azinphos methyl	Bolstar (Sulprofos)	Chlorfenvinphos	Chlorpyrifos	Chlorpyrifos-methyl	Coumaphos	Demeton-O	Demeton-S	Diazinon	Dichlorvos	Dimethoate	Disulfoton	EPN	Ethion	Ethoprop	Fenitrothion	Fensulfothion	Fenthion	Malathion	Merphos	Methyl parathion	Mevinphos (Phosdrin)	Monocrotophos	Naled (Dibrom)	Omethoate	Parathion	Phorate	Pirimiphos-methyl	Pyrazophos	Ronnel	Terbufos	Trichloronate	Tetrachlorvinphos
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.002	0.002	0.002	0.002	0.002	0.002	0.002	10	2	2	2	2	0.005	2	20	2	20	0.005	2	2	2	2	2	2	2	2	2	0.002	2	2	2	2	2	2	2	2	20	2	2	2	2	2
ADWG 2011 Recreational (v3.6 updated 2021)						100	3			3000				300	100	20	100					40	50	70	40		40	10	70	100	70	700		7	50	20		10	200		900	200		9		1000
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																																														
2-4m																																														
4-8m																																															
>8m																																														
NEPM 2013 Table 1C GILs, Marine Waters																	0.009																													
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																																										
SRT-CBH007	SRT_CBH007	6/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-CBH015	SRT_CBH015	7/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-CBH015	SRT_CBH015	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	17/12/2018	Normal	634274	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA02	SRT_CBH015	17/12/2018	Interlab_D	ES1838345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	18/01/2019	Normal	636542	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA02	SRT_CBH015	18/01/2019	Interlab_D	ES1901871	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	20/02/2019	Normal	641720	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	17/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	15/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	7/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-CBH015	SRT_CBH015	31/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	SRT_CBH015	31/07/2019	Field_D	669059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	30/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	SRT_CBH015	30/08/2019	Field_D	674722	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	27/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	18/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH015	SRT_CBH015	18/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-CBH017	SRT_CBH017	7/09/2018	Normal	616629	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-CBH017	SRT_CBH017	25/10/2018	Normal	624838	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	26/11/2018	Normal	629922	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	17/12/2018	Normal	634274	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	18/01/2019	Normal	636542	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	20/02/2019	Normal	641720	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QA01	SRT_CBH017	20/02/2019	Field_D	641720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH017	SRT_CBH017	17/04/2019	Normal	651825	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	15/05/2019	Normal	656080	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	7/06/2019	Normal	660130	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT-CBH017	SRT_CBH017	31/07/2019	Normal	669059	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	30/08/2019	Normal	674722	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	27/09/2019	Normal	679636	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
QC02	SRT_CBH017	27/09/2019	Field_D	679636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH017	SRT_CBH017	18/10/2019	Normal	683453	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	18/12/2019	Normal	694466	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
SRT_CBH017	SRT_CBH017	20/01/2020	Normal	698379	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<10	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2

Statistical Summary

Number of Results					224	224	224	224	224	224	9	215	215	215	215	215	224	215	215	215	215	224	215	215	215	215	215	215	215	215	215	224	215	215	215	215	215	215	215	215	215	215	215	215	215	215
Number of Detects					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration					<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<10	<2	<2	<2	<2	<0.005	<2	<20	<2	<20	<0.005	<2	<2	<2	<2	<2	<2	<2	<2	<2	<0.002	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration					<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.002	<20	<2	<2	<2	<2	<20	<2	<20	<2	<20	<2	<2	<2	<2	<2	<2	<2	<2	<500	<500	<2	<2	<2	<5	<2	<2	<2	<2	<2	<20	<2	<2	<2	<2	<2
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration					0.048	0.048	0.048	0.048	0.048	0.048	0.001	5	1	1	1	1	9.6	1	10	1	10	0.96	1	1	1	1	1	1	1	3.3	3.3	0.96	1	1	1	1	1	1	1	1	10	1	1	1	1	1
Median Concentration					0.05	0.05	0.05	0.05	0.05	0.05	0.001	5	1	1	1	1	10	1	10	1	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1
Standard Deviation					0.011	0.011	0.011	0.011	0.011	0.011	0	0.48	0	0	0	0	2	0	0	0	0	0.2	0	0	0	0	0	0	0	24	24	0.2	0	0	0.14	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	215	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																
CSM_BH02	CSM_BH02	16/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH02	CSM_BH02	14/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	6/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH02	CSM_BH02	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	29/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	26/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	17/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	13/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	17/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	21/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	25/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH02	CSM_BH02	14/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH02	CSM_BH02	19/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH02	18/06/2020	Field_D	726825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	15/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	14/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	14/09/2020	Field_D	744463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	16/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH04	CSM_BH04	13/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	11/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH04	CSM_BH04	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	29/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	26/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	17/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH04	17/10/2019	Field_D	683453	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	13/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH04	13/11/2019	Interlab_D	ES1937682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	21/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH04	21/01/2020	Field_D	698379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	25/02/2020	Field_D	704673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH04	CSM_BH04	14/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	20/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH04	CSM_BH04	18/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	15/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	17/08/2020	Interlab_D	ES2028968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH04	CSM_BH04	14/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH05	CSM_BH05	17/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number															
CSM_BH05	CSM_BH05	13/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH05	CSM_BH05	11/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH05	CSM_BH05	29/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	18/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH06	CSM_BH06	14/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH06	14/05/2019	Field_D	656080	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	6/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC04	CSM_BH06	8/06/2019	Field_D	660130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	28/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	26/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	17/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	13/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	17/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH06	17/12/2019	Field_D	694466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	16/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC01	CSM_BH06	16/03/2020	Interlab_D	ES2009232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH06	CSM_BH06	14/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH06	14/04/2020	Interlab_D	ES2012716	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH06	CSM_BH06	19/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH06	CSM_BH06	18/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	15/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	14/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC02	CSM_BH08	18/04/2019	Field_D	651825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	15/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	6/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC03	CSM_BH08	6/06/2019	Interlab_D	ES1917968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	29/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	26/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	18/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	13/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	21/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	25/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	18/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH08	CSM_BH08	14/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	18/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	18/05/2020	Interlab_D	ES2017182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH08	CSM_BH08	17/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH08	CSM_BH08	17/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/06/2020	Interlab_D	ES2021404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH08	CSM_BH08	15/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	15/07/2020	Interlab_D	ES2024606	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH08	CSM_BH08	19/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	14/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	14/09/2020	Interlab_D	ES2032425	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	17/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC01	CSM_BH09S	17/04/2019	Interlab_D	ES1912362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	13/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH09S	13/05/2019	Interlab_D	ES1914810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	11/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH09S	CSM_BH09S	29/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH09S	29/07/2019	Interlab_D	ES1924197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH09S	28/08/2019	Interlab_D	EM1914568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	25/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH09S	25/09/2019	Interlab_D	ES1931406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH09S	CSM_BH09S	14/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH09S	CSM_BH09S	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH09S	16/12/2019	Interlab_D	ES1941823	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH09S	CSM_BH09S	21/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH09S	CSM_BH09S	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC01	CSM_BH09S	24/02/2020	Interlab_D	ES2006512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH09S	CSM_BH09S	17/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH09S	CSM_BH09S	16/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH09S	CSM_BH09S	20/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	19/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH09s	CSM_BH09S	19/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH09S	16/07/2020	Field_D	732590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	18/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH09S	18/08/2020	Field_D	738860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	16/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	16/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH10S	CSM_BH10S	13/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	11/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
CSM_BH10S	CSM_BH10S	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	29/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	25/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	16/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH10S	16/10/2019	Interlab_D	ES1934142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	14/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH10S	14/11/2019	Field_D	688512	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	20/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC01	CSM_BH10S	20/01/2020	Interlab_D	ES2001825	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	25/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC02	CSM_BH10S	17/03/2020	Field_D	708508	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	CSM_BH10S	15/04/2020	Field_D	714027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH10S	20/05/2020	Field_D	720682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
CSM_BH10S	CSM_BH10S	19/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	15/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	5/06/2019	Normal	659250	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
GASW_BH10	GASW_BH10	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH10	GASW_BH10	28/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH10	GASW_BH10	26/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH10	GASW_BH10	17/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	13/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	21/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	24/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH10	GASW_BH10	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	14/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	15/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	14/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	5/06/2019	Normal	659250	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC02	GASW_BH11	5/06/2019	Field_D	659250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH11	GASW_BH11	28/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH11	GASW_BH11	25/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH11	GASW_BH11	16/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	14/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	22/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	24/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH11	GASW_BH11	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	19/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	16/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH23	GASW_BH23	23/08/2019	Normal	ES1926979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-BR1	GASW_BH23	23/08/2019	Field_D	ES1926979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	25/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH23	GASW_BH23	16/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	14/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	22/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	24/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH23	GASW_BH23	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	20/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-

					Pesticides		Herbicides						PCBs								SVOCs
					Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)					200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																					
2-4m																					
4-8m																					
>8m																					
NEPM 2013 Table 1C GILs, Marine Waters																					
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																	
GASW_BH23	GASW_BH23	17/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	16/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	15/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GW-SR1	GASW_BH25A	23/08/2019	Interlab_D	673339	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH25a	GASW_BH25A	23/08/2019	Normal	ES1926979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	25/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH25a	GASW_BH25A	16/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	14/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	22/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH25A	GASW_BH25A	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25a	GASW_BH25A	17/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	19/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	16/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	5/06/2019	Normal	659250	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
QC01	GASW_BH7	5/06/2019	Interlab_D	ES1917381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	30/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH7	GASW_BH7	28/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH7	GASW_BH7	25/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH7	GASW_BH7	16/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	14/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	16/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	22/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	24/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
GASW_BH7	GASW_BH7	24/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GASW_BH7	GASW_BH7	17/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH039	SRT_BH039	7/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA02	SRT_BH039	7/09/2018	Interlab_D	ES1826658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH039	SRT_BH039	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA02	SRT_BH039	26/10/2018	Interlab_D	ES1832040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH047	SRT_BH047	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH047	SRT_BH047	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	18/12/2018	Normal	634274	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	17/01/2019	Normal	636542	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	20/02/2019	Normal	641720	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	16/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH047	SRT_BH047	14/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	7/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT-BH047	SRT_BH047	31/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	30/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	27/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	18/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	15/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	18/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	20/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	26/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																
SRT_BH047	SRT_BH047	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	16/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH047	SRT_BH047	15/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	18/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH047	SRT_BH047	17/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	19/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	15/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH048	SRT_BH048	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH048	SRT_BH048	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH048	SRT_BH048	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH050	SRT_BH050	16/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH050	SRT_BH050	15/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH050	SRT_BH050	17/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH050	SRT_BH050	17/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	19/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH052	SRT_BH052	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	18/12/2018	Normal	634274	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	17/01/2019	Normal	636542	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	20/02/2019	Normal	641720	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	16/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH052	SRT_BH052	14/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	7/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT-BH052	SRT_BH052	31/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	30/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	27/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	18/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	15/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	18/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	20/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	26/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	16/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH052	SRT_BH052	15/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	18/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH052	SRT_BH052	17/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	19/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	15/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-BH053	SRT_BH053	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH053	SRT_BH053	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH059	SRT_BH059	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	0	-
SRT_BH059	SRT_BH059	17/12/2018	Normal	634274	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	18/01/2019	Normal	636542	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	20/02/2019	Normal	641720	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																
SRT_BH059	SRT_BH059	17/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH059	SRT_BH059	15/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	7/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT-BH059	SRT_BH059	31/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	30/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	27/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	18/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	15/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	18/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	20/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	26/02/2020	Normal	704673	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	26/02/2020	Normal	706746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	16/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH059	SRT_BH059	15/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	18/05/2020	Normal	720682	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	726825	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH059	SRT_BH059	17/06/2020	Normal	ES2021404	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	17/07/2020	Normal	732590	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/08/2020	Normal	738860	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	15/09/2020	Normal	744463	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH060	SRT_BH060	16/03/2020	Normal	708508	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH060	SRT_BH060	15/04/2020	Normal	714027	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH063	SRT_BH063	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH063	SRT_BH063	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH063	SRT_BH063	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA02	SRT_BH063	27/11/2018	Interlab_D	ES1835581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	17/12/2018	Normal	634274	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA01	SRT_BH063	17/12/2018	Field_D	634274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	17/01/2019	Normal	636542	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA01	SRT_BH063	17/01/2019	Field_D	636542	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	21/02/2019	Normal	641720	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA02	SRT_BH063	21/02/2019	Interlab_D	ES1905610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH063	SRT_BH063	18/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_BH063	SRT_BH063	15/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH063	SRT_BH063	7/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT-BH063	SRT_BH063	29/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_BH063	SRT_BH063	28/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH064	SRT_BH064	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-BH082	SRT_BH082	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA01	SRT_BH082	25/10/2018	Field_D	624838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_BH082	SRT_BH082	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA01	SRT_BH082	26/11/2018	Field_D	629922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-CBH001	SRT_CBH001	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA01	SRT_CBH001	6/09/2018	Field_D	616629	-	-	<100	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT-CBH001	SRT_CBH001	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH001	SRT_CBH001	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-

	Pesticides		Herbicides						PCBs								SVOCs
	Atrazine	Simazine	Dinoseb	Diuron	Metolachlor	Molinate	Thiobencarb	Trifluralin	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	PCBs (Total)	Coronene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.005	0.005	100	0.005	0.005	0.005	0.005	0.005	1	1	1	1	1	1	1	1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)	200	200		200	3000	40	400	900									
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																	
2-4m																	
4-8m																	
>8m																	
NEPM 2013 Table 1C GILs, Marine Waters																	

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																
SRT-CBH007	SRT_CBH007	6/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-CBH015	SRT_CBH015	7/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-CBH015	SRT_CBH015	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	17/12/2018	Normal	634274	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA02	SRT_CBH015	17/12/2018	Interlab_D	ES1838345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	18/01/2019	Normal	636542	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA02	SRT_CBH015	18/01/2019	Interlab_D	ES1901871	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	20/02/2019	Normal	641720	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	17/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_CBH015	SRT_CBH015	15/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	7/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT-CBH015	SRT_CBH015	31/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	SRT_CBH015	31/07/2019	Field_D	669059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	30/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	SRT_CBH015	30/08/2019	Field_D	674722	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH015	SRT_CBH015	27/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	18/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	15/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH015	SRT_CBH015	18/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-CBH017	SRT_CBH017	7/09/2018	Normal	616629	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT-CBH017	SRT_CBH017	25/10/2018	Normal	624838	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	26/11/2018	Normal	629922	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	17/12/2018	Normal	634274	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	18/01/2019	Normal	636542	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	20/02/2019	Normal	641720	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QA01	SRT_CBH017	20/02/2019	Field_D	641720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH017	SRT_CBH017	17/04/2019	Normal	651825	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT_CBH017	SRT_CBH017	15/05/2019	Normal	656080	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	7/06/2019	Normal	660130	-	-	<100	-	-	-	-	-	<5	<1	<5	<5	<5	<5	<5	<1	-
SRT-CBH017	SRT_CBH017	31/07/2019	Normal	669059	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	30/08/2019	Normal	674722	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	27/09/2019	Normal	679636	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
QC02	SRT_CBH017	27/09/2019	Field_D	679636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SRT_CBH017	SRT_CBH017	18/10/2019	Normal	683453	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	15/11/2019	Normal	688512	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	18/12/2019	Normal	694466	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-
SRT_CBH017	SRT_CBH017	20/01/2020	Normal	698379	-	-	<100	-	-	-	-	-	<1	<1	<1	<1	<1	<1	<1	<1	-

Statistical Summary

Number of Results	9	9	389	9	9	9	9	9	225	225	225	225	225	225	225	225	15
Number of Detects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Minimum Concentration	<0.005	<0.005	<100	<0.005	<0.005	<0.005	<0.005	<0.005	<1	<1	<1	<1	<1	<1	<1	0	<0.1
Minimum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration	<0.005	<0.005	<100	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<1	<5	<5	<5	<5	<5	<1	<0.1
Maximum Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration	0.0025	0.0025	50	0.0025	0.0025	0.0025	0.0025	0.0025	0.86	0.5	0.86	0.86	0.86	0.86	0.86	0.5	0.05
Median Concentration	0.0025	0.0025	50	0.0025	0.0025	0.0025	0.0025	0.0025	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.05
Standard Deviation	0	0	0	0	0	0	0	0	0.77	0	0.77	0.77	0.77	0.77	0.77	0.033	0
Number of Guideline Exceedances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Inorganics			Cyanide	Acidity & Alkalinity					Major Ions						Nutrients		Metals											
	pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Magnesium	Potassium	Sodium	Chloride	Sulfate	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)
	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	5	1	0.004	1	1	1	1	1	0.5	0.5	0.5	0.5	1	2	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005
ADWG 2011 Recreational (v3.6 updated 2021)				0.8											5000		112.9	0.1	0.02		20		0.1	5	5	0.01	0.2	
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																												
2-4m																												
4-8m																												
>8m																												
NEPM 2013 Table 1C GILs, Marine Waters				0.004												0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																									
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	7.1	300	2800	<0.004	<10	240	<20	240	230	41	32	7.1	86	110	46	<0.01	-	<0.001	<0.0002	<0.001	0.005	-	<0.001	-	0.04	<0.0001	0.007	0.024
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	7.8	490	1000	<0.004	<10	260	-	-	180	28	28	11	98	120	31	<0.01	0.08	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.044	<0.0001	0.004	0.022
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	6.6	190	980	<0.004	<10	140	-	-	-	12	12	4.1	56	44	38	<0.01	0.05	<0.001	<0.0002	<0.001	<0.001	-	<0.001	0.36	-	<0.0001	0.009	0.015
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	7.1	330	740	0.01	<10	160	<20	160	240	36	36	<5	62	51	45	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.13	<0.0001	0.003	0.015
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	0.002	<0.001	-	<0.001	-	-	<0.0001	0.003	0.011
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	7.2	560	12,000	<0.004	<10	330	<20	330	240	35	38	6.5	100	180	27	0.04	-	<0.001	<0.0002	<0.001	0.012	25	<0.001	0.45	-	<0.0001	0.007	0.012
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	7.6	280	5500	<0.004	<10	2000	<20	2000	140	23	20	3	69	83	36	0.18	-	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.11	0.0001	0.008	0.017
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	6.4	220	1500	<0.004	<10	88	<20	88	120	14	21	6.6	69	120	50	0.07	-	<0.001	<0.0002	<0.001	0.01	-	<0.001	-	0.33	<0.0001	0.037	0.093
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	6.8	250	250	<0.004	<10	90	-	-	91	11	15	<5	69	84	25	<0.01	<0.02	0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.33	<0.0001	0.01	0.097
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	-	<0.0001	0.01	0.053
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	6	330	17,000	<0.004	<10	99	-	-	-	58	66	16	58	110	29	0.13	<0.02	<0.001	<0.0002	<0.001	0.002	-	<0.001	7.4	-	<0.0001	0.046	0.07
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	7.1	320	190	0.004	<10	110	<20	110	85	8.2	16	<5	85	110	53	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.46	<0.0001	0.019	0.034
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.008	-	<0.001	-	-	<0.0001	0.014	0.028
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	5.7	190	340	<0.004	<10	100	<20	100	68	5.3	13	4	61	83	44	0.02	-	<0.001	<0.0002	0.001	0.005	24	<0.001	0.57	-	<0.0001	0.024	0.016
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	-	<0.0001	0.023	0.013
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	7.3	230	370	<0.004	<10	1900	<20	1900	68	6.8	12	2.6	70	69	56	0.03	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.42	<0.0001	0.026	0.027
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.023	0.023
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	6.6	390	120	<0.004	<10	110	<20	110	180	26	28	4.4	120	310	37	0.13	-	0.002	<0.0002	<0.001	0.019	-	<0.001	-	0.33	<0.0001	0.018	0.085
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	6.6	470	230	<0.004	<10	96	-	-	160	19	27	5.8	110	270	25	0.02	<0.02	0.002	<0.0002	<0.001	0.002	-	<0.001	-	0.44	<0.0001	0.007	0.078
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	6.4	430	2500	<0.004	<10	91	-	-	-	17	25	4.7	110	240	24	0.03	<0.02	<0.001	<0.0002	<0.001	0.006	-	<0.001	0.74	-	<0.0001	0.017	0.041
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	6.6	630	43	<0.004	<10	170	<20	170	240	39	34	<5	110	480	44	0.04	-	0.002	<0.0002	0.004	0.002	-	<0.001	-	0.28	<0.0001	0.017	0.053
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	6.4	410	350	<0.004	<10	150	<20	150	190	25	30	5.2	98	410	25	0.06	-	<0.001	<0.0002	<0.001	0.025	19	<0.001	0.38	-	<0.0001	0.01	0.038
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	7.4	510	90	<0.004	<10	1900	<20	1900	200	32	30	4.3	99	220	33	0.01	-	<0.001	<0.0002	<0.001	0.042	-	<0.001	-	0.27	<0.0001	0.01	0.093
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	5.6	250	15	<0.004	<10	97	<20	97	89	17	12	7.2	79	110	60	0.02	-	<0.001	<0.0002	0.001	0.008	-	<0.001	-	0.21	<0.0001	0.02	0.21
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	0.001	0.009	-	<0.001	-	-	<0.0001	0.022	0.24
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0002	0.001	0.146	-	0.008	-	-	<0.0001	0.03	0.312
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	6.6	260	75	<0.004	<10	110	-	-	84	10	14	<5	82	95	32	0.01	0.04	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.28	<0.0001	0.018	0.054
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	6.1	290	96	<0.004	<10	100	-	-	-	9	12	3.1	74	92	50	0.01	0.12	<0.001	<0.0002	<0.001	0.002	-	<0.001	0.29	-	<0.0001	0.024	0.045
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	-	<0.0001	0.023	0.045
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.001	-	<0.001	-	-	<0.0001	0.022	0.048
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	7.2	300	37	<0.004	<10	99	<20	99	78	10	13	<5	75	75	57	0.02	-	<0.001	0.0002	<0.001	0.15	-	0.004	-	0.29	<0.0001	0.028	0.18
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	6.8	300	430	<0.004	<10	140	<20	140	100	12	17	4.6	76	130	43	0.05	-	<0.001	<0.0002	<0.001	0.007	32	<0.001	1.7	-	<0.0001	0.002	<0.005
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	7.4	310	270	<0.004	<10	2000	<20	2000	98	12	16	3.5	78	100	46	0.09	-	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.39	<0.0001	0.005	0.024
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	-	<0.0001	0.005	0.024
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	6.3	280	98	<0.004	<10	59	<20	59	41	3.6	7.7	3	110	69	190	0.04	-	<0.001	<0.0002	<0.001	0.11	-	0.001	-	0.89	<0.0001	0.017	0.1
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	6.4	370	41	<0.004	<10	56	-	-	47	<5	8.5	<5	110	55	120	0.02	<0.02	0.001	<0.0002	<0.001	0.012	-	<0.001	-	1.1	<0.0001	0.009	0.049
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	6.3	370	84	<0.004	<10	63	-	-	-	3.8	7.9	2.8	110	60	170	<0.01	<0.02	<0.001	<0.0002	<0.001	0.086	-	0.002	1.3	-	<0.0001	0.022	0.15
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	5.1	170	7900	<0.004	<10	43	<20	43	120	16	19	12	33	39	100	0.02	-	<0.001	<0.0002	<0.001	0.006	-	<0.001	-	0.61	<0.0001	0.015	0.14
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	6.2	160	710	<0.004	<10	28	-	-	52	6	9	11	37	51	41	<0.01	1.9	0.001	<0.0002	0.003	0.004	-	0.004	-	0.57	<0.0001	0.002	0.006
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	0.0004	<0.001	0.087	-	0.003	-	-	<0.0001	0.013	0.153
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	5.9	150	1700	<0.004	<10	29	-	-	-	8.1	8.1	5.3	35	25	58	<0.01	1.9	<0.001	<0.0002	<0.001	0.002	-	<0.001	0.71	-	<0.0001	0.002	<0.005
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	6.2	210	340	<0.004	<10	26	<20	26	43	5.8	7	<5	36	22	73	<0.01	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	0.58	<0.0001	0.002	0.12
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	5.6	110	230	<0.004	<10	24	<20	24	32	3.4	5.7	3.3	30	47	55	0.11	-	<0.001	<0.0002	<0.001	0.18	4	0.002	0.57	-	<0.0001	0.012	0.075
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0001	<0.001	0.004	-	<0.001	-	-	<0.0001	0.002	<0.005
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	6.7	110	1500	<0.004	<10	1300	<20	1300	42	6.3	6.3	2.9	34	23	72	0.31	-	<0.001	0.0002	<0.001	0.13	-	0.006	-	0.5	<0.0001	0.031	0.23
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	6.9	730	530	<0.004	<10	580	<20	580	470	95	57	12	140	310	10	<0.01	-	0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.18	<0.0001	0.024	0.016
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	7.7	820	200	<0.004	<10	540	-	-	380	73	49	12	140	170	<5	<0.01	<0.02	0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.17	<0.0001	0.036	0.035
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	6.9	780	880	<0.004	<10	610	-	-	-	96	55	12	140	210	2.1	<0.01	<0.02	<0.001	<0.0002	<0.001	<0.001	-	<0.001	0.37	-	<0.0001	0.018	0.01
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	7.4	840	2600	<0.004	<10	590	<20	590	510	110	60	12	140	200	<5	<0.01	-	<0.001	<0.0002	<0.001	0.002	-	<0.001	-	0.17	<0.0001	0.015	0.024
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	6.8	650	37,000	<0.004	<10	520	<20	520	340	60	47	11	110	200	<5	0.12	-	0.003	<0.0002	<0.001	0.085	30	<0.001	0.58	-	<0.0001	0.034	0.057
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	7.9	620	17,000	<0.004	<10	2200	<20	2200	450	100	46	10	120	170	<5	0.16	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.15	<0.0001	0.007	0.023
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	6.6	180	920	<0.004	<10	86	<20	86	110	22	12	5.9	53	74	73	0.13	-	<0.001	<0.0002	<0.001	0.012	-	<0.001	-	0.18	<0.0001	0.004	0.06
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	7.1	190	790	<0.004	<10	81	-	-	88	18	10	9.6	47	76	34	0.03	0.04	0.001	<0.0002	<0.001	0.016	-	<0.001	-	0.19	<0.0001	0.004	0.053

	Inorganics			Cyanide	Acidity & Alkalinity					Major Ions						Nutrients		Metals										
	pH (Lab)	Total Dissolved Solids	Total Suspended Solids	Cyanide (Total)	Alkalinity (Carbonate as CaCO3)	Alkalinity (Bicarbonate as CaCO3)	Alkalinity (Hydroxide as CaCO3)	Alkalinity (total as CaCO3)	Hardness as CaCO3	Calcium	Magnesium	Potassium	Sodium	Chloride	Sulfate	Ammonia as N	Nitrate (as N)	Arsenic (Filtered)	Cadmium (Filtered)	Chromium (III+VI) (Filtered)	Copper (Filtered)	Iron	Lead (Filtered)	Manganese	Manganese (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)
	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
EQL	0.01	5	1	0.004	1	1	1	1	1	0.5	0.5	0.5	0.5	1	2	0.01	0.02	0.001	0.0001	0.001	0.001	0.05	0.001	0.005	0.001	0.0001	0.001	0.005
ADWG 2011 Recreational (v3.6 updated 2021)				0.8											5000		112.9	0.1	0.02		20		0.1	5	5	0.01	0.2	
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																												
2-4m																												
4-8m																												
>8m																												
NEPM 2013 Table 1C GILs, Marine Waters				0.004												0.91			0.0007	0.0044	0.0013		0.0044			0.0001	0.007	0.015

Field_ID	Location_Code	Sampled_Date_Time	Sample_Type	Lab_Report_Number																									
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	6.6	270	5100	<0.004	<10	96	-	-	-	29	12	6.6	50	47	52	0.1	0.11	<0.001	<0.0002	<0.001	0.004	-	<0.001	0.58	-	<0.0001	0.003	0.04
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	8	350	1600	<0.004	<10	150	<20	150	130	38	7.9	<5	44	34	47	0.06	-	0.005	0.0006	<0.001	0.14	-	0.006	-	0.29	<0.0001	0.031	0.3
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	6.6	200	2600	<0.004	<10	120	<20	120	100	29	7	8.1	31	50	26	0.37	-	<0.001	<0.0002	<0.001	0.15	20	0.001	0.39	-	<0.0001	0.017	0.17
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	7.4	210	7200	<0.004	<10	1800	<20	1800	73	20	5.8	2.6	36	34	31	0.35	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.17	<0.0001	0.002	0.069
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	7.2	270	51	<0.004	<10	110	<20	110	230	81	5.6	10	25	29	240	0.06	-	<0.001	<0.0002	<0.001	0.016	-	0.001	-	0.14	<0.0001	0.002	0.19
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	7.8	610	88	0.01	<10	480	-	-	380	140	11	20	36	24	69	0.06	<0.02	0.005	<0.0002	<0.001	0.004	-	<0.001	-	0.32	<0.0001	0.002	<0.005
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	7.4	690	140	0.013	<10	400	-	-	-	180	10	22	37	26	190	0.11	<0.02	0.003	<0.0002	<0.001	0.003	-	0.003	0.48	-	<0.0001	0.001	0.01
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	8.2	550	8.4	<0.004	<10	230	<20	230	340	120	10	9.5	22	55	160	0.04	-	<0.001	0.0002	<0.001	0.018	-	<0.001	-	0.2	<0.0001	0.002	0.22
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	7.1	390	29	<0.004	<10	220	<20	220	490	190	7.3	10	29	15	170	0.4	-	0.004	<0.0002	<0.001	0.008	3.5	<0.001	0.5	-	<0.0001	0.002	0.12
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	8	320	22	<0.004	<10	1700	<20	1700	220	76	6.4	7.3	22	32	98	0.3	-	0.003	<0.0002	<0.001	<0.001	-	<0.001	-	0.26	<0.0001	<0.001	0.052
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	7.3	360	13	0.004	<10	140	<20	140	360	130	11	4.7	23	27	380	0.14	-	0.002	<0.0002	<0.001	0.052	-	0.001	-	0.3	<0.0001	0.01	0.097
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	7.4	390	1900	0.031	<10	210	-	-	400	140	11	9.8	21	62	110	<0.01	<0.02	0.008	<0.0002	<0.001	0.007	-	<0.001	-	0.24	<0.0001	<0.001	<0.005
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	7.5	510	39	0.01	<10	200	-	-	-	130	9.9	4.9	23	20	240	0.24	<0.02	0.003	<0.0002	<0.001	0.005	-	<0.001	0.28	-	<0.0001	0.011	0.072
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	8.2	290	57	<0.004	<10	120	<20	120	160	50	<5	5.4	29	67	60	<0.01	-	0.003	<0.0002	0.001	0.015	-	<0.001	-	0.006	<0.0001	0.001	0.017
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	7.6	180	9.8	<0.004	<10	120	<20	120	110	39	3.4	3.8	21	28	34	<0.01	-	0.003	<0.0002	<0.001	0.15	0.51	0.001	0.013	-	<0.0001	0.053	0.067
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	7.8	160	41	<0.004	<10	1900	<20	1900	130	47	3.9	3.6	18	26	41	0.11	-	0.002	<0.0002	<0.001	<0.001	-	<0.001	-	0.012	<0.0001	<0.001	0.017
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	7.6	200	14	<0.004	<10	96	<20	96	150	42	11	0.8	30	41	47	<0.01	-	<0.001	<0.0002	<0.001	0.11	-	0.002	-	0.007	<0.0001	0.013	0.12
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	6.9	260	48	<0.004	<10	80	-	-	120	27	12	<5	28	57	15	<0.01	19	<0.001	<0.0002	<0.001	0.003	-	<0.001	-	0.53	<0.0001	0.002	<0.005
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	7.3	220	65	<0.004	<10	82	-	-	-	31	10	1.1	27	24	14	0.01	19	<0.001	<0.0002	<0.001	0.003	-	<0.001	0.11	-	<0.0001	0.003	0.019
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	7.4	300	36	<0.004	<10	78	<20	78	120	32	11	<5	29	43	29	0.02	-	<0.001	<0.0002	<0.001	0.024	-	<0.001	-	0.013	<0.0001	0.005	0.11
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	6.2	110	<5	<0.004	<10	21	<20	21	60	11	7.7	0.8	24	37	14	0.19	-	<0.001	<0.0002	<0.001	0.15	0.06	0.002	0.028	-	<0.0001	0.014	0.1
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	6.7	190	97	<0.004	<10	1200	<20	1200	62	11	8.7	0.8	25	84	28	<0.01	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.023	<0.0001	0.005	0.044
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.11	-	0.018	-	0.026	<0.0001	0.01	0.15
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	-	140	11,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001	<0.0002	<0.001	0.15	-	0.003	-	0.022	<0.0001	0.012	0.13
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	5.2	-	-	<0.004	<10	<20	<20	<20	75	23	4.4	11	11	25	41	0.16	-	<0.001	<0.0002	<0.001	0.008	190	<0.001	0.067	-	<0.0001	0.003	0.008
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	5.2	-	-	<0.004	<10	250	<20	250	50	15	3.1	5.2	13	49	56	0.41	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	0.022	<0.0001	0.002	0.01
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	6.9	190	310	<0.004	<10	71	<20	71	90	26	6	3.2	56	69	56	0.04	-	<0.001	<0.0002	<0.001	0.069	-	0.002	-	0.005	<0.0001	0.01	0.093
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	6.7	210	260	<0.004	<10	56	-	-	65	18	5.1	<5	48	80	30	<0.01	8	0.001	<0.0002	<0.001	0.005	-	<0.001	-	<0.005	<0.0001	<0.001	0.018
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	6.9	250	89	<0.004	<10	75	-	-	-	21	4.8	2.1	49	50	34	<0.01	7	<0.001	<0.0002	<0.001	<0.001	-	<0.001	0.052	-	<0.0001	<0.001	<0.005
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	7.6	250	830	<0.004	<10	110	<20	110	81	24	<5	<5	50	46	55	<0.01	-	<0.001	<0.0002	<0.001	0.001	-	<0.001	-	<0.005	<0.0001	<0.001	0.027
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	6.3	130	150	<0.004	<10	37	<20	37	35	7.9	3.7	1.8	39	49	26	<0.01	-	<0.001	<0.0002	<0.001	0.016	1.6	<0.001	0.051	-	<0.0001	0.002	<0.005
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	7.1	180	370	<0.004	<10	1400	<20	1400	52	13	4.5	1.4	43	42	33	0.12	-	<0.001	<0.0002	<0.001	<0.001	-	<0.001	-	<0.005	<0.0001	<0.001	0.006
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	7.6	230	690	<0.004	<10	200	<20	200	390	120	20	7.9	19	14	44	0.04	-	<0.001	<0.0002	0.002	0.009	-	<0.001	-	<0.005	<0.0001	<0.001	0.006
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	7.9	240	220	<0.004	<10	150	-	-	160	51	8	6.7	18	44	27	<0.01	1.8	0.001	<0.0002	0.002	0.014	-	<0.001	-	<0.005	<0.0001	0.006	0.011

Statistical Summary

Number of Results	73	72	72	73	73	73	48	48	61	73	73	73	73	73	73	73	25	87	87	87	87	12	87	24	51	87	87	87
Number of Detects	73	72	71	7	0	72	0	47	61	72	71	60	73	73	69	48	13	24	6	10	72	12	19	24	46	1	79	79
Minimum Concentration	5.1	110	<5	<0.004	<10	<20	<20	<20	32	3.4	3.1	0.8	11	14	2.1	<0.01	<0.02	<0.001	<0.0001	<0.001	<0.001	0.06	<0.001	0.013	<0.005	<0.0001	<0.001	<0.005
Minimum Detect	5.1	110	8.4	0.004	ND	21	ND	21	32	3.4	3.1	0.8	11	14	2.1	0.01	0.04	0.001	0.0002	0.001	0.001	0.06	0.001	0.013	0.005	0.0001	0.001	0.006
Maximum Concentration	8.2	840	37000	0.031	<10	2200	<20	2200	510	190	66	22	140	480	380	0.41	19	0.008	0.0006	0.004	0.18	190	0.018	7.4	1.1	0.0001	0.053	0.312
Maximum Detect	8.2	840	37000	0.031	ND	2200	ND	2200	510	190	66	22	140	480	380	0.41	19	0.008	0.0006	0.004	0.18	190	0.018	7.4	1.1	0.0001	0.053	0.312
Average Concentration	6.9	331	2118	0.0029	5	402	10	523	168	42	17	5.9	60	94	61	0.073	2.4	0.001	0.00011	0.00065	0.029	29	0.0012	0.75	0.24	0.000051	0.012	0.066
Median Concentration	6.9	280	265	0.002	5	120	10	145	120	25	11	4.6	50	60	44	0.03	0.04	0.0005	0.0001	0.0005	0.005	19.5	0.0005	0.42	0.19	0.00005	0.01	0.044
Standard Deviation	0.72	179	5450	0.0039	0	602	0	705	130	44	15	4.4	37	91	64	0.1	5.4	0.0013	0.000066	0.00053	0.049	52	0.0023	1.5	0.23	0.0000054	0.011	0.07
Number of Guideline Exceedances	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	4	1	0	1	51	68
Number of Guideline Exceedances(Detects Only)	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	4	1	0	1	51	68

		Iron speciation	BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup		
		Ferrous Iron	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	F3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup
		mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL		0.05	1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100
ADWG 2011 Recreational (v3.6 updated 2021)			10	8000	3000			6000												
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																				
2-4m			**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**							
4-8m			**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**							
>8m			**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**							
NEPM 2013 Table 1C GILs, Marine Waters			500							50										
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<50	<100	<100
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<50	<100	<100
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<50	<100	<100
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<50	<100	<100
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	-	-	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	300	300	100	500	900	300	100	500
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	5.6	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	7.4	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	8.2	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	4	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	-	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	3.1	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	70	70	200	200	470	<50	<100	<100
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	3.1	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	-	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	6.2	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	9.6	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	11	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	6.3	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	3.2	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	130	130	<100	<100	130	130	<100	<100
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	0.6	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	3.4	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	-	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	4.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	3.8	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	4.3	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	4.7	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	100	100	<50	<100	100
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	4.8	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	5.7	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	5.3	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	5.3	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	<100	<100
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	-	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	150	150	200	200	550	80	<100	<100
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	-	<1	<2	<2	<2	<2	<2	<1	<5	<20	<20	<100	<100	<100	<100	<100	-	-	-
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	4.6	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	6.9	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	200	<100	250	<50	<100	<100
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	6.7	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	50	50	<100	<100	<100	<50	<100	<100
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	1.2	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	90	90	200	<100	290	<50	<100	<100
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	4.9	<1	<1	<1	<1	<2	<3	-	<10	70	70	210	210	<100	<100	210	210	<100	<100
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	0.63	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	360	360	100	<100	460	<50	<100	<100
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	1.3	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	220	220	300	<100	520	<50	<100	<100

		Iron speciation	BTEXN								TRH - NEPM 2013							TRH - NEPM 2013 - SG Cleanup		
		Ferrous Iron	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	BTEX (Sum of Total) - Lab Calc	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	F2 (>C10-C16 minus Naphthalene)	>C10-C16 Fraction	F3 (>C16-C34 Fraction)	F4 (>C34-C40 Fraction)	>C10-C40 (Sum of Total)	>C10-C16 SG Cleanup	>C16-C34 SG Cleanup	>C34-C40 SG Cleanup
		mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL		0.05	1	1	1	1	2	2	1	5	20	20	50	50	100	100	100	50	100	100
ADWG 2011 Recreational (v3.6 updated 2021)			10	8000	3000			6000												
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																				
2-4m			**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**							
4-8m			**5000**	**NL**	**NL**			**NL**		**NL**	**6000**		**NL**							
>8m			**5000**	**NL**	**NL**			**NL**		**NL**	**7000**		**NL**							
NEPM 2013 Table 1C GILs, Marine Waters			500							50										
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	180	180	200	<100	380	<50	<100	<100
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	4.1	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	250	250	200	<100	450	<50	<100	<100
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	<0.5	<1	2	<1	<1	<2	<3	-	<10	<20	<20	110	110	300	200	610	<50	<100	<100
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	0.54	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	0.8	9	<1	<1	<1	<2	<3	-	<10	<20	<20	120	120	<100	<100	120	<50	<100	<100
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	9.1	**5500**	31	49	13	24	37	-	<10	3300	8900	170	170	300	<100	470	<50	<100	<100
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	4.5	850	<10	16	<10	<20	<30	-	<100	30	900	160	160	200	<100	360	<50	<100	<100
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	0.57	65	<1	<1	<1	<2	<3	-	<10	40	100	110	110	200	<100	310	<50	<100	<100
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	4.9	45	2	<1	<1	<2	<3	-	<10	<20	60	<50	<50	<100	<100	<100	<50	<100	<100
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	5.4	60	1	1	<1	<2	<3	-	<10	50	110	<50	<50	<100	<100	<100	<50	<100	<100
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	2	1200	360	21	29	80	110	-	<200	210	1900	470	470	<100	<100	470	<50	<100	<100
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	3.4	3200	2100	170	200	410	610	-	<500	1000	7100	960	960	600	<100	1560	570	100	<100
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	3.2	1300	600	62	71	110	180	-	<200	460	2600	330	330	300	<100	630	<50	<100	<100
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	<0.05	10	7	1	1	<2	3	-	<10	20	40	110	110	200	<100	310	<50	<100	<100
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	<0.5	20	11	1	3	4	7	-	<10	30	70	80	80	200	200	480	<50	<100	<100
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	<0.05	3	1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	-	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	100	300	<50	100	100
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	<0.5	<1	3	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	-	-	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	70	70	200	200	470	<50	<100	<100
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	<0.05	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	100	<100	100	<50	<100	<100
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	<0.5	<1	<1	<1	<1	<2	<3	-	<10	<20	<20	<50	<50	200	<100	200	<50	<100	<100
Statistical Summary																				
Number of Results		74	87	87	87	87	87	87	6	87	87	87	87	87	87	87	87	73	73	73
Number of Detects		39	12	11	8	6	5	6	0	0	10	11	23	23	23	8	28	5	3	3
Minimum Concentration		<0.05	<1	<1	<1	<1	<2	<2	<1	<5	<20	<20	<50	<50	<100	<100	<100	<50	<100	<100
Minimum Detect		0.54	3	1	1	1	4	3	ND	ND	20	40	50	50	100	100	100	80	100	100
Maximum Concentration		11	5500	2100	170	200	410	610	<1	<500	3300	8900	960	960	600	500	1560	570	100	500
Maximum Detect		11	5500	2100	170	200	410	610	ND	ND	3300	8900	960	960	600	500	1560	570	100	500
Average Concentration		2.4	141	36	4.2	4.2	8.3	12	0.5	10	69	260	75	75	94	65	165	41	52	58
Median Concentration		0.585	0.5	0.5	0.5	0.5	1	1.5	0.5	5	10	10	25	25	50	50	50	25	50	50
Standard Deviation		2.8	704	236	20	23	46	69	0	30	370	1253	127	127	91	59	236	75	10	53
Number of Guideline Exceedances		0	10	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)		0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix B
Table B3 - Current groundwater Analytical Results (October 2020 to Mar 2021)

					PAHs - standard 16																	PAHs - extended				
					Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5	0.1	0.1	0.1	0.1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)									0.1																			
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																												
2-4m																		**NL**										
4-8m																		**NL**										
>8m																		**NL**										
NEPM 2013 Table 1C GILs, Marine Waters																		50										
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																								
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
QC02	CSM_BH02	27/01/2021	Field_D	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	0.07	0.11	0.07	0.06	<0.01	0.08	<0.01	0.07	<0.01	<0.01	0.05	0.06	0.15	-	0.72	-	-	-	-	-	-
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
QC02	CSM_BH04	19/11/2020	Field_D	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
QC01	CSM_BH04	17/02/2021	Field_D	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.02	<0.01	-	0.05	-	-	-	-	-	-
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	0.09	0.17	0.15	0.14	<0.01	0.15	<0.01	0.17	<0.01	<0.01	0.04	0.17	-	1.08	-	-	-	-	-	-	-
QC01	CSM_BH08	27/10/2020	Field_D	753369	<0.01	<0.01	0.04	0.16	0.17	0.15	0.15	0.18	0.18	0.03	0.15	<0.01	0.11	0.03	0.08	0.16	-	1.59	-	-	-	-	-	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	<0.1	<0.1	<0.1	0.2	0.33	0.4	0.1	0.3	0.2	<0.1	0.3	<0.1	0.2	<0.1	<0.1	0.3	-	2.3	0.4	<0.1	<0.1	<0.1	0.2	<0.1
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
BD01	CSM_BH08	21/12/2020	Field_D	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
QC01	CSM_BH08	17/03/2021	Field_D	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	-	0.02	-	-	-	-	-	-
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	-	0.02	-	-	-	-	-	-
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-

Appendix B
Table B3 - Current groundwater Analytical Results (October 2020 to Mar 2021)

					PAHs - standard 16																	PAHs - extended				
					Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benzo(a)pyrene	Benzo[b+j]fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene-PAH	Phenanthrene	Pyrene	Sum of standard 16 PAHs	PAHs (Sum of total) - Lab calc	Total 8 PAHs (as BaP TEQ)(zero LOR) - Lab Calc	2-methylnaphthalene	3-methylcholanthrene	7,12-dimethylbenz(a)anthracene	Benzo(e)pyrene	Perylene
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.01	0.5	0.1	0.1	0.1	0.1	0.1
ADWG 2011 Recreational (v3.6 updated 2021)									0.1																			
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																												
2-4m																		**NL**										
4-8m																		**NL**										
>8m																		**NL**										
NEPM 2013 Table 1C GILs, Marine Waters																		50										
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																								
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-	-
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	-	0.02	-	-	-	-	-	-
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	1.2	0.1	0.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.4	1.3	<0.01	3.5	0.7	0.41	-	7.91	-	-	-	-	-	-
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	<0.01	0.09	<0.01	<0.01	-	0.13	-	-	-	-	-	-
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	0.11	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	0.14	<0.01	0.3	<0.01	0.18	-	0.92	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	<0.01	<0.01	0.19	<0.01	0.13	-	0.44	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	-	0.03	-	-	-	-	-	-
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	-	-	-	-
Statistical Summary																												
Number of Results					86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	0	86	5	5	5	5	5	5
Number of Detects					2	2	2	4	4	4	4	2	4	1	7	3	2	11	5	7	0	13	1	0	0	0	1	0
Minimum Concentration					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	99999	<0.01	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1
Minimum Detect					0.11	0.07	0.04	0.07	0.11	0.07	0.06	0.18	0.08	0.03	0.07	0.04	0.11	0.02	0.02	0.13	ND	0.02	0.4	ND	ND	ND	0.2	ND
Maximum Concentration					1.2	0.1	0.3	0.2	0.33	0.4	0.15	0.3	0.2	<0.1	0.4	1.3	0.2	3.5	0.7	0.41	0	7.91	0.4	<0.1	<0.1	<0.1	0.2	<0.1
Maximum Detect					1.2	0.1	0.3	0.2	0.33	0.4	0.15	0.3	0.2	0.03	0.4	1.3	0.2	3.5	0.7	0.41	ND	7.91	0.4	ND	ND	ND	0.2	ND
Average Concentration					0.023	0.01	0.011	0.013	0.015	0.016	0.012	0.013	0.014	0.0079	0.022	0.025	0.011	0.057	0.018	0.024		0.18	0.1	0.05	0.05	0.05	0.08	0.05
Median Concentration					0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005		0.005	0.025	0.05	0.05	0.05	0.05	0.05
Standard Deviation					0.13	0.016	0.033	0.03	0.044	0.049	0.025	0.038	0.034	0.011	0.06	0.14	0.025	0.38	0.076	0.064		0.91	0.17	0	0	0	0.067	0
Number of Guideline Exceedances					0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

					Phenols - Halogenated									Phenols - Non-Halogenated										Herbicides	SVOCs
					2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Dinoseb	Coronene
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	100	0.1
ADWG 2011 Recreational (v3.6 updated 2021)					3000	2000		200			100														
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																									
2-4m																									
4-8m																									
>8m																									
NEPM 2013 Table 1C GILs, Marine Waters											11			400											
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																					
CSM_BH02	CSM_BH02	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH02	CSM_BH02	19/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH02	CSM_BH02	23/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH02	CSM_BH02	27/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC02	CSM_BH02	27/01/2021	Field_D	770782	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH02	CSM_BH02	18/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH02	CSM_BH02	17/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH04	CSM_BH04	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH04	CSM_BH04	19/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC02	CSM_BH04	19/11/2020	Field_D	758435	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	23/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH04	CSM_BH04	27/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC01	CSM_BH04	27/01/2021	Interlab_D	ES2102832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH04	CSM_BH04	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC01	CSM_BH04	17/02/2021	Field_D	775277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH04	CSM_BH04	17/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC02	CSM_BH04	17/03/2021	Interlab_D	ES2109792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH06	CSM_BH06	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH06	CSM_BH06	19/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH06	CSM_BH06	22/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH06	CSM_BH06	27/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH06	CSM_BH06	18/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH06	CSM_BH06	17/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH08	CSM_BH08	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC01	CSM_BH08	27/10/2020	Field_D	753369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QC02	CSM_BH08	27/10/2020	Interlab_D	ES2037870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH08	CSM_BH08	19/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH08	CSM_BH08	21/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
BD01	CSM_BH08	21/12/2020	Field_D	765715	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SD01	CSM_BH08	21/12/2020	Interlab_D	ES2100056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH08	CSM_BH08	28/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH08	CSM_BH08	19/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH08	CSM_BH08	17/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC01	CSM_BH08	17/03/2021	Field_D	781353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CSM_BH09S	CSM_BH09S	28/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH09S	CSM_BH09S	20/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH09S	CSM_BH09S	21/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH10S	CSM_BH10S	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH10S	CSM_BH10S	18/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC01	CSM_BH10S	23/11/2020	Interlab_D	ES2041428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH10S	CSM_BH10S	21/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH10S	CSM_BH10S	28/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
CSM_BH10S	CSM_BH10S	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
QC02	CSM_BH10S	17/02/2021	Interlab_D	ES2105795	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
CSM_BH10S	CSM_BH10S	17/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH10	GASW_BH10	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	53	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH10	GASW_BH10	19/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH10	GASW_BH10	23/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	120	<3	<30	<30	<100	<30	120	<100	-
GASW_BH10	GASW_BH10	27/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH10	GASW_BH10	18/02/2021	Normal	775277	<5	<5	<10	<10	<5	<10	<10	<30	<10	<5	<10	<5	<10	<5	<50	<50	<100	<50	<100	<100	-
GASW_BH10	GASW_BH10	17/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH11	GASW_BH11	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH11	GASW_BH11	20/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-

Appendix B
Table B3 - Current groundwater Analytical Results (October 2020 to Mar 2021)

					Phenols - Halogenated									Phenols - Non-Halogenated										Herbicides	SVOCs
					2-Chlorophenol	2,4-Dichlorophenol	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	tetrachlorophenols	Phenols (Total Halogenated)	Phenol	2-Nitrophenol	2-Methylphenol (o-Cresol)	3,4-Methylphenol (m,p-cresol)	2,4-Dimethylphenol	2,4-Dinitrophenol	4,6-Dinitro-2-methylphenol	4,6-Dinitro-o-cyclohexyl phenol	4-Nitrophenol	Phenols (Total Non Halogenated)	Dinoseb	Coronene
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL					1	1	1	1	1	1	2	30	10	1	1	1	2	1	30	30	100	30	100	100	0.1
ADWG 2011 Recreational (v3.6 updated 2021)					3000	2000		200			100														
NEPM 2013 Table 1A(4) HSL D Comm/Ind GW for Vapour Intrusion, Sand																									
2-4m																									
4-8m																									
>8m																									
NEPM 2013 Table 1C GILs, Marine Waters											11			400											
Field_ID	**Location_Code**	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**																					
GASW_BH11	GASW_BH11	21/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH11	GASW_BH11	28/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH11	GASW_BH11	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH11	GASW_BH11	18/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH23	GASW_BH23	26/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH23	GASW_BH23	18/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH23	GASW_BH23	21/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH23	GASW_BH23	28/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH23	GASW_BH23	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH23	GASW_BH23	18/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH25A	GASW_BH25A	27/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	14	<10	3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH25A	GASW_BH25A	20/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	46	<10	45	36	34	<30	<30	<100	<30	161	<100	-
GASW_BH25A	GASW_BH25A	21/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	9	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH25A	GASW_BH25A	28/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH25A	GASW_BH25A	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
GASW_BH25A	GASW_BH25A	18/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH047	SRT_BH047	26/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH047	SRT_BH047	18/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH047	SRT_BH047	22/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH047	SRT_BH047	29/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH047	SRT_BH047	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH047	SRT_BH047	18/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH050	SRT_BH050	18/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH050	SRT_BH050	22/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH050	SRT_BH050	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH050	SRT_BH050	18/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH052	SRT_BH052	26/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH052	SRT_BH052	18/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH052	SRT_BH052	22/12/2020	Normal	765715	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH052	SRT_BH052	29/01/2021	Normal	770782	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH052	SRT_BH052	17/02/2021	Normal	775277	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH052	SRT_BH052	18/03/2021	Normal	781353	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH059	SRT_BH059	26/10/2020	Normal	753369	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
SRT_BH059	SRT_BH059	18/11/2020	Normal	758435	<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	-
Statistical Summary																									
Number of Results					75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	5
Number of Detects					0	0	0	0	0	0	0	0	0	2	0	3	3	1	0	0	0	0	2	0	0
Minimum Concentration					<3	<3	<10	<10	<3	<10	<10	<30	<10	<3	<10	<3	<6	<3	<30	<30	<100	<30	<100	<100	<0.1
Minimum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	3	36	34	ND	ND	ND	ND	120	ND	ND
Maximum Concentration					<5	<5	<10	<10	<5	<10	<10	<30	<10	46	<10	45	120	34	<50	<50	<100	<50	161	<100	<0.1
Maximum Detect					ND	ND	ND	ND	ND	ND	ND	ND	ND	46	ND	45	120	34	ND	ND	ND	ND	161	ND	ND
Average Concentration					1.5	1.5	5	5	1.5	5	5	15	5	2.3	5	2.2	5.7	1.9	15	15	50	15	52	50	0.05
Median Concentration					1.5	1.5	5	5	1.5	5	5	15	5	1.5	5	1.5	3	1.5	15	15	50	15	50	50	0.05
Standard Deviation					0.12	0.12	0	0	0.12	0	0	0	0	5.3	0	5.1	15	3.8	1.2	1.2	0	1.2	15	0	0
Number of Guideline Exceedances					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Well ID	Sampling Event	Date Measured	SWL (mbTOC)	BOC (mbTOC)	Elevation of well TOC (mAHD)	SWL (mAHD)	Lithology (mAHD)	Well screen (mAHD)	Lithology (mbgl)	Well screen (mbgl)
CSM_BH02	Event 25 - Oct 2020	27/10/2020	19.955	33.075	21.424	1.469	14.28-14.88 concrete / fill 13.98-14.28 residual soil (20.12)-13.98 sandstone	(20.12)-0.88	-	-
CSM_BH02	Event 26 - Nov 2020	19/11/2020	19.87	33.38	21.424	1.554				
CSM_BH02	Event 27 - Dec 2020	23/12/2020	20.14	33.57	21.424	1.284				
CSM_BH02	Event 28 - Jan 2021	27/01/2021	21.455	33.22	21.424	-0.031				
CSM_BH02	Event 29 - Feb 2021	18/02/2021	24.08	33.27	21.424	-2.656				
CSM_BH02	Event 30 - Mar 2021	17/03/2021	26.09	33.25	21.424	-4.666				
CSM_BH04	Event 25 - Oct 2020	27/10/2020	21.1	33.55	15.814	-5.286	13.91-15.91 fill 5.91-13.91 residual (sand, clayey sand, sandy clay) (20.91)-5.91 sandstone	(20.91)-(5.91)	-	-
CSM_BH04	Event 26 - Nov 2020	19/11/2020	21.07	33.86	15.814	-5.256				
CSM_BH04	Event 27 - Dec 2020	23/12/2020	21.04	34.95	15.814	-5.226				
CSM_BH04	Event 28 - Jan 2021	27/01/2021	21.63	33.37	15.814	-5.816				
CSM_BH04	Event 29 - Feb 2021	17/02/2021	21.795	33.65	15.814	-5.981				
CSM_BH04	Event 30 - Mar 2021	17/03/2021	21.89	33.78	15.814	-6.076				
CSM_BH06	Event 25 - Oct 2020	27/10/2020	20.43	35.39	21.93	1.5	19.52-20.02 fill 14.02-19.52 residual (clayey sand, sandy clay, clay) 10.02-14.02 residual / weathered shale / weathered claystone (13.02)-10.02 sandstone	(13.02)-2.02	-	-
CSM_BH06	Event 26 - Nov 2020	19/11/2020	20.34	35.39	21.93	1.59				
CSM_BH06	Event 27 - Dec 2020	22/12/2020	20.59	36.1	21.93	1.34				
CSM_BH06	Event 28 - Jan 2021	27/01/2021	21.85	35.65	21.93	0.08				
CSM_BH06	Event 29 - Feb 2021	18/02/2021	24.26	35.58	21.93	-2.33				
CSM_BH06	Event 30 - Mar 2021	17/03/2021	26.37	35.8	21.93	-4.44				
CSM_BH08	Event 25 - Oct 2020	27/10/2020	14.47	35.01	14.694	0.224	14.28-14.88 concrete / fill 13.98-14.28 residual (sandy clay) (21.88)-13.98 sandstone	(21.88)-(6.88)	-	-
CSM_BH08	Event 26 - Nov 2020	19/11/2020	13.21	35.47	14.694	1.484				
CSM_BH08	Event 27 - Dec 2020	21/12/2020	13.545	34.99	14.694	1.149				
CSM_BH08	Event 28 - Jan 2021	28/01/2021	14.75	34.9	14.694	-0.056				
CSM_BH08	Event 29 - Feb 2021	19/02/2021	16.91	34.95	14.694	-2.216				
CSM_BH08	Event 30 - Mar 2021	17/03/2021	18.73	35.43	14.694	-4.036				
CSM_BH09S	Event 25 - Oct 2020	28/10/2020	4.99	6.59	20.807	15.817	20.59-20.89 fill 14.39-20.59 residual (weathered shale)	5.98-9.68	-	-
CSM_BH09S	Event 26 - Nov 2020	20/11/2020	4.82	6.57	20.807	15.987				
CSM_BH09S	Event 27 - Dec 2020	21/12/2020	4.86	6.58	20.807	15.947				
CSM_BH10S	Event 25 - Oct 2020	27/10/2020	4.21	9.805	15.583	11.373	13.68-15.68 fill 9.68-13.68 redisual soil (sand) 5.68-9.68 residual soil (clayey sand and sandy clay)	5.98-9.68	-	-
CSM_BH10S	Event 26 - Nov 2020	18/11/2020	4.5	9.8	15.583	11.083				
CSM_BH10S	Event 27 - Dec 2020	21/12/2020	4.265	9.79	15.583	11.318				
CSM_BH10S	Event 28 - Jan 2021	28/01/2021	4.3	9.72	15.583	11.283				
CSM_BH10S	Event 29 - Feb 2021	17/02/2021	4.01	9.72	15.583	11.573				
CSM_BH10S	Event 30 - Mar 2021	17/03/2021	3.88	9.8	15.583	11.703				
CSM_BH11S	Event 25 - Oct 2020	26/10/2020	DRY	5.695			-	-	-	-
CSM_BH11S	Event 26 - Nov 2020	18/11/2020	DRY	5.7						
CSM_BH11S	Event 27 - Dec 2020	22/12/2020	DRY	5.695						
CSM_BH11S	Event 28 - Jan 2021	29/01/2021	DRY	5.7						
CSM_BH11S	Event 29 - Feb 2021	17/02/2021	DRY	5.71						
GASW_BH10	Event 25 - Oct 2020	27/10/2020	19.085	24.86	20.493	1.408	-	-	0-3.5 fill 3.5-6 silty clay 6-8.5 shale 8.5-25 sandstone	22-25
GASW_BH10	Event 26 - Nov 2020	19/11/2020	18.98	25.12	20.493	1.513				
GASW_BH10	Event 27 - Dec 2020	23/12/2020	19.275	24.84	20.493	1.218				
GASW_BH10	Event 28 - Jan 2021	27/01/2021	20.37	24.81	20.493	0.123				
GASW_BH10	Event 29 - Feb 2021	18/02/2021	22.48	24.9	20.493	-1.987				
GASW_BH10	Event 30 - Mar 2021	17/03/2021	23.62	24.92	20.493	-3.127				
GASW_BH11	Event 25 - Oct 2020	28/10/2020	7.212	8.05	20.548	13.336	-	-	0-3.7 fill 3.7-6 silty clay 6-7 shale 7-9 sandstone	6-9
GASW_BH11	Event 26 - Nov 2020	20/11/2020	7.24	8.04	20.548	13.308				
GASW_BH11	Event 27 - Dec 2020	21/12/2020	7.24	8.05	20.548	13.308				
GASW_BH11	Event 28 - Jan 2021	28/01/2021	7.245	8.06	20.548	13.303				
GASW_BH11	Event 29 - Feb 2021	17/02/2021	7.215	8.06	20.548	13.333				
GASW_BH11	Event 30 - Mar 2021	18/03/2021	7.16	8.04	20.548	13.388				
GASW_BH23	Event 25 - Oct 2020	26/10/2020	2.294	3.91	19.605	17.311	17.01-19.61 fill	17.01-18.61	-	-
GASW_BH23	Event 26 - Nov 2020	18/11/2020	3.5	3.91	19.605	16.105				
GASW_BH23	Event 27 - Dec 2020	21/12/2020	3.05	3.89	19.605	16.555				
GASW_BH23	Event 28 - Jan 2021	28/01/2021	2.8	3.92	19.605	16.805				
GASW_BH23	Event 29 - Feb 2021	17/02/2021	2.41	3.9	19.605	17.195				
GASW_BH23	Event 30 - Mar 2021	18/03/2021	2.025	3.91	19.605	17.58				
GASW_BH25A	Event 25 - Oct 2020	28/10/2020	1.8	2.94	19.631	17.831	16.73-19.63 fill / concrete	16.73-18.63	-	-
GASW_BH25A	Event 26 - Nov 2020	20/11/2020	DRY		19.631					
GASW_BH25A	Event 27 - Dec 2020	21/12/2020	1.85	2.94	19.631	17.781				
GASW_BH25A	Event 28 - Jan 2021	28/01/2021	1.18	2.96	19.631	18.451				
GASW_BH25A	Event 29 - Feb 2021	17/02/2021	1.11	2.955	19.631	18.521				
GASW_BH25A	Event 30 - Mar 2021	18/03/2021	0.705	2.95	19.631	18.926				
GASW_BH7	Event 25 - Oct 2020	26/10/2020	DRY	6.22	21.17		20.59-20.89 fill 14.39-20.59 residual (weathered shale)	-	0-2.7 fill 2.7-5 silty clay 5-7 shale	5-7
GASW_BH7	Event 26 - Nov 2020	18/11/2020	DRY	6.18	21.17					
GASW_BH7	Event 27 - Dec 2020	21/12/2020	DRY	6.18	21.17					
GASW_BH7	Event 28 - Jan 2021	28/01/2021	DRY	6.2	21.17					
GASW_BH7	Event 29 - Feb 2021	17/02/2021	DRY	6.21	21.17					
GASW_BH7	Event 30 - Mar 2021	17/03/2021	DRY	6.16	21.17					
SRT_BH047	Event 25 - Oct 2020	26/10/2020	4.525	6.96	21.31	16.785	19.71-21.11 fill 14.18-19.71 laminite / residual soil 6.31-14.18 bedrock sandstone	11.91-15.41	-	-
SRT_BH047	Event 26 - Nov 2020	18/11/2020	4.48	6.98	21.31	16.83				
SRT_BH047	Event 27 - Dec 2020	22/12/2020	3.82	6.96	21.31	17.49				
SRT_BH047	Event 28 - Jan 2021	29/01/2021	4.262	6.97	21.31	17.048				
SRT_BH047	Event 29 - Feb 2021	17/02/2021	3.7	6.975	21.31	17.61				
SRT_BH047	Event 30 - Mar 2021	18/03/2021	3.41	6.98	21.31	17.9				
SRT_BH050	Event 25 - Oct 2020	26/10/2020	DRY	2.77			-	-	-	-
SRT_BH050	Event 26 - Nov 2020	18/11/2020	2.59	2.77						
SRT_BH050	Event 27 - Dec 2020	22/12/2020	2.61	2.77						
SRT_BH050	Event 28 - Jan 2021	29/01/2021	DRY	2.77						
SRT_BH050	Event 29 - Feb 2021	17/02/2021	2.51	2.76						
SRT_BH050	Event 30 - Mar 2021	18/03/2021	2.43	2.75						
SRT_BH052	Event 25 - Oct 2020	26/10/2020	6.294	7.92	21.4	15.106	19.55-21.40 fill 16.40-19.55 residual soil 6.08-16.40 sandstone	14.2-16.9	-	-
SRT_BH052	Event 26 - Nov 2020	18/11/2020	6.18	7.92	21.4	15.22				
SRT_BH052	Event 27 - Dec 2020	22/12/2020	6.105	7.865	21.4	15.295				
SRT_BH052	Event 28 - Jan 2021	29/01/2021	6.15	7.89	21.4	15.25				
SRT_BH052	Event 29 - Feb 2021	17/02/2021	6.04	7.92	21.4	15.36				
SRT_BH052	Event 30 - Mar 2021	17/03/2021	5.7	7.91	21.4	15.7				
SRT_BH059	Event 25 - Oct 2020	26/10/2020	5.446	6.001	22.84	17.394	20.04-22.84 fill 16.29-20.04 shale	16.29-21.55	-	-
SRT_BH059	Event 26 - Nov 2020	18/11/2020	4.915	6	22.84	17.925				

mTOC: metres top of casing
AHD: Australian Height Datum
mbgl: metres below ground level

Table B5
Summary of Groundwater Field Parameters - October 2020 to March 2021

Well ID	Sampling Event	Date Measured	SWL (mbTOC)	BOC (mbTOC)	Dissolved Oxygen (ppm)	Electrical Conductivity (us/cm)	pH	Ox-Red Potential (mV)	Temperature (°C)	Comments
CSM_BH02	Event 25 Oct 2020	27/10/2020	19 955	33 075	2 04	672	6 39	118 6	19 9	Light brown slightly turbid no odour/sheen
CSM_BH02	Event 26 Nov 2020	19/11/2020	19 87	33 38	2 17	763	6 38	130 1	21 8	Clear no odour/sheen
CSM_BH02	Event 27 Dec 2020	23/12/2020	20 14	33 57	4 22	368 4	6 26	137 4	20 8	Grey/brown slight sediment no odour/sheen
CSM_BH02	Event 28 Jan 2021	27/01/2021	21 455	33 22	3 23	517	6 44	136 9	21 1	Brown turbid no odour/sheen
CSM_BH02	Event 29 Feb 2021	18/02/2021	24 08	33 27	1 35	1017	7 24	74 6	21	Brown cloudy some sediments no odour/sheen
CSM_BH02	Event 30 Mar 2021	17/03/2021	26 09	33 25	2 56	600	6 91	191	20 9	Light brown moderately turbid some sediments no odour/sheen
CSM_BH04	Event 25 Oct 2020	27/10/2020	21 1	33 55	0 64	435	5 65	37 6	20 6	Brown turbid no odour/sheen
CSM_BH04	Event 26 Nov 2020	19/11/2020	21 07	33 86	0 37	491 1	5 65	21 8	21 4	Brown turbid no odour/sheen
CSM_BH04	Event 27 Dec 2020	23/12/2020	21 04	34 95	0 39	493 6	5 38	97 3	21 2	Light brown slightly turbid no odour/sheen
CSM_BH04	Event 28 Jan 2021	27/01/2021	21 63	33 37	0 64	508	6	28	21 3	Orange cloudy no odour/sheen
CSM_BH04	Event 29 Feb 2021	17/02/2021	21 795	33 65	2 13	448 7	5 62	96 3	21 5	Red brown cloudy no odour/sheen
CSM_BH04	Event 30 Mar 2021	17/03/2021	21 89	33 78	0 69	485 4	6 11	29	21 2	Light brown some sediments no odour/sheen
CSM_BH06	Event 25 Oct 2020	27/10/2020	20 43	35 39	0 55	760	6 06	29 4	22 4	Clear no odour/sheen
CSM_BH06	Event 26 Nov 2020	19/11/2020	20 34	35 39	0 22	885	5 82	5	22 8	Slightly grey cloudy no odour/sheen
CSM_BH06	Event 27 Dec 2020	22/12/2020	20 59	36 1	0 41	837	5 94	36 3	22 6	Brown turbid no odour/sheen
CSM_BH06	Event 28 Jan 2021	27/01/2021	21 85	35 65	0 12	1059	5 62	65 2	22 2	Grey slightly turbid no odour/sheen
CSM_BH06	Event 29 Feb 2021	18/02/2021	24 26	35 58	0 81	1006	6 38	22 2	23 2	Grey cloudy no odour/sheen
CSM_BH06	Event 30 Mar 2021	17/03/2021	26 37	35 8	2 44	993	6 53	123 2	22 2	Light brown slightly turbid slight sediments no odour/sheen
CSM_BH08	Event 25 Oct 2020	27/10/2020	14 47	35 01	0 4	469	6 31	48 8	20 8	Clear no odour/sheen
CSM_BH08	Event 26 Nov 2020	19/11/2020	13 21	35 47	0 34	535	5 85	1 5	21 7	Clear slightly brown no odour/sheen
CSM_BH08	Event 27 Dec 2020	21/12/2020	13 545	34 99	0 41	476 2	5 46	100 2	21 2	Brown some sediments no odour/sheen
CSM_BH08	Event 28 Jan 2021	28/01/2021	14 75	34 9	0 2	524	5 92	30	21 2	Cloudy no odour/sheen
CSM_BH08	Event 29 Feb 2021	19/02/2021	16 91	34 95	0 1	632	6 44	1 8	21 8	Brown cloudy no odour/sheen
CSM_BH08	Event 30 Mar 2021	17/03/2021	18 73	35 43	1 58	618	6 31	11 3	21 2	Red orange no odour/sheen
CSM_BH09S	Event 25 Oct 2020	28/10/2020	4 99	6 59	0 48	559	5 69	35 1	19 2	Orange brown cloudy no odour/sheen
CSM_BH09S	Event 26 Nov 2020	20/11/2020	4 82	6 57	0 22	609	5 49	82 3	20 3	Brown turbid sediments no odour/sheen
CSM_BH09S	Event 27 Dec 2020	21/12/2020	4 86	6 58	0 24	573	5 67	99 3	19 8	Orange and light brown no odour/sheen
CSM_BH10S	Event 25 Oct 2020	27/10/2020	4 21	9 805	0 59	274 2	4 42	238 1	19 4	Light brown turbid no odour/sheen
CSM_BH10S	Event 26 Nov 2020	18/11/2020	4 5	9 8	0 39	257	4 81	213 3	21 1	Brown sediments no odour/sheen
CSM_BH10S	Event 27 Dec 2020	21/12/2020	4 265	9 79	0 45	251 7	5 33	209 1	21 3	Clear no odour/sheen
CSM_BH10S	Event 28 Jan 2021	28/01/2021	4 3	9 72	0 19	266 7	5 27	236 4	21 2	Cloudy no odour/sheen
CSM_BH10S	Event 29 Feb 2021	17/02/2021	4 01	9 72	1 03	249 8	5 27	186 1	21 7	Light brown slightly turbid no odour/sheen
CSM_BH10S	Event 30 Mar 2021	17/03/2021	3 88	9 8	0 37	263 7	5 28	215 2	21 5	Light brown very turbid some sediment no odour/sheen
CSM_BH11S	Event 25 Oct 2020	26/10/2020	DRY	5 695						DRY
CSM_BH11S	Event 26 Nov 2020	18/11/2020	DRY	5 7						DRY
CSM_BH11S	Event 27 Dec 2020	22/12/2020	DRY	5 695						DRY
CSM_BH11S	Event 28 Jan 2021	29/01/2021	DRY	5 7						DRY
CSM_BH11S	Event 29 Feb 2021	17/02/2021	DRY	5 71						DRY
GASW_BH10	Event 25 Oct 2020	27/10/2020	19 085	24 86	0 37	1284	6 27	109 7	19 6	Grey cloudy strong organic odour no sheen
GASW_BH10	Event 26 Nov 2020	19/11/2020	18 98	25 12	0 4	1358	6 28	106 5	20 6	Clear no sheen organic odour
GASW_BH10	Event 27 Dec 2020	23/12/2020	19 275	24 84	0 16	1260	6 48	96 1	20 5	Grey turbid strong odour no sheen
GASW_BH10	Event 28 Jan 2021	27/01/2021	20 37	24 81	0 25	1369	6 46	54 8	20 2	Grey cloudy sediment no odour/sheen
GASW_BH10	Event 29 Feb 2021	18/02/2021	22 48	24 9	0 34	1277	6 83	83 5	21 3	Grey lots of sand/sediments organic odour no sheen
GASW_BH10	Event 30 Mar 2021	17/03/2021	23 62	24 92						Grab sample taken due to limited water
GASW_BH11	Event 25 Oct 2020	28/10/2020	7 212	8 05	5 05	292 2	5 67	78	19	Brown slightly turbid no odour/sheen
GASW_BH11	Event 26 Nov 2020	20/11/2020	7 24	8 04	3 96	335 3	5 91	69 6	20 8	Brown cloudy no sheen slight organic odour (grab sample)
GASW_BH11	Event 27 Dec 2020	21/12/2020	7 24	8 05	4 36	326 9	6 86	48 1	21 7	(grab sample)
GASW_BH11	Event 28 Jan 2021	28/01/2021	7 245	8 06	2	372 3	6 18	52 5	20 7	Brown cloudy no odour/sheen
GASW_BH11	Event 29 Feb 2021	17/02/2021	7 215	8 06	1 56	326	6 12	78 5	21 3	Brown cloudy no odour/sheen
GASW_BH11	Event 30 Mar 2021	18/03/2021	7 16	8 04	6 64	273 1	5 78	135 4	21	Grey cloudy no odour/sheen

Table B5
Summary of Groundwater Field Parameters - October 2020 to March 2021

Well ID	Sampling Event	Date Measured	SWL (mbTOC)	BOC (mbTOC)	Dissolved Oxygen (ppm)	Electrical Conductivity (us/cm)	pH	Ox-Red Potential (mV)	Temperature (°C)	Comments
GASW_BH23	Event 25 Oct 2020	26/10/2020	2 294	3 91	0 51	405 7	6 78	66	18 6	Grey cloudy hydrocarbon odour no sheen
GASW_BH23	Event 26 Nov 2020	18/11/2020	3 5	3 91						Black turbid strong hydrocarbon odour
GASW_BH23	Event 27 Dec 2020	21/12/2020	3 05	3 89	1 24	933	6 76	98 1	21 8	(grab sample)
GASW_BH23	Event 28 Jan 2021	28/01/2021	2 8	3 92	0 1	725	6 72	30 8	22 1	Clear to slightly grey some black sediments strong hydrocarbon odour no sheen
GASW_BH23	Event 29 Feb 2021	17/02/2021	2 41	3 9	0 38	767	7 06	130 1	23 4	Clear hydrocarbon odour no sheen
GASW_BH23	Event 30 Mar 2021	18/03/2021	2 025	3 91	0 04	5 73	6 97	112 2	22 6	Grey cloudy hydrocarbon odour no sheen
GASW_BH25A	Event 25 Oct 2020	28/10/2020	1 8	2 94	0 38	657	6 6	88 4	19	Grey cloudy hydrocarbon odour no sheen
GASW_BH25A	Event 27 Dec 2020	21/12/2020	1 85	2 94	0 39	721	6 91	143 5	21 9	Grey black sediments strong hydrocarbon odour no sheen
GASW_BH25A	Event 28 Jan 2021	28/01/2021	1 18	2 96	3 89	405 1	7 55	7 5	22 7	Grey cloudy some sediments hydrocarbon odour no sheen
GASW_BH25A	Event 29 Feb 2021	17/02/2021	1 11	2 955	1 85	341 5	7 38	8 7	23 3	Grey cloudy minor sediments hydrocarbon odour no sheen
GASW_BH25A	Event 30 Mar 2021	18/03/2021	0 705	2 95	2 19	318 5	7 38	107 6	22 2	Grey cloudy hydrocarbon odour no sheen
GASW_BH7	Event 25 Oct 2020	26/10/2020	DRY	6 22						DRY
GASW_BH7	Event 26 Nov 2020	18/11/2020	DRY	6 18						DRY
GASW_BH7	Event 27 Dec 2020	21/12/2020	DRY	6 18						DRY
GASW_BH7	Event 28 Jan 2021	28/01/2021	DRY	6 2						DRY
GASW_BH7	Event 29 Feb 2021	17/02/2021	DRY	6 21						DRY
GASW_BH7	Event 30 Mar 2021	17/03/2021	DRY	6 16						DRY
SRT_BH047	Event 25 Oct 2020	26/10/2020	4 525	6 96	1 42	315 5	6 87	74 2	19	Clear no odour/sheen
SRT_BH047	Event 26 Nov 2020	18/11/2020	4 48	6 98	1 89	335 2	6 31	165 8	20 1	Clear no odour/sheen
SRT_BH047	Event 27 Dec 2020	22/12/2020	3 82	6 96	2 19	270 3	6 26	164 6	19 9	Clear no odour/sheen
SRT_BH047	Event 28 Jan 2021	29/01/2021	4 262	6 97	2 71	287 5	6 05	211	20 2	Clear no odour/sheen
SRT_BH047	Event 29 Feb 2021	17/02/2021	3 7	6 975	3 38	240 7	5 76	169 1	20 7	Clear slightly cloudy no odour/sheen
SRT_BH047	Event 30 Mar 2021	18/03/2021	3 41	6 98	2 35	243	5 72	239 6	20 8	Light brown slightly turbid slight sediments no odour/sheen
SRT_BH050	Event 25 Oct 2020	26/10/2020	DRY	2 77						DRY
SRT_BH050	Event 26 Nov 2020	18/11/2020	2 59	2 77						(grab sample)
SRT_BH050	Event 27 Dec 2020	22/12/2020	2 61	2 77						(grab sample)
SRT_BH050	Event 28 Jan 2021	29/01/2021	DRY	2 77						DRY
SRT_BH050	Event 29 Feb 2021	17/02/2021	2 51	2 76						Clear no odour/sheen
SRT_BH050	Event 30 Mar 2021	18/03/2021	2 43	2 75						Grab sample taken due to limited water
SRT_BH052	Event 25 Oct 2020	26/10/2020	6 294	7 92	3 07	310 5	6 16	102	19 5	Clear no odour/sheen
SRT_BH052	Event 26 Nov 2020	18/11/2020	6 18	7 92	3 46	318	5 75	186 1	20 1	Clear no odour/sheen
SRT_BH052	Event 27 Dec 2020	22/12/2020	6 105	7 865	3 95	330 6	6 32	162 8	20 2	Clear no odour/sheen
SRT_BH052	Event 28 Jan 2021	29/01/2021	6 15	7 89	3 81	357	6 07	195 5	20 2	Clear no odour/sheen
SRT_BH052	Event 29 Feb 2021	17/02/2021	6 04	7 92	4 82	295 7	5 97	165 9	20 7	Clear no odour/sheen
SRT_BH052	Event 30 Mar 2021	17/03/2021	5 7	7 91	5 39	312 3	6 27	220 7	20 6	Clear no odour/sheen
SRT_BH059	Event 25 Oct 2020	26/10/2020	5 446	6 001	6 13	305 9	6 98	82 5	18 7	Brown cloudy no odour/sheen
SRT_BH059	Event 26 Nov 2020	18/11/2020	4 915	6	4 57	332 1	6 51	165 8	20	Clear no odour/sheen

Appendix B
Table B6
Groundwater Aggressivity Comparison Table - Steel Piles
October 2020 to March 2021

Well ID	Date Measured	pH (field)	pH (lab)	chloride (mg/L)	soil condition A	soil condition B	aquifer
					high permerability soil (sand, gravel) that are in groundwater	low permeability soils (silt and clay) or all soils above groundwater	Table 6.5.2 C in AS2159
CSM_BH02	27/10/2020	6.39	7.1	110	non-aggressive	non-aggressive	deep
CSM_BH02	19/11/2020	6.38	7.8	120	non-aggressive	non-aggressive	deep
CSM_BH02	23/12/2020	6.26	6.6	44	non-aggressive	non-aggressive	deep
CSM_BH02	27/01/2021	6.44	7.1	51	non-aggressive	non-aggressive	deep
CSM_BH02	18/02/2021	7.24	7.2	180	non-aggressive	non-aggressive	deep
CSM_BH02	17/03/2021	6.91	7.6	83	non-aggressive	non-aggressive	deep
CSM_BH04	27/10/2020	5.65	6.4	120	non-aggressive	non-aggressive	off-site deep
CSM_BH04	19/11/2020	5.65	6.8	84	non-aggressive	non-aggressive	off-site deep
CSM_BH04	23/12/2020	5.38	6	110	non-aggressive	non-aggressive	off-site deep
CSM_BH04	27/01/2021	6	7.1	110	non-aggressive	non-aggressive	off-site deep
CSM_BH04	18/02/2021	5.62	5.7	83	non-aggressive	non-aggressive	off-site deep
CSM_BH04	17/03/2021	6.11	7.3	69	non-aggressive	non-aggressive	off-site deep
CSM_BH06	27/10/2020	6.06	6.6	310	non-aggressive	non-aggressive	off-site deep
CSM_BH06	19/11/2020	5.82	6.6	270	non-aggressive	non-aggressive	off-site deep
CSM_BH06	23/12/2020	5.94	6.4	240	non-aggressive	non-aggressive	off-site deep
CSM_BH06	27/01/2021	5.62	6.6	480	non-aggressive	non-aggressive	off-site deep
CSM_BH06	18/02/2021	6.38	6.4	410	non-aggressive	non-aggressive	off-site deep
CSM_BH06	17/03/2021	6.53	7.4	220	non-aggressive	non-aggressive	off-site deep
CSM_BH08	27/10/2020	6.31	5.6	110	non-aggressive	non-aggressive	off-site deep
CSM_BH08	19/11/2020	5.85	6.6	95	non-aggressive	non-aggressive	off-site deep
CSM_BH08	23/12/2020	5.46	6.1	92	non-aggressive	non-aggressive	off-site deep
CSM_BH08	27/01/2021	5.92	7.2	75	non-aggressive	non-aggressive	off-site deep
CSM_BH08	18/02/2021	6.44	6.8	130	non-aggressive	non-aggressive	off-site deep
CSM_BH08	17/03/2021	6.31	7.4	100	non-aggressive	non-aggressive	off-site deep
CSM_BH09S	28/10/2020	5.69	6.3	69	non-aggressive	non-aggressive	shallow
CSM_BH09S	20/11/2020	5.49	6.4	55	non-aggressive	non-aggressive	shallow
CSM_BH09S	21/12/2020	5.67	6.3	60	non-aggressive	non-aggressive	shallow
CSM_BH10S	27/10/2020	4.42	5.1	39	Mild	non-aggressive	shallow
CSM_BH10S	19/11/2020	4.81	6.2	51	Mild	non-aggressive	shallow
CSM_BH10S	23/12/2020	5.33	5.9	25	non-aggressive	non-aggressive	shallow
CSM_BH10S	27/01/2021	5.27	6.2	22	non-aggressive	non-aggressive	off-site shallow
CSM_BH10S	18/02/2021	5.27	5.6	47	non-aggressive	non-aggressive	off-site shallow
CSM_BH10S	17/03/2021	5.28	6.7	23	non-aggressive	non-aggressive	off-site shallow
GASW_BH10	27/10/2020	6.27	6.9	310	non-aggressive	non-aggressive	off-site shallow
GASW_BH10	19/11/2020	6.28	7.7	170	non-aggressive	non-aggressive	off-site shallow
GASW_BH10	23/12/2020	6.48	6.9	210	non-aggressive	non-aggressive	off-site shallow
GASW_BH10	27/01/2021	6.46	7.4	200	-	-	shallow
GASW_BH10	18/02/2021	6.83	6.8	200	non-aggressive	non-aggressive	deep
GASW_BH10	17/03/2021	-	7.9	170	non-aggressive	non-aggressive	deep
GASW_BH11	27/10/2020	5.67	6.6	74	non-aggressive	non-aggressive	deep
GASW_BH11	19/11/2020	5.91	7.1	76	non-aggressive	non-aggressive	deep
GASW_BH11	23/12/2020	6.86	6.6	47	non-aggressive	non-aggressive	deep
GASW_BH11	27/01/2021	6.18	8	34	non-aggressive	non-aggressive	deep
GASW_BH11	18/02/2021	6.12	6.6	50	non-aggressive	non-aggressive	shallow
GASW_BH11	17/03/2021	5.78	7.4	34	non-aggressive	non-aggressive	shallow
GASW_BH23	27/10/2020	6.78	7.2	29	non-aggressive	non-aggressive	shallow
GASW_BH23	19/11/2020	-	7.8	24	non-aggressive	non-aggressive	shallow
GASW_BH23	23/12/2020	6.76	7.4	26	non-aggressive	non-aggressive	shallow
GASW_BH23	27/01/2021	6.72	8.2	55	non-aggressive	non-aggressive	shallow
GASW_BH23	18/02/2021	7.06	7.1	15	non-aggressive	non-aggressive	shallow
GASW_BH23	17/03/2021	6.97	8	32	-	-	shallow

Appendix B
Table B6
Groundwater Aggressivity Comparison Table - Steel Piles
October 2020 to March 2021

Well ID	Date Measured	pH (field)	pH (lab)	chloride (mg/L)	soil condition A	soil condition B	aquifer
GASW_BH25a	27/10/2020	6.6	7.3	27	non-aggressive	non-aggressive	shallow
GASW_BH25a	19/11/2020	-	7.4	62	non-aggressive	non-aggressive	shallow
GASW_BH25a	23/12/2020	6.91	7.5	20	non-aggressive	non-aggressive	shallow
GASW_BH25a	27/01/2021	7.55	8.2	67	-	-	shallow
GASW_BH25a	18/02/2021	7.38	7.6	28	non-aggressive	non-aggressive	shallow
GASW_BH25a	17/03/2021	7.38	7.8	26	non-aggressive	non-aggressive	shallow
SRT_BH047	27/10/2020	6.87	7.6	41	non-aggressive	non-aggressive	shallow
SRT_BH047	19/11/2020	6.31	6.9	57	non-aggressive	non-aggressive	shallow
SRT_BH047	23/12/2020	6.26	7.3	24	non-aggressive	non-aggressive	shallow
SRT_BH047	27/01/2021	6.05	7.4	43	non-aggressive	non-aggressive	shallow
SRT_BH047	18/02/2021	5.76	6.2	37	-	-	shallow
SRT_BH047	17/03/2021	5.72	6.7	84	-	-	shallow
SRT_BH050	27/10/2020	-	-	-	-	-	shallow
SRT_BH050	19/11/2020	-	-	-	-	-	shallow
SRT_BH050	23/12/2020	-	-	-	-	-	shallow
SRT_BH050	27/01/2021	-	-	-	-	-	shallow
SRT_BH050	18/02/2021	-	5.2	25	non-aggressive	non-aggressive	shallow
SRT_BH050	17/03/2021	-	5.2	49	non-aggressive	non-aggressive	shallow
SRT_BH052	27/10/2020	6.16	6.9	69	non-aggressive	non-aggressive	shallow
SRT_BH052	19/11/2020	5.75	6.7	80	non-aggressive	non-aggressive	shallow
SRT_BH052	23/12/2020	6.32	6.9	50	non-aggressive	non-aggressive	shallow
SRT_BH052	27/01/2021	6.07	7.6	46	non-aggressive	non-aggressive	shallow
SRT_BH052	18/02/2021	5.97	6.3	49	non-aggressive	non-aggressive	shallow
SRT_BH052	17/03/2021	6.27	7.1	42	non-aggressive	non-aggressive	shallow
SRT_BH059	27/10/2020	6.98	7.6	14	-	-	shallow
SRT_BH059	19/11/2020	6.51	7.9	44	-	-	shallow
SRT_BH059	23/12/2020	-	-	-	-	-	shallow
SRT_BH059	27/01/2021	-	-	-	-	-	shallow
SRT_BH059	18/02/2021	-	-	-	non-aggressive	non-aggressive	shallow
SRT_BH059	17/03/2021	-	-	-	non-aggressive	non-aggressive	shallow

Appendix B
Table B7
Groundwater Aggressivity Comparison Table - Concrete Piles
October 2020 to March 2021

Well ID	Date Measured	pH (field)	pH (lab)	Sulfate (mg/L)	chloride (mg/L)	soil condition A	soil condition B	aquifer
						high permerability soil (sand, gravel) that are in groundwater	low permeability soils (silt and clay) or all soils above groundwater	Table 6.5.2 C in AS2159
CSM_BH02	27/10/2020	6.39	7.1	46	110	mild	non-aggressive	deep
CSM_BH02	19/11/2020	6.38	7.8	31	120	mild	non-aggressive	deep
CSM_BH02	23/12/2020	6.26	6.6	38	44	mild	non-aggressive	deep
CSM_BH02	27/01/2021	6.44	7.1	45	51	mild	non-aggressive	deep
CSM_BH02	18/02/2021	7.24	7.2	27	180	mild	non-aggressive	deep
CSM_BH02	17/03/2021	6.91	7.6	36	83	mild	non-aggressive	deep
CSM_BH04	27/10/2020	5.65	6.4	50	120	mild	non-aggressive	off-site deep
CSM_BH04	19/11/2020	5.65	6.8	25	84	mild	non-aggressive	off-site deep
CSM_BH04	23/12/2020	5.38	6	29	110	moderate	mild	off-site deep
CSM_BH04	27/01/2021	6	7.1	53	110	mild	non-aggressive	off-site deep
CSM_BH04	18/02/2021	5.62	5.7	44	83	mild	non-aggressive	off-site deep
CSM_BH04	17/03/2021	6.11	7.3	56	69	mild	non-aggressive	off-site deep
CSM_BH06	27/10/2020	6.06	6.6	37	310	mild	non-aggressive	off-site deep
CSM_BH06	19/11/2020	5.82	6.6	25	270	mild	non-aggressive	off-site deep
CSM_BH06	23/12/2020	5.94	6.4	24	240	mild	non-aggressive	off-site deep
CSM_BH06	27/01/2021	5.62	6.6	44	480	mild	non-aggressive	off-site deep
CSM_BH06	18/02/2021	6.38	6.4	25	410	mild	non-aggressive	off-site deep
CSM_BH06	17/03/2021	6.53	7.4	33	220	mild	non-aggressive	off-site deep
CSM_BH08	27/10/2020	6.31	5.6	60	110	mild	non-aggressive	off-site deep
CSM_BH08	19/11/2020	5.85	6.6	32	95	mild	non-aggressive	off-site deep
CSM_BH08	23/12/2020	5.46	6.1	50	92	moderate	mild	off-site deep
CSM_BH08	27/01/2021	5.92	7.2	57	75	mild	non-aggressive	off-site deep
CSM_BH08	18/02/2021	6.44	6.8	43	130	mild	non-aggressive	off-site deep
CSM_BH08	17/03/2021	6.31	7.4	46	100	mild	non-aggressive	off-site deep
CSM_BH09S	28/10/2020	5.69	6.3	190	69	mild	non-aggressive	shallow
CSM_BH09S	20/11/2020	5.49	6.4	120	55	moderate	mild	shallow
CSM_BH09S	21/12/2020	5.67	6.3	170	60	mild	non-aggressive	shallow
CSM_BH10S	27/10/2020	4.42	5.1	100	39	severe	moderate	off-site shallow
CSM_BH10S	19/11/2020	4.81	6.2	41	51	severe	moderate	off-site shallow
CSM_BH10S	23/12/2020	5.33	5.9	58	25	mild	non-aggressive	off-site shallow
CSM_BH10S	27/01/2021	5.27	6.2	73	22	moderate	mild	off-site shallow
CSM_BH10S	18/02/2021	5.27	5.6	55	47	moderate	mild	off-site shallow
CSM_BH10S	17/03/2021	5.28	6.7	72	23	moderate	mild	off-site shallow
GASW_BH10	27/10/2020	6.27	6.9	10	310	mild	non-aggressive	deep
GASW_BH10	19/11/2020	6.28	7.7	<5	170	mild	non-aggressive	deep
GASW_BH10	23/12/2020	6.48	6.9	2.1	210	mild	non-aggressive	deep
GASW_BH10	27/01/2021	6.46	7.4	<5	200	mild	non-aggressive	deep
GASW_BH10	18/02/2021	6.83	6.8	<5	200	mild	non-aggressive	deep
GASW_BH10	17/03/2021	-	7.9	<5	170	mild	non-aggressive	deep
GASW_BH11	27/10/2020	5.67	6.6	73	74	mild	non-aggressive	shallow
GASW_BH11	19/11/2020	5.91	7.1	34	76	mild	non-aggressive	shallow
GASW_BH11	23/12/2020	6.86	6.6	52	47	mild	non-aggressive	shallow
GASW_BH11	27/01/2021	6.18	8	47	34	mild	non-aggressive	shallow
GASW_BH11	18/02/2021	6.12	6.6	26	50	mild	non-aggressive	shallow
GASW_BH11	17/03/2021	5.78	7.4	31	34	mild	non-aggressive	shallow
GASW_BH23	27/10/2020	6.78	7.2	240	29	mild	non-aggressive	shallow
GASW_BH23	19/11/2020	-	7.8	69	24	-	-	shallow
GASW_BH23	23/12/2020	6.76	7.4	190	26	mild	non-aggressive	shallow
GASW_BH23	27/01/2021	6.72	8.2	160	55	mild	non-aggressive	shallow
GASW_BH23	18/02/2021	7.06	7.1	170	15	mild	non-aggressive	shallow
GASW_BH23	17/03/2021	6.97	8	98	32	-	-	shallow

Appendix B
Table B7
Groundwater Aggressivity Comparison Table - Concrete Piles
October 2020 to March 2021

Well ID	Date Measured	pH (field)	pH (lab)	Sulfate (mg/L)	chloride (mg/L)	soil condition A	soil condition B	aquifer
GASW_BH25a	27/10/2020	6.6	7.3	380	27	mild	non-aggressive	shallow
GASW_BH25a	19/11/2020	-	7.4	110	62	mild	non-aggressive	shallow
GASW_BH25a	23/12/2020	6.91	7.5	240	20	mild	non-aggressive	shallow
GASW_BH25a	27/01/2021	7.55	8.2	60	67	mild	non-aggressive	shallow
GASW_BH25a	18/02/2021	7.38	7.6	34	28	mild	non-aggressive	shallow
GASW_BH25a	17/03/2021	7.38	7.8	41	26	mild	non-aggressive	shallow
SRT_BH047	27/10/2020	6.87	7.6	47	41	mild	non-aggressive	shallow
SRT_BH047	19/11/2020	6.31	6.9	15	57	mild	non-aggressive	shallow
SRT_BH047	23/12/2020	6.26	7.3	14	24	mild	non-aggressive	shallow
SRT_BH047	27/01/2021	6.05	7.4	29	43	mild	non-aggressive	shallow
SRT_BH047	18/02/2021	5.76	6.2	14	37	mild	non-aggressive	shallow
SRT_BH047	17/03/2021	5.72	6.7	28	84	mild	non-aggressive	shallow
SRT_BH050	27/10/2020	-	-	-	-	very severe	severe	shallow
SRT_BH050	19/11/2020	-	-	-	-	severe	moderate	shallow
SRT_BH050	23/12/2020	-	-	-	-	-	-	shallow
SRT_BH050	27/01/2021	-	-	-	-	-	-	shallow
SRT_BH050	18/02/2021	-	5.2	41	25	-	-	shallow
SRT_BH050	17/03/2021	-	5.2	56	49	-	-	shallow
SRT_BH052	27/10/2020	6.16	6.9	56	69	mild	non-aggressive	shallow
SRT_BH052	19/11/2020	5.75	6.7	30	80	mild	non-aggressive	shallow
SRT_BH052	23/12/2020	6.32	6.9	34	50	mild	non-aggressive	shallow
SRT_BH052	27/01/2021	6.07	7.6	55	46	mild	non-aggressive	shallow
SRT_BH052	18/02/2021	5.97	6.3	26	49	mild	non-aggressive	shallow
SRT_BH052	17/03/2021	6.27	7.1	33	42	mild	non-aggressive	shallow
SRT_BH059	27/10/2020	6.98	7.6	44	14	mild	non-aggressive	shallow
SRT_BH059	19/11/2020	6.51	7.9	27	44	mild	non-aggressive	shallow
SRT_BH059	23/12/2020	-	-	-	-	mild	non-aggressive	shallow
SRT_BH059	27/01/2021	-	-	-	-	mild	non-aggressive	shallow
SRT_BH059	18/02/2021	-	-	-	-	mild	non-aggressive	shallow
SRT_BH059	17/03/2021	-	-	-	-	mild	non-aggressive	shallow

Field Duplicates (water)
Filter: [Sampled_Date_Time] >= '01 Oct 2020' and [Sampled_Da

Lab Re ort umber	765715	765715		758435	758435		753369	753369		770782	770782		775277	775277		781353	781353	
Field ID	CSM_BH08	BD01	RPD	CSM_BH04	QC02	RPD	CSM_BH08	QC01	RPD	CSM_BH02	QC02	RPD	CSM_BH04	QC01	RPD	CSM_BH08	QC01	RPD
Sam led Date Time	21/12/2020	21/12/2020		19/11/2020	19/11/2020		27/10/2020	27/10/2020		27/01/2021	27/01/2021		17/02/2021	17/02/2021		17/03/2021	17/03/2021	
Chem Grou	**Chem ame**	**nits**	**L**															
Metals	Arsenic (Filtered)	mg/L	0.001	<0.001	<0.001	0	0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0
	Cadmium (Filtered)	mg/L	0.0002 : 0.0001 (Interlab)	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0	<0.0002	<0.0002	0
	Chromium (III+VI) (Filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0	0.001	0.001	0	<0.001	0.002	67	0.001	<0.001	0	<0.001	<0.001	0
	Copper (Filtered)	mg/L	0.001	0.002	0.001	67	0.003	0.003	0	0.008	0.009	12	<0.001	<0.001	0	0.005	0.002	86	0.006	<0.001	143
	Lead (Filtered)	mg/L	0.001	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0
	Mercury (Filtered)	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0
	Nickel (Filtered)	mg/L	0.001	0.024	0.023	4	0.01	0.01	0	0.02	0.022	10	0.003	0.003	0	0.024	0.023	4	0.005	0.005	0
	Zinc (Filtered)	mg/L	0.005	0.045	0.045	0	**0 0**	**0 0**		0.21	0.24	13	0.015	0.011	31	0.016	0.013	21	0.024	0.024	0
BTEXN	Benzene	µg/l	1	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0
	Toluene	µg/l	1 : 2 (Interlab)	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0
	Ethylbenzene	µg/l	1 : 2 (Interlab)	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0
	Xylene (o)	µg/l	1 : 2 (Interlab)	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0
	Xylene (m & p)	µg/l	2	<2	<2	0	<2	<2	0	<2	<2	0	<2	<2	0	<2	<2	0	<2	<2	0
	Xylene Total	µg/l	3 : 2 (Interlab)	<3	<3	0	<3	<3	0	<3	<3	0	<3	<3	0	<3	<3	0	<3	<3	0
	Naphthalene (BTEXN suite)	µg/l	10 : 5 (Interlab)	<10	<10	0	<10	<10	0	<10	<10	0	<10	<10	0	<10	<10	0	<10	<10	0
TRH - NEPM 2013	F1 (C6-C10 minus BTEX)	µg/l	20	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0
	C6-C10 Fraction	µg/l	20	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0
	F2 (>C10-C16 minus Naphthalene)	µg/l	50 : 100 (Interlab)	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0	70	<50	33	<50	<50	0
	>C10-C16 Fraction	µg/l	50 : 100 (Interlab)	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0	70	<50	33	<50	<50	0
	F3 (>C16-C34 Fraction)	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	200	<100	67	<100	<100	0
	F4 (>C34-C40 Fraction)	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	200	<100	67	<100	<100	0
	>C10-C40 (Sum of Total)	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	470	<100	130	<100	<100	0
TRH - NEPM 1999	C6-C9 Fraction	µg/l	20	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0
	C10-C14 Fraction	µg/l	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0	90	<50	57	<50	<50	0
	C15-C28 Fraction	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0
	C29-C36 Fraction	µg/l	100 : 50 (Interlab)	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	200	<100	67	<100	<100	0
	C10-C36 (Sum of Total)	µg/l	100 : 50 (Interlab)	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	290	<100	97	<100	<100	0
PAHs - standard 16	Acenaphthene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Acenaphthylene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Anthracene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	0.04	120	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Benz(a)anthracene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	**0 0**	**0 1**		<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Benzo(a)pyrene	µg/l	0.01 : 0.05 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.17	0.17	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Benzo[b+j]fluoranthene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.15	0.15	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Benzo(k)fluoranthene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.14	0.15	7	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Benzo(g,h,i)perylene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	**0 01**	**0 1**	**1**	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Chrysene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.15	0.18	18	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Dibenz(a,h)anthracene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	0.03	100	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Fluoranthene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.17	0.15	13	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Fluorene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Indeno(1,2,3-c,d)pyrene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	**0 01**	**0 11**	**1**	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Naphthalene-PAH	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	0.03	100	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Phenanthrene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.04	0.08	67	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	Pyrene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	0.17	0.16	6	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0
	PAHs (Sum of total) - Lab calc	µg/l	0.01 : 0.05 (Interlab)	<0.01	<0.01	0	<0.01	<0.01	0	1.08	1.59	38	<0.01	<0.01	0	<0.01	<0.01	0	<0.01	<0.01	0

*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 200 (1-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

endi B
Table B8
Calculated Groundwater RPD Tables

Field Duplicates (water)
Filter: [Sampled_Date_Time] >= '01 Oct 2020' and [Sampled_Da

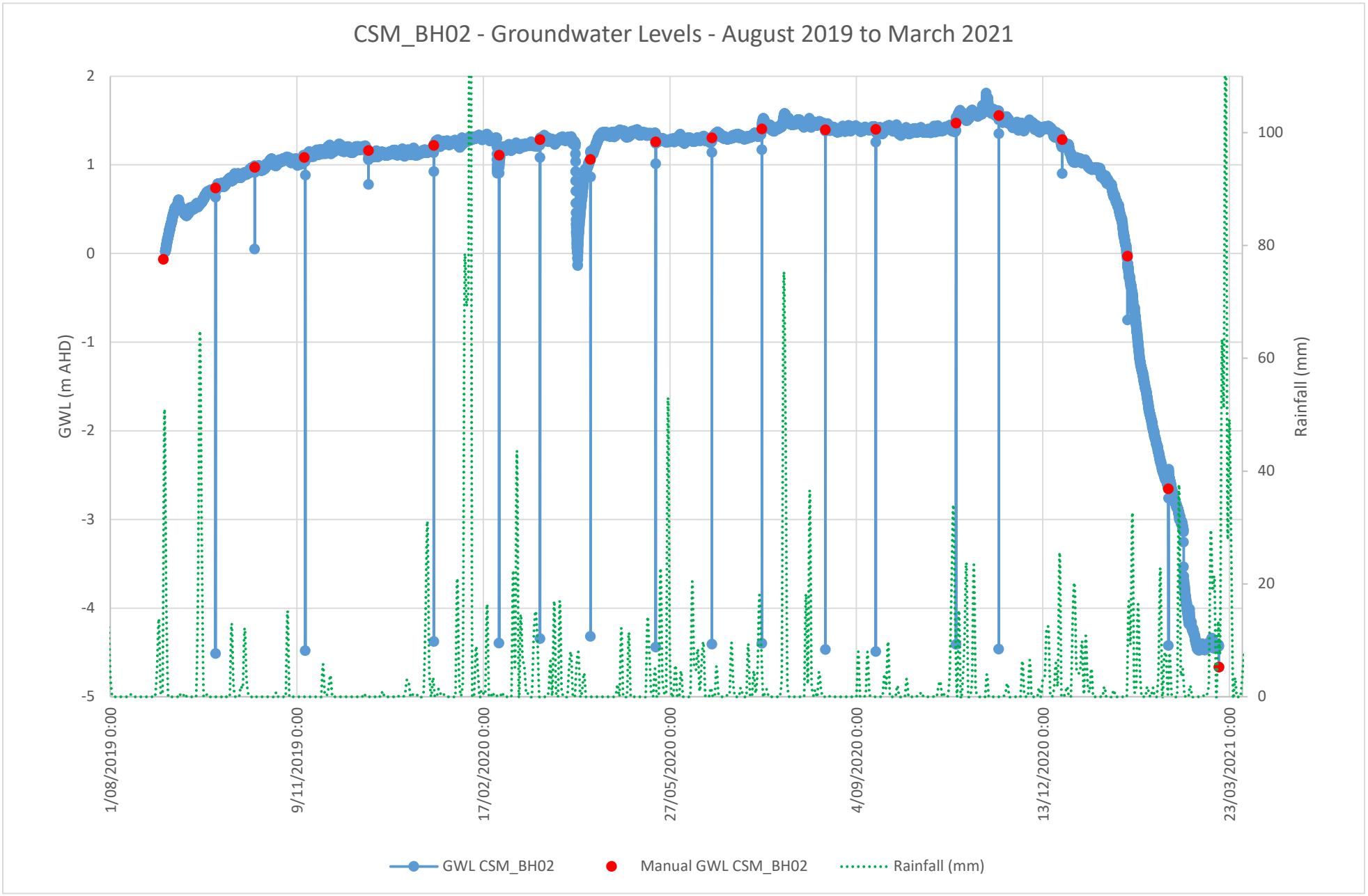
Lab Re ort umber				753369	ES2037870		758435	ES2041428		765715	ES2100056		770782	ES2102832		775277	ES2105795		781353	ES2109792	
Field ID				CSM_BH08	QC02	RPD	CSM_BH10S	QC01	RPD	CSM_BH08	SD01	RPD	CSM_BH04	QC01	RPD	CSM_BH10S	QC02	RPD	CSM_BH04	QC02	RPD
Sam led Date Time				27/10/2020	27/10/2020		18/11/2020	18/11/2020		21/12/2020	21/12/2020		27/01/2021	27/01/2021		17/02/2021	17/02/2021		17/03/2021	17/03/2021	
Chem Grou	**Chem ame**	**nits**	**L**																		
Metals	Arsenic (Filtered)	mg/L	0.001	<0.001	<0.001	0	0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0
	Cadmium (Filtered)	mg/L	0.0002 : 0.0001 (Interlab)	<0.0002	0.0002	0	<0.0002	0.0004	67	<0.0002	<0.0001	0	<0.0002	<0.0001	0	<0.0002	<0.0001	0	<0.0002	<0.0001	0
	Chromium (III+VI) (Filtered)	mg/L	0.001	0.001	0.001	0	0.003	<0.001	100	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0	<0.001	<0.001	0
	Copper (Filtered)	mg/L	0.001	**0 00**	**0 14**	**1**	**0 004**	**0 0**	**1 2**	0.002	0.001	67	<0.001	0.008	156	**0 1**	**0 004**	**1 1**	0.002	<0.001	67
	Lead (Filtered)	mg/L	0.001	<0.001	0.008	156	0.004	0.003	29	<0.001	<0.001	0	<0.001	<0.001	0	0.002	<0.001	67	<0.001	<0.001	0
	Mercury (Filtered)	mg/L	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0	<0.0001	<0.0001	0
	Nickel (Filtered)	mg/L	0.001	0.02	0.03	40	**0 002**	**0 01**	**14**	0.024	0.022	9	0.019	0.014	30	**0 012**	**0 002**	**14**	0.026	0.023	12
	Zinc (Filtered)	mg/L	0.005	0.21	0.312	39	**0 00**	**0 1**	**1**	0.045	0.048	6	0.034	0.028	19	**0 0**	**0 00**	**1**	0.027	0.023	16
BTEXN	Benzene	µg/l	1	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0	<1	<1	0
	Toluene	µg/l	1 : 2 (Interlab)	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0
	Ethylbenzene	µg/l	1 : 2 (Interlab)	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0
	Xylene (o)	µg/l	1 : 2 (Interlab)	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0	<1	<2	0
	Xylene (m & p)	µg/l	2	<2	<2	0	<2	<2	0	<2	<2	0	<2	<2	0	<2	<2	0	<2	<2	0
	Xylene Total	µg/l	3 : 2 (Interlab)	<3	<2	0	<3	<2	0	<3	<2	0	<3	<2	0	<3	<2	0	<3	<2	0
	Naphthalene (BTEXN suite)	µg/l	10 : 5 (Interlab)	<10	<5	0	<10	<5	0	<10	<5	0	<10	<5	0	<10	<5	0	<10	<5	0
TRH - NEPM 2013	F1 (C6-C10 minus BTEX)	µg/l	20	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0
	C6-C10 Fraction	µg/l	20	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0
	F2 (>C10-C16 minus Naphthalene)	µg/l	50 : 100 (Interlab)	<50	<100	0	<50	<100	0	<50	<100	0	<50	<100	0	150	<100	40	<50	<100	0
	>C10-C16 Fraction	µg/l	50 : 100 (Interlab)	<50	<100	0	<50	<100	0	<50	<100	0	<50	<100	0	150	<100	40	<50	<100	0
	F3 (>C16-C34 Fraction)	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	200	<100	67	<100	<100	0
	F4 (>C34-C40 Fraction)	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	200	<100	67	<100	<100	0
	>C10-C40 (Sum of Total)	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	550	<100	138	<100	<100	0
TRH - NEPM 1999	C6-C9 Fraction	µg/l	20	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0	<20	<20	0
	C10-C14 Fraction	µg/l	50	<50	<50	0	<50	<50	0	<50	<50	0	<50	<50	0	190	<50	117	<50	<50	0
	C15-C28 Fraction	µg/l	100	<100	<100	0	<100	<100	0	<100	<100	0	<100	<100	0	100	<100	0	<100	<100	0
	C29-C36 Fraction	µg/l	100 : 50 (Interlab)	<100	<50	0	<100	<50	0	<100	<50	0	<100	<50	0	200	<50	120	<100	<50	0
	C10-C36 (Sum of Total)	µg/l	100 : 50 (Interlab)	<100	<50	0	<100	<50	0	<100	<50	0	<100	<50	0	490	<50	163	<100	<50	0
PAHs - standard 16	Acenaphthene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Acenaphthylene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Anthracene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Benz(a)anthracene	µg/l	0.01 : 0.1 (Interlab)	0.09	0.2	76	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Benzo(a)pyrene	µg/l	0.01 : 0.05 (Interlab)	**0 1**	**0**	**4**	<0.01	<0.05	0	<0.01			<0.01	<0.05	0	<0.01	<0.05	0	<0.01	<0.05	0
	Benzo[b+j]fluoranthene	µg/l	0.01 : 0.1 (Interlab)	**0 1**	**0 4**	**1**	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Benzo(k)fluoranthene	µg/l	0.01 : 0.1 (Interlab)	0.14	0.1	33	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Benzo(g,h,i)perylene	µg/l	0.01 : 0.1 (Interlab)	<0.01	0.3	187	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Chrysene	µg/l	0.01 : 0.1 (Interlab)	0.15	0.2	29	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Dibenz(a,h)anthracene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Fluoranthene	µg/l	0.01 : 0.1 (Interlab)	**0 1**	**0**		<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Fluorene	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Indeno(1,2,3-c,d)pyrene	µg/l	0.01 : 0.1 (Interlab)	<0.01	0.2	181	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Naphthalene-PAH	µg/l	0.01 : 0.1 (Interlab)	<0.01	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	0.02	<0.1	0	<0.01	<0.1	0
	Phenanthrene	µg/l	0.01 : 0.1 (Interlab)	0.04	<0.1	0	<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	Pyrene	µg/l	0.01 : 0.1 (Interlab)	**0 1**	**0**		<0.01	<0.1	0	<0.01			<0.01	<0.1	0	<0.01	<0.1	0	<0.01	<0.1	0
	PAHs (Sum of total) - Lab calc	µg/l	0.01 : 0.05 (Interlab)	**1 0**	**2**	**2**	<0.01	<0.05	0	<0.01			<0.01	<0.05	0	0.02	<0.05	0	<0.01	<0.05	0

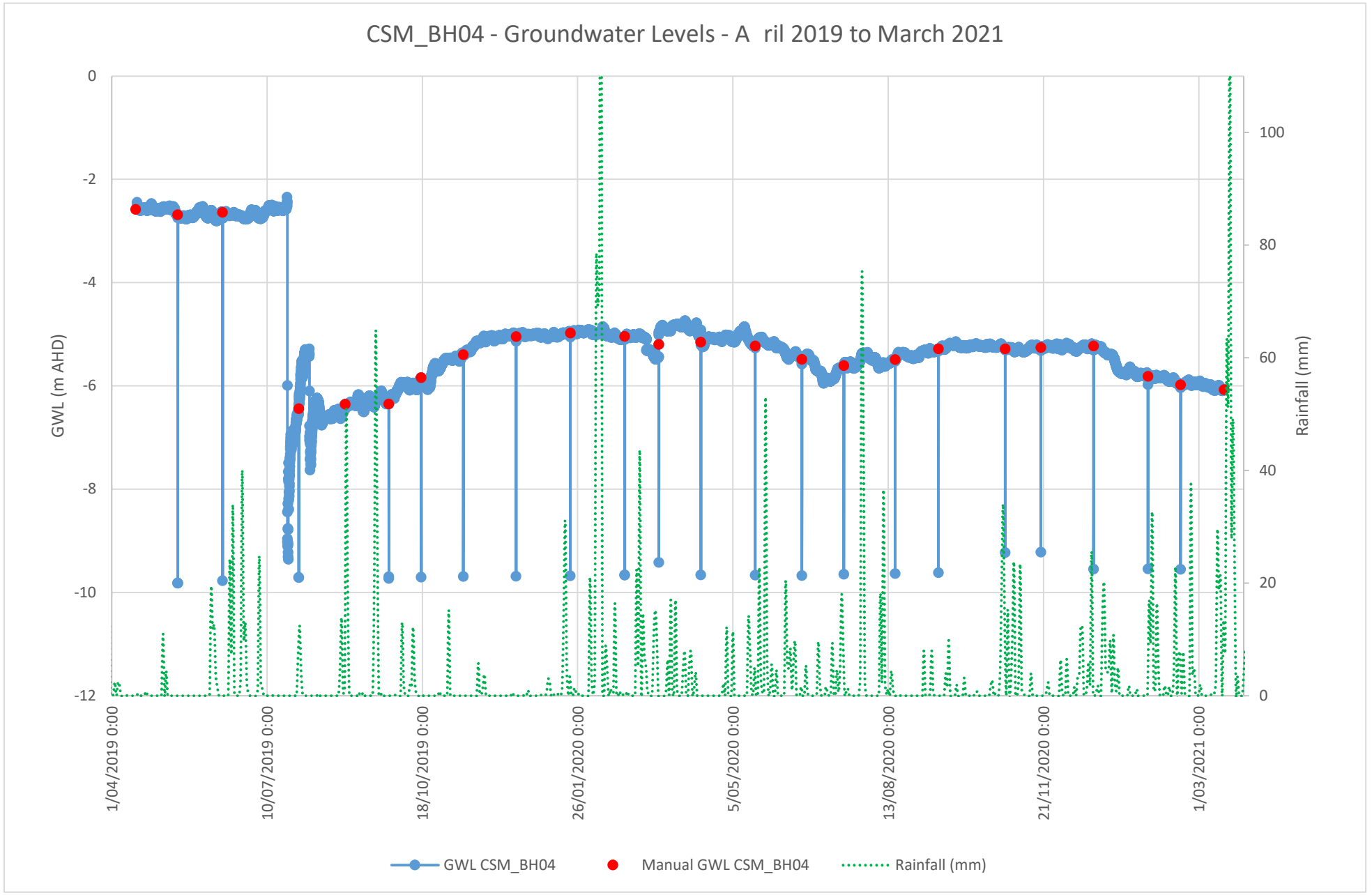
*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 200 (1-10 x EQL); 5
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratorie

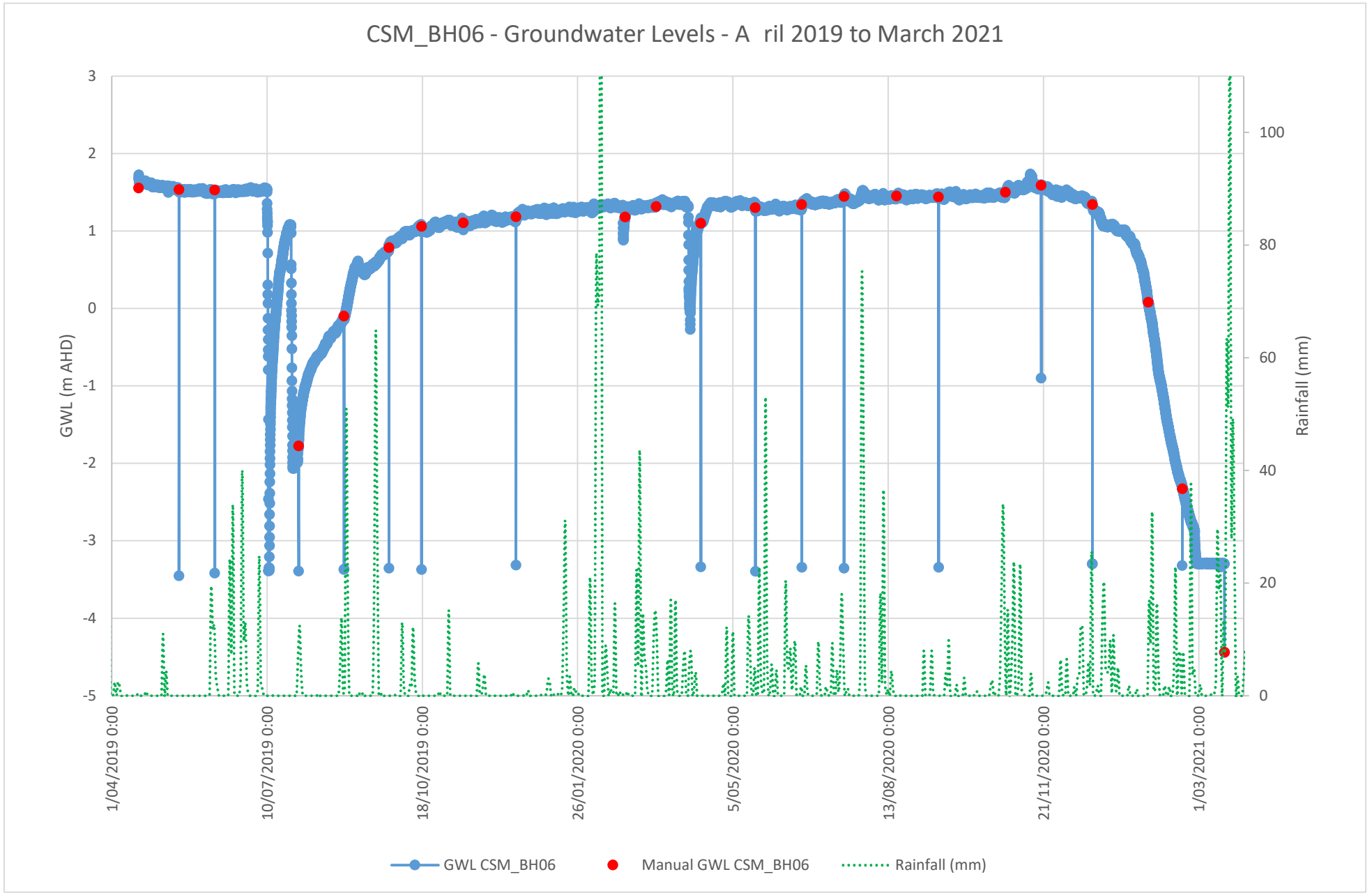
endi B
Table B9
Rinsates Tri Blan s and Tri S i e Results

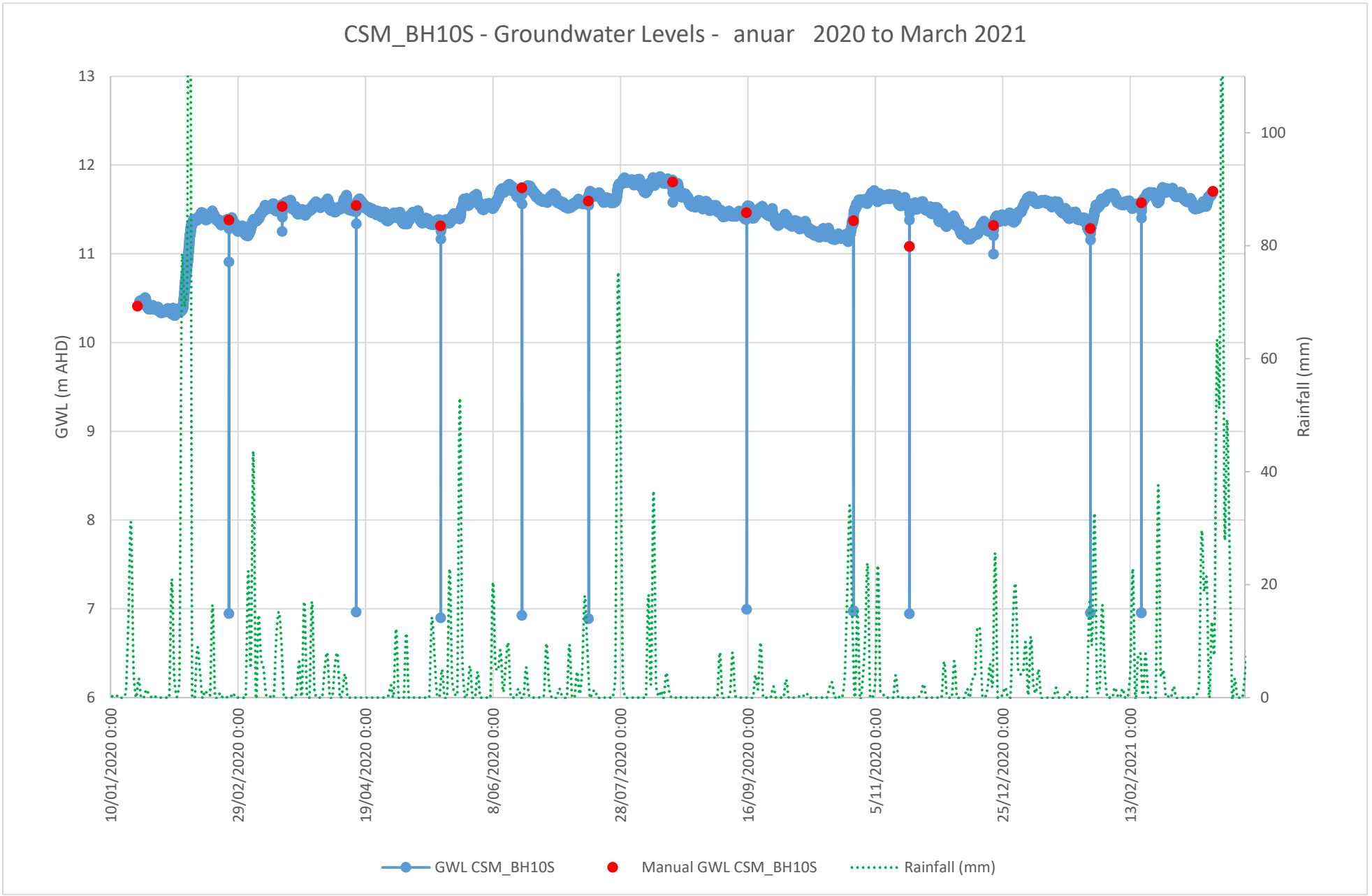
	Metals								BTEXN							H - NEPM 20		TRH - NEPM 1999
	Arsenic	Cadmium	Chromium (III+VI)	Copper	Lead	Mercury	Nickel	Zinc	Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylene (m & p)	Xylene Total	Naphthalene (BTEXN suite)	F1 (C6-C10 minus BTEX)	C6-C10 Fraction	C6-C9 Fraction
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	0.001	0.0002	0.001	0.001	0.001	0.0001	0.001	0.005	1	1	1	1	2	3	10	20	20	20
Field_ID	**Sampled_Date_Time**	**Sample_Type**	**Lab_Report_Number**															
RB01	26/10/2020	Rinsate	753369	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-
RB01	19/11/2020	Rinsate	758435	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-
RB01	23/12/2020	Rinsate	765715	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-
RB01	28/01/2021	Rinsate	770782	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-
RB01	17/02/2021	Rinsate	775277	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-
RB01	18/03/2021	Rinsate	781353	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.0001	<0.001	<0.005	-	-	-	-	-	-	-	-	-
TRIP BLANK	26/10/2020	Trip_B	753369	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	<10	<20	<20	<20
TRIP BLANK	19/11/2020	Trip_B	758435	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	<10	<20	<20	<20
TRIP BLANK	21/12/2020	Trip_B	765715	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	<10	<20	<20	<20
TRIP BLANK	27/01/2021	Trip_B	770782	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	<10	<20	<20	<20
TRIP BLANK	17/02/2021	Trip_B	775277	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	-	-	-	-
TRIP BLANK	17/03/2021	Trip_B	781353	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<2	<3	<10	<20	<20	<20
TRIP SPIKE	26/10/2020	Trip_S	753369	-	-	-	-	-	-	-	-	100%	100%	100%	100%	110%	100%	94%	-	92%	100%
TRIP SPIKE	19/11/2020	Trip_S	758435	-	-	-	-	-	-	-	-	100%	97%	93%	89%	99%	93%	99%	-	75%	73%
TRIP SPIKE	21/12/2020	Trip_S	765715	-	-	-	-	-	-	-	-	97%	92%	91%	86%	99%	90%	93%	-	79%	79%
TRIP SPIKE	27/01/2021	Trip_S	770782	-	-	-	-	-	-	-	-	91%	94%	83%	85%	90%	86%	83%	-	71%	75%
TRIP SPIKE	17/02/2021	Trip_S	775277	-	-	-	-	-	-	-	-	100%	110%	100%	99%	110%	100%	-	-	-	-

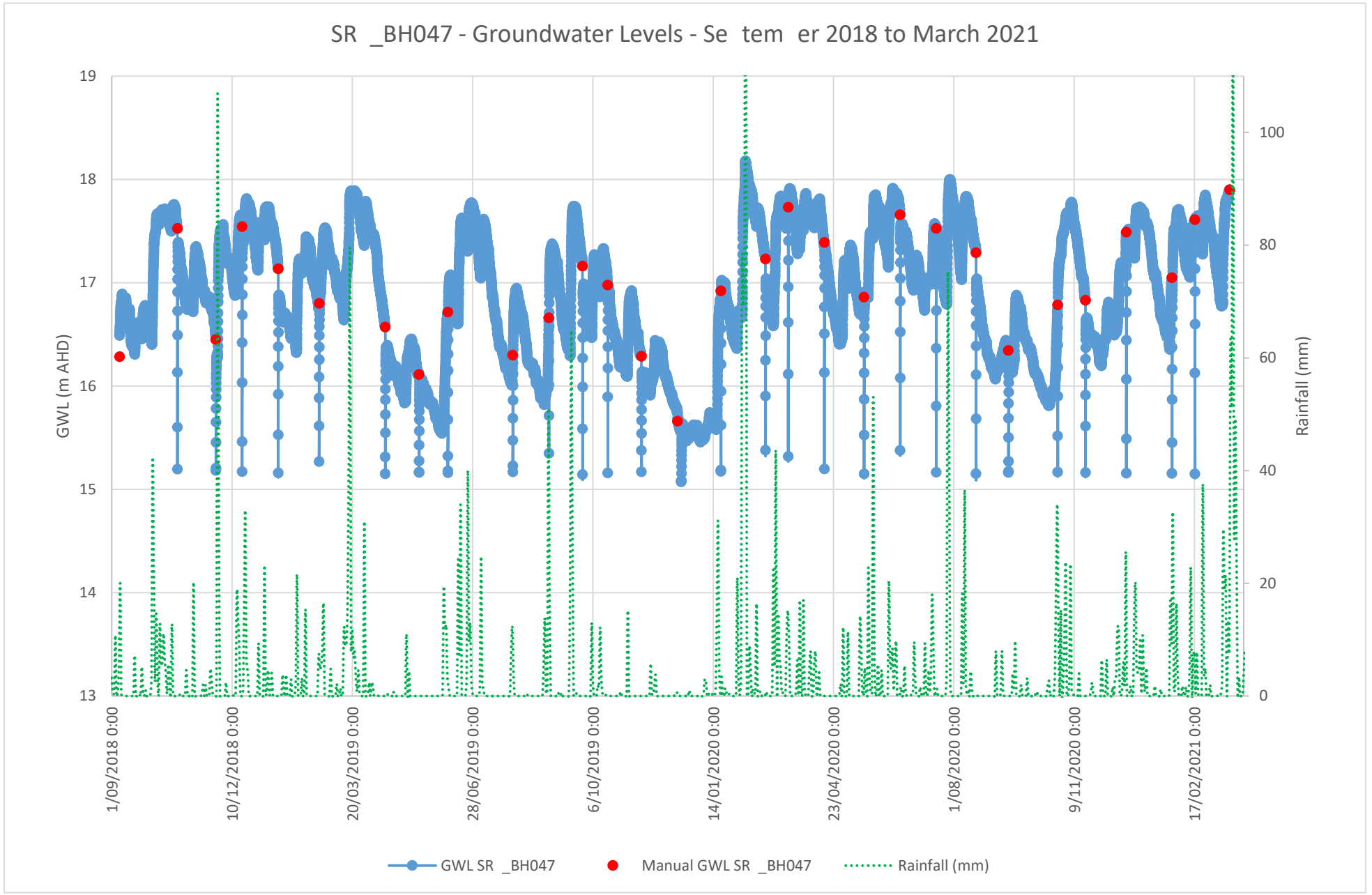
Appendix C
Graphs for groundwater levels and selected analytes / water quality parameters

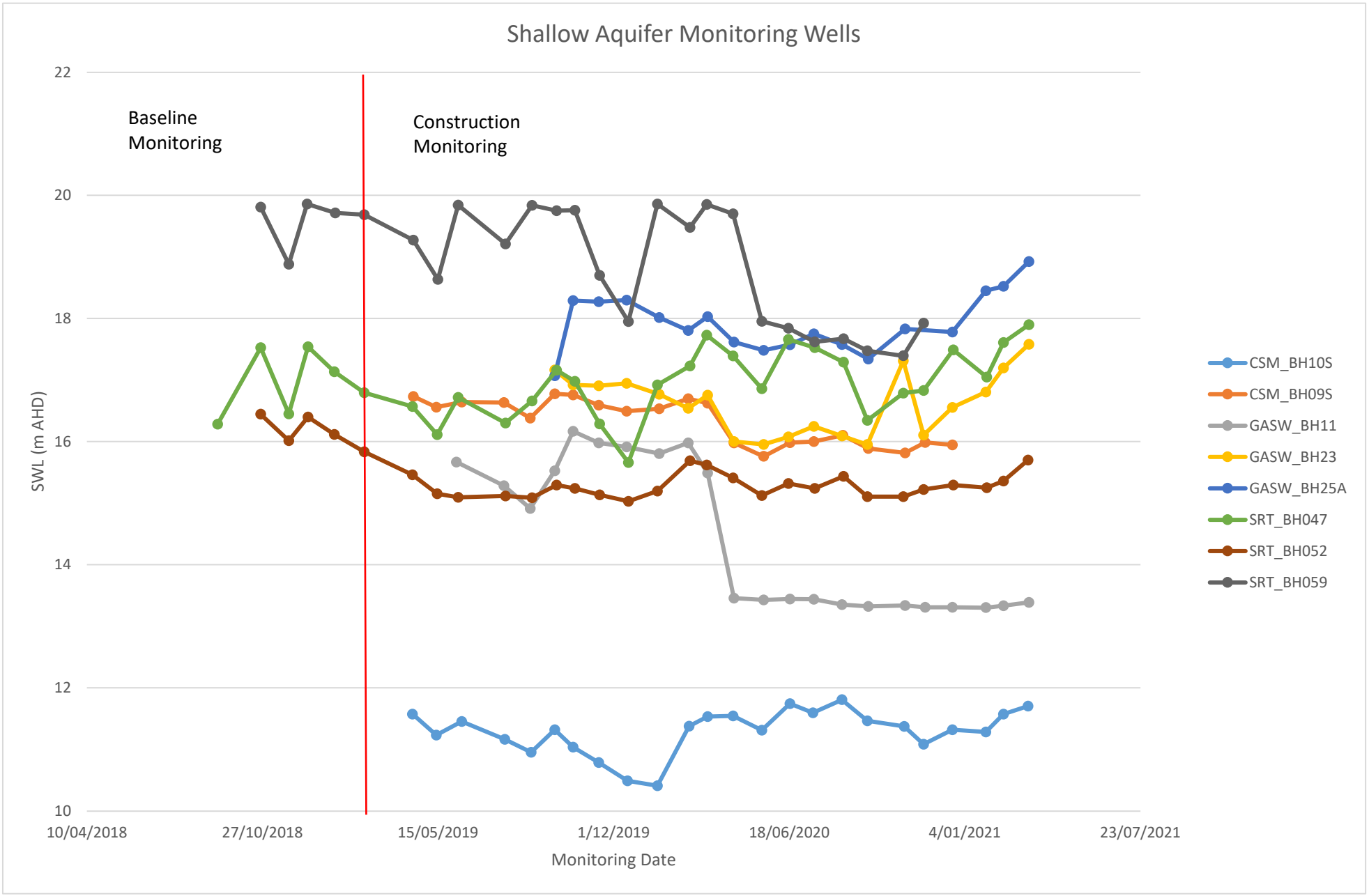

CSM_BH02 - Groundwater Levels - August 2019 to March 2021
GWL (m AHD)
Rainfall (mm)
2
1
0
-1
-2
-3
-4
-5
100
80
60
40
20
0
1/08/2019 0:00
9/11/2019 0:00
17/02/2020 0:00
27/05/2020 0:00
4/09/2020 0:00
13/12/2020 0:00
23/03/2021 0:00
GWL CSM_BH02
Manual GWL CSM_BH02
Rainfall (mm)

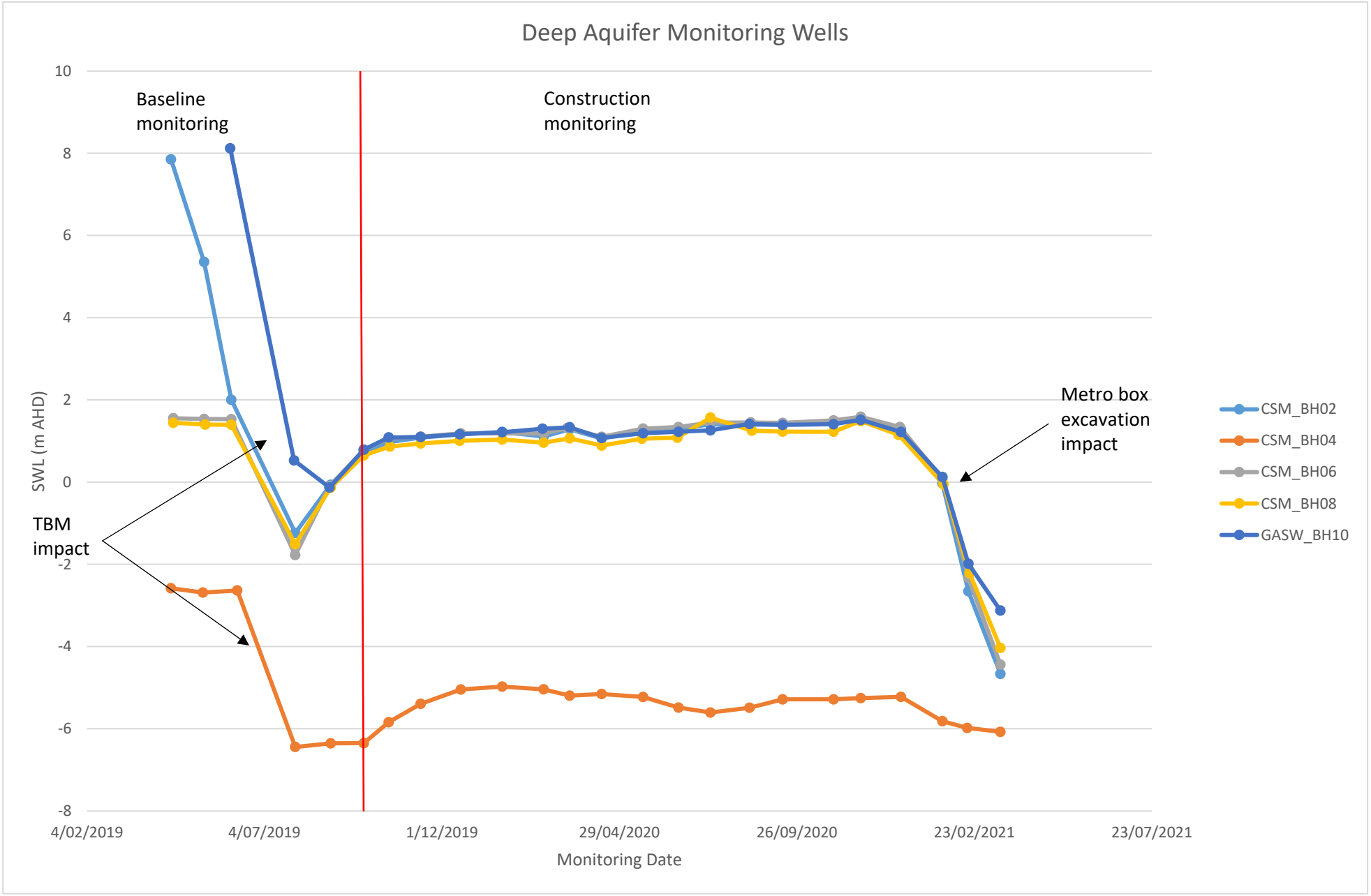

CSM_BH04 - Groundwater Levels - A ril 2019 to March 2021
GWL (m AHD)
Rainfall (mm)
0
-2
-4
-6
-8
-10
-12
100
80
60
40
20
0
1/04/2019 0:00
10/07/2019 0:00
18/10/2019 0:00
26/01/2020 0:00
5/05/2020 0:00
13/08/2020 0:00
21/11/2020 0:00
1/03/2021 0:00
GWL CSM_BH04
Manual GWL CSM_BH04
Rainfall (mm)


CSM_BH06 - Groundwater Levels - A ril 2019 to March 2021
GWL (m AHD)
Rainfall (mm)
3
2
1
0
-1
-2
-3
-4
-5
100
80
60
40
20
0
1/04/2019 0:00
10/07/2019 0:00
18/10/2019 0:00
26/01/2020 0:00
5/05/2020 0:00
13/08/2020 0:00
21/11/2020 0:00
1/03/2021 0:00
GWL CSM_BH06
Manual GWL CSM_BH06
Rainfall (mm)


CSM_BH10S - Groundwater Levels - anuar 2020 to March 2021
GWL (m AHD)
Rainfall (mm)
13
12
11
10
9
8
7
6
100
80
60
40
20
0
10/01/2020 0:00
29/02/2020 0:00
19/04/2020 0:00
8/06/2020 0:00
28/07/2020 0:00
16/09/2020 0:00
5/11/2020 0:00
25/12/2020 0:00
13/02/2021 0:00
GWL CSM_BH10S
Manual GWL CSM_BH10S
Rainfall (mm)


SR _BH047 - Groundwater Levels - Se tem er 2018 to March 2021
GWL (m AHD)
Rainfall (mm)
19
18
17
16
15
14
13
100
80
60
40
20
0
1/09/2018 0:00
10/12/2018 0:00
20/03/2019 0:00
28/06/2019 0:00
6/10/2019 0:00
14/01/2020 0:00
23/04/2020 0:00
1/08/2020 0:00
9/11/2020 0:00
17/02/2021 0:00
GWL SR _BH047
Manual GWL SR _BH047
Rainfall (mm)


Shallow Aquifer Monitoring Wells
Baseline Monitoring
Construction Monitoring
22
20
18
16
14
12
10
SWL (m AHD)
10/04/2018
27/10/2018
15/05/2019
1/12/2019
18/06/2020
4/01/2021
23/07/2021
Monitoring Date
CSM_BH10S
CSM_BH09S
GASW_BH11
GASW_BH23
GASW_BH25A
SRT_BH047
SRT_BH052
SRT_BH059


Deep Aquifer Monitoring Wells
Baseline monitoring
Construction monitoring
TBM impact
Metro box excavation impact
SWL (m AHD)
10
8
6
4
2
0
-2
-4
-6
-8
4/02/2019
4/07/2019
1/12/2019
29/04/2020
26/09/2020
23/02/2021
23/07/2021
Monitoring Date
CSM_BH02
CSM_BH04
CSM_BH06
CSM_BH08
GASW_BH10

Appendix D
Calibration certificates

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **17B100729**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 7.00		pH 7.00		330737	pH 6.88
2. pH 4.00		pH 4.00		351412	pH 4.08
3. pH 10.00		pH 10.00		355386	pH 9.60
3. mV		229.6mV		357172/357173	229.6mV
4. EC		2.76mS		350510	2.76mS
5. D.O		0.00ppm		19059	0.00ppm
6. Temp		21.6°C		MultiTherm	21.2°C

Calibrated by: **Kylie Rawlings**

Calibration date: **22/10/2020**

Next calibration due: **21/11/2020**

Oil / Water Interface Meter

Instrument **Geotech Interface Meter (60M)**
Serial No. **3911**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity above 7.9v	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: **Elyce Ireland**

Calibration date: **20-Oct-20**

Next calibration due: **19-Dec-20**

Oil / Water Interface Meter

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument Geotech Interface Meter (60M)
Serial No. 4427

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: Eloise Carroll

Calibration date: 13/11/2020

Next calibration due: 12/01/2021

Multi Parameter Water Meter

Instrument YSI Quatro Pro Plus
Serial No. 10H100325

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		355386	pH 9.56
2. pH 7.00		pH 7.00		355072	pH 6.86
3. pH 4.00		pH 4.00		351412	pH 3.89
4. mV		229.6mV		357172/357173	229.7mV
5. EC		2.76mS		350510	2.74mS
6. D.O		0.00ppm		10959	0.02ppm
7. Temp		22.0°C		MultiTherm	22.0°C

Calibrated by: **Chris Edwards**

Calibration date: **17/11/2020**

Next calibration due: **17/12/2020**

Oil / Water Interface Meter

Instrument **Geotech Interface Meter (60m)**
Serial No. **3954**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: **Darcy Keogh**

Calibration date: **14-Dec-20**

Next calibration due: **12-Feb-21**

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **18J104309**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		355386	pH 9.75
2. pH 7.00		pH 7.00		355072	pH 7.04
3. pH 4.00		pH 4.00		351412	pH 4.22
4. mV		229.6mV		357172/357173	229.2mV
5. EC		2.76mS		350510	2.74mS
6. D.O		0.00ppm		10959	0.00ppm
7. Temp		22.0°C		MultiTherm	21.6°C

Calibrated by: **Kylie Rawlings**

Calibration date: **17/12/2020**

Next calibration due: **16/01/2021**

KENNARDS HIRE

EQUIPMENT CERTIFICATION REPORT

PGN9003871 WATER QUALITY METER – MULTIFUNCTION (YSI)

Plant Number: 1074757

SENSOR	CONCENTRATION	SPAN 1	SPAN 2	TRACEABILITY	PASS
pH	pH 7	pH 7		# 355904	☑
pH	pH 4	pH 4		# 357330	☑
Conductivity	12.88 mS/cm	12.88 mS/cm		# 354761	☑
Dissolvent Oxygen	Sodium Sulphite / Air	0.0ppm in Sodium Sulphite	ppm Saturation in Air	# 10640	☑
ORP	240mV	240mV		# 5235	☑

Battery Status 100% (%)	Temperature 20.2 °C
Electrical Test & Tag (AS/NZS 3760)	Electrodes Cleaned and Checked

Note: Calibration solution traceability information is available upon request.

Please clean/decontaminate instrument and accessories before returning. A minimum 'Cleaning Fee' $55.00 (Inc GST) may apply if instrument is returned contaminated.

Checked By: Jacob Arnott Date: /01/21 Signed:

Accessories List:

User's Manual	pH and ORP Storage Solution	Transit Case

Multi Parameter Water Meter

Instrument **YSI Quatro Pro Plus**
Serial No. **14D101796**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
[redacted]	Capacity	✓	[redacted] Compartment ✓ Capacity ✓
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		355386	pH 9.56
2. pH 7.00		pH 7.00		355072	pH 6.98
3. pH 4.00		pH 4.00		351412	pH 4.20
4. mV		227.4mV		357172/357173	227.2mV
5. EC		2.76mS		350510	2.76mS
6. D.O		0.00ppm		10959	0.01ppm
7. Temp		23.0°C		MultiTherm	23.0°C

Calibrated by: **Lauren Tompkins**

Calibration date: **16/02/2021**

Next calibration due: **15/08/2021**

Oil / Water Interface Meter

Instrument **Interface Meter (60M)**
Serial No. **288107**

airmet
Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
	above 7.9V	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Tested by: **Kylie Rawlings**

Test date: **16/02/2021**

Next Test due: **15/08/2021**

Multi Parameter Water Meter

airmet

Air-Met Scientific Pty Ltd
1300 137 067

Instrument **YSI Quatro Pro Plus**
Serial No. **09K100883**

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. EC	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Sensor	Serial no	Standard Solutions	Certified	Solution Bottle Number	Instrument Reading
1. pH 10.00		pH 10.00		355386	pH 9.72
2. pH 7.00		pH 7.00		355072	pH 7.04
3. pH 4.00		pH 4.00		351412	pH 4.12
4. mV		231.8mV		358632/358634	231.4mV
5. EC		2.76mS		350510	2.75mS
6. D.O		0.00ppm		10959	0.00ppm
7. Temp		20.6°C		MultiTherm	20.9°C

Calibrated by: **Kylie Rawlings**

Calibration date: **15/03/2021**

Next calibration due: **14/04/2021**

Oil / Water Interface Meter

Instrument **Geotech Interface Meter (60M)**
Serial No. **3963**

Air-Met Scientific Pty Ltd
1300 137 067

Item	Test	Pass	Comments
Battery	Compartment	✓	
	Capacity	✓	
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
		✓	
Tape Check	Cleaned	✓	
Connectors	Checked for cuts	✓	
Instrument Test	At surface level	✓	

Certificate of Calibration

This is to certify that the above instrument has been cleaned and tested.

Calibrated by: **Chris Edwards**

Calibration date: **09-Mar-21**

Next calibration due: **09-May-21**

Appendix E
Groundwater purging sheets

Purging and Sampling Record

Bore ID: CSM-BH02

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peristaltic Pump	SWL: 19.955 m
Project: Central Station Main Works	Sample Method: 4	Screen: From: ..... to ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: .....
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N Pump Depth: 25 m	Ref.datum: .....
Date: 27/10/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 33.075 m
Round October 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	Logic Check: ✓ Stick Up: ..... m Bore Diam.: 50 mm Well Cap Secure? Yes

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L.....)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11.37	1	20.23	2.72	552.5	6.11	151.8	19.7		light brown, slightly turbid, no sheen
11.40	2	20.24	2.14	680.8	6.27	134.0	19.8		"
11.43	3	20.26	2.06	678	6.34	127.0	19.9		"
11.46	4	20.28	2.04	673	6.38	120.6	19.9		"
11.49	5	20.28	2.04	672	6.39	118.6	19.9		stable, sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH04

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 27/10/2020
Round October 2020

Sampling Information

Purge Method: QED MP10
Sample Method: "
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 25 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 21.10 m Logic Check: /
Screen: From: / to: m Stick Up: m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 33.55 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9.35	1	21.215	3.45	419.7	5.70	41.4	20.5		brown, turbid, no odour, no sheen
9.38	2	21.215	1.18	427.3	5.67	33.1	20.6		" stable SWL
9.41	3	21.215	0.81	436.5	5.70	32.6	20.7		"
9.44	4	21.215	0.74	434.4	5.67	35.5	20.6		"
9.47	5	21.215	0.64	435.0	5.65	37.6	20.6		stable, Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM-BH06

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: QED MP10	SWL: 20.47 m — Logic Check: ✓
Project: Central Station Main Works	Sample Method: "	Screen: From: ..... to: ..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ✓ — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth: 25 m	Ref.datum: ..... — Well Cap Secure? .....
Date: 27/10/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 35.35 m
Round October 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L.....)	Elec.Cond (~~uS/cm~~ mS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
2.17	1	20.46	1.34	765	6.26	-31.0	22.8		Clear, no odour/sheen
2.20	2	20.66	0.76	765	6.15	-30.6	22.5		" SWL stable
2.23	3	20.66	0.65	759	6.10	-30.8	22.4		"
2.26	4	20.66	0.60	767	6.08	-29.9	22.2		"
2.29	5	20.66	0.55	760	6.06	-29.6	22.4		Stable, sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

13.47 - incorrectly read off the tape

Bore ID: CSM_BH08

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 27/10/2020
- Round October 2020

Sampling Information
- Purge Method: Mirage rig no 050
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 22 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 14.47 m
- Screen: From: / to: m
- NAPL Check: /
- Ref.datum:
- Bore Depth: 35.01 m
- Logic Check: /
- Stick Up: m
- Bore Diam.: 50 mm
- Well Cap Secure? Yes

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
8.17	1	13.47	4.83	309.5	9.23	36.7	20.5		clear, no odour, no sheen
8.20	2	13.47	1.95	408.6	7.52	-61.4	20.7		SWL stable
8.23	3	13.47	0.69	456.7	6.65	-49.6	20.7		"
8.26	4	13.47	0.53	466.1	6.37	-47.9	20.8		"
8.29	5	13.47	0.39	466.2	6.32	-47.4	20.8		"
8.32	6	13.47	0.40	469.0	6.31	-48.8	20.8		stable, sampled

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

* QC01, QC02

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: csm_DH095

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	**Purge Method:** Pei	**SWL:** 4.99 m **Logic Check:** .....
Project: Central Station Main Works	**Sample Method:** Pei	**Screen:** From:.....to..... m **Stick Up:** ..... m
Proj. No.: 21-27234	**WQ Meter Type:** YSI	**NAPL Check:**..... **Bore Diam.:** 50 mm
Sampler: T. Nham / J. Vickers	**Flow Cell:** Y / N **Pump Depth:** 6 m	**Ref.datum:** ..... **Well Cap Secure?**.....
Date: 28/10/2020	**WLevel Meter Type:** Dip / Fox / Int.Fce / Gge	**Bore Depth:** 6.55 m
Round October 2020	**Field Filtered?** Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (mS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
8.32	1	5.22	1.10	547	5.74	89.3	19.0		cloudy, dk Orange/brown, no odour/sheen
8.35	2	5.325	0.70	545	5.66	62.5	19.0		"
8.38	3	5.34	0.60	544	5.66	53.6	19.0		"
8.41	4	5.36	0.50	561	5.67	44.5	19.1		"
8.44	5	5.39	0.52	560	5.68	37.4	19.1		"
8.47	6	5.41	0.48	559	5.69	35.1	19.2		Stable, Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH105

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 27/10/20
Round October 2020

Sampling Information

Purge Method: Low flow
Sample Method: QED
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 4.21 m Logic Check: ✓
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure?....Y.....
Bore Depth: 9.805 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (Cuscm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10.44	2	4.47	1.02	275.5	4.60	230.8	19.1		light brown, turbid
10.52	3	4.50	0.60	277.9	4.43	237.9	14.2		"
10.55	4	4.53	0.67	277.9	4.45	237.3	19.3		"
10.58	5	4.56	0.59	274.2	4.42	238.1	19.4		Stable, sampled

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SMDH115

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: —	SWL: DRY m Logic Check: ✓
Project: Central Station Main Works	Sample Method: —	Screen: From: ✓ to..... m Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ✓ Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N Pump Depth: — m	Ref.datum: ..... Well Cap Secure? Yes
Date: 26/10/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 5.695 m
Round October 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	DRY ✓								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH7

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: —	SWL: DRY m — Logic Check: /
Project: Central Station Main Works	Sample Method: —	Screen: From:..... to..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: / — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth:.....m	Ref.datum: ..... — Well Cap Secure? Yes
Date: 26/10/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 6.22 m
Round October 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
		DRY							

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH10

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 27/10/2020
Round October 2020

Sampling Information

Purge Method: QED MP10
Sample Method: "
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 24 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 19.085 m Logic Check: /
Screen: From: ..... to ..... m Stick Up: ..... m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Yes
Bore Depth: 24.86 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (%/mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
1:12	1	19.50	0.98	1238	6.21	-91.9	19.7		Grey, cloudy, strong organic odour / no sheen
1:17	2	19.73	0.61	1294	6.23	-98.8	19.7		"
1:22	3	20.00	0.48	1294	6.25	-103.3	19.7		"
1:27	4	20.27	0.38	1283	6.26	-106.8	19.6		"
1:32	5	20.55	0.37	1284	6.27	-109.7	19.6		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH11

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 28/10/2020
Round October 2020

Sampling Information

Purge Method: Per
Sample Method: Bai
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 8 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge

Bore Information

SWL: 7.212 m Logic Check: /
Screen: From: / to: m Stick Up: m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 8.05 m

Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (C uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9:26	0.5	7.80	5.05	292.2	5.67	78.0	19.0		brown, slightly turbid
									final sample taken

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASU_BH23

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 26/10/2020
Round October 2020

Sampling Information

Purge Method: Per
Sample Method: Per
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 3 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 2.294 m
Screen: From: ..... to ..... m
NAPL Check: .....
Ref.datum: .....
Bore Depth: 3.91 m
Logic Check: ✓
Stick Up: ✓ m
Bore Diam.: 50 mm
Well Cap Secure? Y

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
11:26	1	2.295	0.58	551	6.90	-66.0	18.6		Grey cloudy, Mod odour
11:29	2	2.295	0.55	506	6.94	-76.6	18.7		"
11:34	3	2.295	0.50	490.2	6.90	-76.0	18.7		"
11:39	4	2.295	0.45	442.4	6.85	-75.5	18.6		"
11:44	5	2.295	0.50	414.3	6.81	-69.5	18.6		"
11:48	6	2.295	0.51	405.7	6.78	-66.0	18.6		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GSW_DN25A

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 28/10/2020
Round October 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 2.5 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 1.800 m Logic Check: .....
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Yes
Bore Depth: 2.94 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L...)	Elec.Cond (µS/cm...)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:36	1	1.93	0.45	478.8	6.32	-52.4	18.5		Grey cloudy. HC odour.
9:40	2	1.96	0.30	494.1	6.50	-50.1	19.0		"
9:44	3	2.015	0.24	602	6.55	-71.4	19.0		"
9:48	4	2.025	0.36	625	6.58	-82.3	19.0		"
9:52	5	2.02	0.39	654	6.59	-85.5	19.0		"
9:56	6	2.02	0.38	657	6.60	-88.4	19.0		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRTBH0C07

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 28/10/2020
Round October 2020

Sampling Information

Purge Method: Por
Sample Method: Pos
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 6.5 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 4.525 m Logic Check: /
Screen: From: / to: / m Stick Up: / m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: / Well Cap Secure? Yes
Bore Depth: 6.96 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9.34	1	4.785	2.44	319.8	6.76	85.2	19.1		clear, no odour / sheen
9.37	2	5.17	1.53	323.1	6.81	80.9	19.1		"
9.40	3	5.525	1.42	320.0	6.84	77.4	19.1		"
9.44	4	5.835	1.42	319.0	6.85	76.0	19.1		"
9.47	5	5.765	1.42	315.5	6.89	74.2	19.0		Stable, Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

GHD MANAGEMENT ENGINEERING ENVIRONMENT

Purging and Sampling Record

Bore ID: SKT_BH050

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 26/10/20
Round October 2020

Sampling Information

Purge Method: -
Sample Method: -
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: Dry m
Screen: From:.....to..... m
NAPL Check:.....
Ref.datum: .....
Bore Depth: 2-77 m
Logic Check: .....
Stick Up: ..... m
Bore Diam.: 50 mm
Well Cap Secure? Y

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
									Dry

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH052

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 26/10/2020
Round October 2020

Sampling Information

Purge Method: Pen
Sample Method: "
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 7.5 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 6.294 m Logic Check: /
Screen: From: / to: m Stick Up: / m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 7.92 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (%/ppm)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:02	1	6.62	4.20	326.5	6.52	93.4	19.4		Clear, no odor/sheen
9:06	2	6.87	3.32	309.1	6.24	100.4	19.5		"
9:10	3	7.14	3.07	310.5	6.16	102.0	19.5		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

GHD MANAGEMENT ENGINEERING ENVIRONMENT

Purging and Sampling Record

Bore ID: SRT_BH055

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 26/10/2020
Round October 2020

Sampling Information

Purge Method: ~~Bail~~ Pump
Sample Method: Bail
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 6 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 5.446 m
Screen: From: ..... to ..... m
NAPL Check: /
Ref.datum: /
Bore Depth: 6.001 m
Logic Check: /
Stick Up: ..... m
Bore Diam.: 50 mm
Well Cap Secure? Yes

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
			very little water pred	sample taken					
	—		6.13	305.9	6.58	82.5	18.7		Brown cloudy, no odour/sheen

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH02

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 19/11/20
Round November 2020

Sampling Information

Purge Method: Micro purge
Sample Method: micro purge
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 23 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 19.87 m Logic Check: /
Screen: From: ..... to ..... m Stick Up: ..... m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Y
Bore Depth: 33.38 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
10:10	1.5	20.42	2.43	776	6.29	141.1	20.9		
10:13	2	20.50	2.60	734	6.31	137.6	20.9		
10:16	2.5	20.41	2.19	744	6.35	133.2	21.8		
10:19	3.0	20.38	2.19	758	6.37	131.4	22.0		
10:22	3.5	20.35	2.17	763	6.38	130.1	21.8		

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH04

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Micropurge	SWL: 21.07 m — Logic Check: /
Project: Central Station Main Works	Sample Method: Micropurge	Screen: From: ~~to~~ m — Stick Up: / m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: — Bore Diam.: 50 mm
Sampler: JV	Flow Cell: Y / N — Pump Depth: m	Ref.datum: TOC — Well Cap Secure? Y
Date: 19/11/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 33.86 m
Round November 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
8:58	0.5	21.23	0.85	484.1	5.60	29.9	21.7		turbid brown
9:01	0.75	21.26	0.60	484.5	5.60	28.9	21.5		
9:05	1.25	21.24	0.44	485.4	5.62	26.4	21.5		QC02
9:08	2	21.25	0.41	488.5	5.64	24.5	21.4		
9:11	2.5	21.25	0.37	490.9	5.65	22.5	21.4		
9:14	3	21.25	0.37	491.1	5.65	21.8	21.4		

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

QC02

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH06

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Micropurge	SWL: 20.34 m — Logic Check: /
Project: Central Station Main Works	Sample Method: Micropurge	Screen: From: / to: m — Stick Up: / m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: / — Bore Diam.: 50 mm
Sampler: JV	Flow Cell: Y / N — Pump Depth: m	Ref.datum: TOC — Well Cap Secure? Y
Date: 19/11/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 35.39 m
Round November 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
1.44	1	20.45	0.34	896	5.85	13.2	22.9		cloudy, slightly grey, no odour/sheen
1.47	2	20.45	0.33	894	5.83	9.9	22.8		"
1.50	3	20.45	0.27	893	5.84	8.2	22.8		SWL stable
1.53	4	20.45	0.24	891	5.85	7.0	22.7		"
1.56	5	20.45	0.22	885	5.82	5.0	22.8		
									Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH08

Job Information
Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 19/11/20
Round November 2020

Sampling Information
Purge Method: Micropurge
Sample Method: Micropurge
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
SWL: 13.21 m Logic Check: /
Screen: From:.....to..... m Stick Up: /..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: / Well Cap Secure? Y
Bore Depth: 35.47 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
12:53	0.75	13.23	1.02	539	6.08	9.8	22.2		good recharge, clear, some brown particles, no sheen no odour
12:56	1.5	13.23	0.70	536	5.98	2.6	21.8		
12:59	2	13.22	0.64	536	5.97	-2.1	21.8		
13:02	3	13.26	0.45	536	5.81	4.1	21.7		
13:05	4	13.23	0.36	536	5.85	3.7	21.7		
13:08	4.75	13.23	0.34	535	5.83	1.5	21.7		

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH095

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 20/11/20
Round November 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 4.82 m Logic Check: /
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Y
Bore Depth: 6.57 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (±mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
11.35	1	4.92	1.32	652	5.82	79.8	21.1		brown, turbid, high sediment load
11.38	2	4.985	0.73	625	5.59	97.9	20.6		no sheen, no odour
11.41	3	5.06	0.47	622	5.40	98.5	20.3		"
11.44	4	5.10	0.38	622	5.44	95.1	20.3		"
11.47	5	5.20	0.21	622	5.51	82.7	20.3		"
11.50	6	5.23	0.23	618	5.46	84.2	20.3		"
11.53	7	5.31	0.22	609	5.49	82.3	20.3		Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH105

Job Information
Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: J.V, F.S
Date: 18/11/2020
Round November 2020

Sampling Information
Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
SWL: 4.50 m Logic Check: ✓
Screen: From:.....to..... m Stick Up: ✓ m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum:..... Well Cap Secure?: Y
Bore Depth: 9.80 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9.32	0.75	4.27	0.67	260.8	4.84	210.2	21.1		high sediment load, tubing blocked,
9.35	1.25	4.365	0.47	258.4	4.83	212.5	21.1		replaced tubing. Water then low sediment
9.39	2	4.41	0.43	257.6	4.76	215.3	21.0		load, brown.
9.~~42~~	2.75	4.465	0.40	257.4	4.81	212.9	21.1		no sheen, no odour
9.45	3.25	4.48	0.39	257.0	4.81	213.3	21.1		~~good~~ moderate recharge
									QC01

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc
* QC01 *

Purge Volumes
Casing Int. Dia (mm) 50 100 150
Vol (L/m of casing) 2.0 7.9 17.7
*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH115

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: SV
Date: 18/11/20
Round November 2020

Sampling Information

Purge Method:
Sample Method: /
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: Dry m Logic Check: /
Screen: From:/ to..... m Stick Up: / m
NAPL Check:/ Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Y
Bore Depth: 5.7 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
									Dry

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH7

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method:	SWL: 6.18 Dry m — Logic Check: ✓
Project: Central Station Main Works	Sample Method: ✓	Screen: From:..... to..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check:..... — Bore Diam.: 50 mm
Sampler: JV	Flow Cell: Y / N — Pump Depth:.....m	Ref.datum: ..... — Well Cap Secure? ✓
Date: 18/11/20	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 6.18 m
Round November 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
									Dry

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH10

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 19/11/20
Round November 2020

Sampling Information

Purge Method: Micro purge
Sample Method: Micro purge
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 18.98 m
Screen: From:.....to..... m
NAPL Check:.....
Ref.datum: .....
Bore Depth: 25.12 m
Logic Check: .....
Stick Up: /7 m
Bore Diam.: 50 mm
Well Cap Secure?: Y

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (mS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
10.51	1	19.68	0.91	1377	6.19	-87.2	21.2		clear, Sulphuric odour, no sheen
10.54	2	20.08	0.42	1360	6.25	-100.0	20.7		"
10.57	3	20.36	0.38	1358	6.28	-104.1	20.6		"
11.00	4	20.73	0.40	1358	6.28	-106.5	20.6		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH17

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: SV
Date: 20/11/20
Round November 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 7.24 m Logic Check: ...../....
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure?...Y.....
Bore Depth: 8.04 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (C.....25m	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
10.17	~~10~~ 15	7.90	3.96	335.3	5.91	69.6	20.8		Low sul, grab sample brown, cloudy, slight organic odour, no sheen

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW-BH23

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method:	SWL: 3.50 m — Logic Check: .....
Project: Central Station Main Works	Sample Method:	Screen: From:.....to..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check:..... — Bore Diam.: 50 mm
Sampler: FS	Flow Cell: Y / N — Pump Depth: 3.8 m	Ref.datum: TOC — Well Cap Secure? ✓
Date: 18/11/2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 3.91 m
Round November 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
									Grab sample
									Strong HC odour
									turbid Black

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SKT_BH047

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 18/1/20
Round November 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge

Bore Information

SWL: 4.48 m Logic Check: ~~/~~
Screen: From:~~.....~~ to ~~.....~~ m Stick Up: ~~/~~ m
NAPL Check: ~~/~~ Bore Diam.: 50 mm
Ref.datum: ~~/~~ Well Cap Secure?....Y.....
Bore Depth: 6.98 m

Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (%Sat)	Elec.Cond (mS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
11:22	1	5.25	2.33	333.4	6.17	185.1	19.9		clear, no sheen, no odour
11:27	3	5.39	1.96	334.0	6.19	176.6	20.1		flow rate reduced after 1st reading
11:30	3.5	5.54	2.18	336.0	6.28	172.1	20.1		
11:33	4	5.65	2.26	335.8	6.30	169.6	20.1		
11:36	4.5	5.79	1.89	335.2	6.31	165.8	20.1		

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH050

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 18/11/20
Round November 2020

Sampling Information

Purge Method: Peri.
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 2.59 m
Screen: From:..... to..... m
NAPL Check:.....
Ref.datum: .....
Bore Depth: 2.77 m
Logic Check: .....
Stick Up: ..... m
Bore Diam.: 50 mm
Well Cap Secure? Y .....

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
									grab sample

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc
2 x 40mL, ½ x 200mL, 3 x 60mL

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SKT-BH052

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peri.	SWL: 6.18 m — Logic Check: /
Project: Central Station Main Works	Sample Method: Peri.	Screen: From: — to: — m — Stick Up: — m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: — Bore Diam.: 50 mm
Sampler: T.	Flow Cell: (Y) / N — Pump Depth: 7.7 m	Ref.datum: — Well Cap Secure? ✓
Date: 18/11/20	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 7.92 m
Round November 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen mg/L (.....)	Elec.Cond (uS/cm) (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10:43	~~0~~ 0.5	6.47	4.51	385.5	5.89	194.2	20.1		Clear, no sheen, no odour,
10:46	1	6.755	4.19	354.0	5.86	188.4	20.1		no sediment
10:49	1.75	6.925	3.46	318.0	5.75	186.1	20.1		
									SWL falling, grab sample

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SKT_BH059

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: JV
Date: 18/11/2020
Round November 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 4.915 m Logic Check: ...../.....
Screen: From:...../.....to..... m Stick Up: ...../..... m
NAPL Check:...../..... Bore Diam.: 50 mm
Ref.datum: ...../..... Well Cap Secure?...Y.....
Bore Depth: 6.00 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
1.31	1	5.135	4.81	339.1	6.52	173.9	20.2		clear, no odour, no sheen
1.34	2	5.22	4.60	337.7	6.44	174.8	20.1		"
1.37	3	5.35	4.68	336.6	6.65	169.6	20.0		"
1.40	4	5.46	4.54	334.9	6.43	167.6	20.0		"
1.43	5	5.61	4.57	332.1	6.51	165.8	20.0		"
									SWL low, sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH02

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: QED - Micro purge	SWL: 20.14 m — Logic Check: —
Project: Central Station Main Works	Sample Method: "	Screen: From: — to — m — Stick Up: — m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: — — Bore Diam.: 50 mm
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N — Pump Depth: ..... m	Ref.datum: — — Well Cap Secure? Y
Date: 23.12.2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 33.57 m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9.15	1	20.35	4.94	369.8	6.22	114.7	20.9		grey - brown, slight sediment load,
9.18	2	20.68	4.22	370.6	6.25	126.9	20.8		no odour / sheen
9.21	3	20.81	4.26	369.4	6.26	134.6	20.8		
9.24	4	20.43	4.22	368.6	6.26	137.4	20.8		Stable, sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH04

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 23.12.20
Round December 2020

Sampling Information

Purge Method: QED Micropurge
Sample Method: QED Micropurge
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 21.04 m
Screen: From:.....to..... m
NAPL Check:.....
Ref.datum: .....
Bore Depth: 34.95 m
Logic Check: —
Stick Up: — m
Bore Diam.: 50 mm
Well Cap Secure?....Y.....

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L.....)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
8.17	1	21.17	2.53	488.9	7.22	25.2	21.8		clear to light brown, slightly turbid
8.20	2	21.26	1.10	496.0	5.53	106.2	21.3		" no odour / sheen
8.27	3	21.29	0.65	497.7	5.23	120.1	21.2		"
8.30	4	21.32	0.51	496.0	5.29	110.3	21.2		SWL stable
8.33	5	2133	0.46	4949	5.33	104.1	21.2		"
8.36	6	21.33	0.40	4961	5.36	99.6	21.2		"
8.39	7	21.34	0.39	493.6	5.38	97.3	21.2		stable, sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH06

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 22/12/20
Round December 2020

Sampling Information

Purge Method: Micro purge
Sample Method: Low flow
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 35 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 20.59 m Logic Check: .....
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: TOC Well Cap Secure?.....
Bore Depth: 36.10 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
13:25	2	20.69	0.76	871	6.27	14.8	22.7		turbid brown, no sheen, no odour
13:28	3	20.69	0.81	869	6.09	33.4	22.6		good recharge
13:31	4	20.65	0.75	868	6.02	37.9	22.6		
13:34	5	20.65	0.56	851	5.97	37.2	22.6		
13:37	6	20.65	0.45	839	5.94	38.5	22.6		
13:40	7	20.65	0.41	837	5.94	36.3	22.6		

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM-BH08

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 21.12.2020
Round December 2020

Sampling Information

Purge Method: QED
Sample Method: QED
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 13.545 m Logic Check: –
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Y
Bore Depth: 34.99 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
7.37	0.5	13.56	1.85	486.9	7.95	38.1	21.4		brown tint, brown-orange particles
7.40	1	13.58	0.68	482.3	6.67	49.4	21.3		moderate recharge
7.40	1.5	13.56	0.54	482.0	6.04	69.0	21.3		
7.47	2.25	13.55	0.43	481.0	5.66	83.3	21.3		
7.50	3.5	13.55	0.39	478.5	5.51	93.1	21.2		BD01
7.53	4.5	13.55	0.39	477.5	5.47	96.6	21.2		SD01
7.57	5.5	13.56	0.41	476.2	5.46	100.2	21.2		

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

BD01, SD01

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH095

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Per.	SWL: 4.86 m — Logic Check: —
Project: Central Station Main Works	Sample Method: Per.	Screen: From: — to: — m — Stick Up: — m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: — — Bore Diam.: 50 mm
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N — Pump Depth: — m	Ref.datum: — — Well Cap Secure? Y
Date: 21-12-20	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 6.58 m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:53	1	4.96	~~0.85~~	574	~~5.73~~	169.8	20.1		~~Start~~ orange / light brown, no
9:56	2	5.05	0.52	570	5.66	173.4	19.9		odour, low sediment load.
9:59	3	5.13	0.40	575	5.61	145.6	19.8		"
10:02	4	5.22	0.27	577	5.63	121.0	19.8		"
10:05	5	5.28	0.28	579	5.68	105.1	19.8		"
10:08	6	5.31	0.24	573	5.67	99.3	19.8		Stable, Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH105

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peri	SWL: 4.265 m
Project: Central Station Main Works	Sample Method: Peri	Screen: From: — to: — m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: —
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N Pump Depth:.....m	Ref.datum: —
Date: 21.12.20	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 9.79 m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	Logic Check: — Stick Up: — m Bore Diam.: 50 mm Well Cap Secure?: Y

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:01	1	4.48	0.60	254.4	5.40	199.1	21.3		
9:04	2	4.56	0.55	253.4	5.38	200.8	21.3		
9:05	3	4.63	0.47	252.5	5.35	206.9	21.3		
9:09	4	4.66	0.45	251.7	5.33	209.1	21.3		

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM-BH15

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 22/12/20
Round December 2020

Sampling Information

Purge Method:
Sample Method:
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: ..... m Logic Check: .....
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure?.....
Bore Depth: 5.695 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
									Dry

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH7

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method:	SWL: ~~6.18~~ Dry m — Logic Check:
Project: Central Station Main Works	Sample Method:	Screen: From:.....to..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check:..... — Bore Diam.: 50 mm
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N — Pump Depth:.....m	Ref.datum: ..... — Well Cap Secure?.....
Date: 21.12.2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 6.18 m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when 3 consecutive readings:		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
									Dry

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW-BH10

Job Information
Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 23.12.2020
Round December 2020

Sampling Information
Purge Method: QED - Micropurge
Sample Method: QED - Micropurge
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
SWL: 19.275 m Logic Check: —
Screen: From:—to..... m Stick Up: ..X.. m
NAPL Check:— Bore Diam.: 50 mm
Ref.datum: — Well Cap Secure?...X...
Bore Depth: 24.84 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
10:42	3	20.78	0.24	1290	6.50	-86.6	20.7		Turb'd grey no sheen
10:45	4	21.23	0.15	1292	6.48	-91.8	20.5		strong HC odour
10:48	5	21.55	0.15	1296	6.48	-94.2	20.5		
10:51	6	21.84	0.16	1260	6.48	-96.1	20.5		poor recharge

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes
Casing Int. Dia (mm) 50 100 150
Vol (L/m of casing) 2.0 7.9 17.7
*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH11

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peri	SWL: 7.24 m — Logic Check: X
Project: Central Station Main Works	Sample Method: Peri	Screen: From: — to: — m — Stick Up: — m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: — — Bore Diam.: 50 mm
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N — Pump Depth: .....m	Ref.datum: — — Well Cap Secure?: Y
Date: 21.12.20	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 8.05 m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L or %)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
11:02	0.5	7.72	4.36	326.9	6.86	48.1	21.7		SWL low, grab sample taken

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW-BH123

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peri	SWL: 3.09 m Logic Check: —
Project: Central Station Main Works	Sample Method: Peri	Screen: From: — to: — m Stick Up: ✓ m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: — Bore Diam.: 50 mm
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N Pump Depth:.....m	Ref.datum: ..... Well Cap Secure? ✓
Date: 21.12.20	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 3.89 m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (mS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
1145	—	3.41	1.24	933	6.76	-98.1	21.8		low swl, grab sample

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW-BH254

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: Jake Vickers / Felix Salmon
- Date: 21.12.20
- Round December 2020

Sampling Information
- Purge Method: Per.
- Sample Method: Per.
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth:.....m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 1.85 m Logic Check: —
- Screen: From:.....to..... m Stick Up: ..... m
- NAPL Check:..... Bore Diam.: 50 mm
- Ref.datum: ~ Well Cap Secure? Y
- Bore Depth: 2.94 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
10.29	0.5	1.95	0.68	669	6.68	-128.3	21.7		grey, strong HC odour, no sheen, minor black sediments.
10.32	1	2.00	0.43	667	6.81	-138.9	21.7		
10.35	1.5	2.03	0.34	679	6.87	-141.7	21.8		1.
10.38	2.0	2.05	0.38	701	6.84	-141.6	21.9		11
10.41	2.5	2.07	0.39	721	6.91	-143.5	21.4		stable, sampled

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SKT_BH047

Job Information
Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 22.12.20
Round December 2020

Sampling Information
Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
SWL: 3.82 m Logic Check: —
Screen: From:—to— m Stick Up: — m
NAPL Check:— Bore Diam.: 50 mm
Ref.datum: — Well Cap Secure? Y
Bore Depth: 6.96 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
10:20	1	4.24	2.55	321.5	6.72	151.1	19.4		clear, no sheen, no odour
10:23	2	4.535	2.03	300.4	6.59	154.7	19.9		poor recharge
10:26	3	5.05	1.96	274.2	6.44	160.1	19.9		
10:29	4	5.285	1.95	265.1	6.30	164.3	19.8		
10:32	5	5.60	1.94	264.1	6.25	166.0	19.8		low SWL, sampled
10:35	6	5.86	2.04	265.5	6.22	166.6	19.9		
10:38	7	6.085	2.09	267.4	6.22	166.5	19.9		
10:41	8	6.45	2.19	270.3	6.26	164.6	19.9		

Field QA Checks:
Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes
Casing Int. Dia (mm) 50 100 150
Vol (L/m of casing) 2.0 7.9 17.7
*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH050

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 22/12/20
Round December 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge

Bore Information

SWL: 2.61 m Logic Check: .....
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure?...Y.....
Bore Depth: 2.77 m

Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
									Loose SWL, grab sample
									Partial sample collected due
									to insufficient water

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc
* Metals, preserved inorganics, VOC x2, Semi-VOC x 1/2 bottle

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SKT-BH052

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: Jake Vickers / Felix Salmon
Date: 22.12.20
Round December 2020

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 6.105 m Logic Check: —
Screen: From:.....to..... m Stick Up: — m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure?..X.....
Bore Depth: 7.865 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings)		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9.39	1	6.535	5.10	295.1	6.67	156.9	20.1		clear, no odour / sheen
9.42	2	6.74	4.42	329.4	6.30	165.9	20.3		"
9.45	3	6.84	3.82	333.1	6.30	164.1	20.4		"
9.48	4	6.95	3.99	334.4	6.32	163.1	20.2		"
9.51	5	7.03	3.95	330.6	6.32	162.8	20.2		stable, sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT-BH059

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method:	SWL: ..... m Logic Check: .....
Project: Central Station Main Works	Sample Method:	Screen: From:.....to..... m Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check:..... Bore Diam.: 50 mm
Sampler: Jake Vickers / Felix Salmon	Flow Cell: Y / N Pump Depth:.....m	Ref.datum: ..... Well Cap Secure?.....
Date: 22.12.2020	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: ..... m
Round December 2020	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
									could not locate, potentially destroyed due to construction activities.

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_DH02

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: QED mp10	SWL: 21.455 m — Logic Check:
Project: Central Station Main Works	Sample Method: "	Screen: From: ..... to: ..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ..... — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth: 24 m	Ref.datum: ..... — Well Cap Secure? Yes
Date:	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 33.22 m
Round January 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (C uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9.14	0.5	21.81	4.17	417.2	6.37	108.9	21.1		brown, turbid, no sheen/odour
9.17	1.5	22.16	3.85	411.3	6.33	122.3	20.8		"
9.20	2.5	22.285	3.81	426.7	6.34	126.9	20.7		"
9.23	3.5	22.43	3.52	466.3	6.38	130.4	20.7		"
9.26	4.5	22.68	3.25	506	6.44	132.9	20.6		"
9.29	5.5	22.75	3.23	517	6.46	136.9	21.1		Stable sampled.

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles Dupe : QC02 Metal/Fe filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM-DH04

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 27/1/2021
- Round January 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: 4
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 25 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 21.630 m Logic Check: /
- Screen: From: ..... to ..... m Stick Up: ..... m
- NAPL Check: / Bore Diam.: 50 mm
- Ref.datum: / Well Cap Secure? Yes
- Bore Depth: 33.37 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L or %)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
8:13	1	21.90	2.32	436.6	5.87	64.0	21.7		Orange dusty, no odour/sheen
8:17	2	21.94	1.97	433.1	5.86	78.1	21.5		"
8:20	3	22.00	1.67	436.8	5.88	75.0	21.4		"
8:23	4	22.02	1.40	444.0	5.89	65.4	21.4		"
8:26	5	22.06	1.35	449.3	5.90	60.0	21.4		"
8:29	6	22.08	1.14	462.0	5.92	52.4	21.4		"
8:32	7	22.10	0.93	475.0	5.93	44.1	21.4		"
8:35	8	22.14	0.87	485.1	5.95	39.5	21.3		"
8:38	9	22.13	0.76	495.2	5.97	34.4	21.3		"
8:41	10	22.16	0.64	508	6.00	28.0	21.3		"

Field QA Checks:
Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
Decontamination as per GHD procedure? (Y) / N
Was sampling equipment pre-cleaned? (Y) / N
COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

DUP = QC01 (ALS) Metal+Fe+Filtered 9+5 bottles

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM-BH06

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peri	SWL: 21.850 m — Logic Check: ✓
Project: Central Station Main Works	Sample Method: Peri	Screen: From:.....to..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ✓ — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth:.....m	Ref.datum: ..... — Well Cap Secure? Yes
Date: 27/1/21	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 35.65 m
Round January 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (Cuts)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11.10	1	21.945	0.58	1031	5.91	13.0	22.3		grey, slightly turbid, no sheen/
11.13	2	21.946	0.26	1054	5.66	56.7	22.2		odour, suc stable
11.16	3	21.946	0.22	1057	5.67	58.0	22.2		"
11.19	4	21.945	0.16	1059	5.62	63.7	22.2		"
11.22	5	21.946	0.13	1058	5.60	67.3	22.2		"
11.25	6	21.946	0.12	1059	5.62	65.2	22.2		stable, sampled

Field QA Checks:

Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
Decontamination as per GHD procedure? (Y) / N
Was sampling equipment pre-cleaned? (Y) / N
COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles — Metal / Fe filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

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Purging and Sampling Record

Bore ID: CSM_BH08

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: QED MP10	SWL: 14.75 m — Logic Check: ✓
Project: Central Station Main Works	Sample Method: "	Screen: From: ..... to ..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ✓ — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth: 25 m	Ref.datum: ..... — Well Cap Secure? Yes
Date: 28/1/2021	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 34.90 m
Round January 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L .....)	Elec.Cond (µS/cm .....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
8:00	1	14.75	2.10	524	5.76	73.3	21.3		Cloudy, no odour/sheen
8:03	2	14.75	0.81	527	5.88	50.4	21.2		"
8:06	3	14.76	0.48	527	6.10	20.5	21.2		"
8:09	4	14.76	0.29	528	6.14	7.0	21.2		"
8:11	5	14.76	0.22	528	6.00	19.5	21.2		"
8:14	6	14.76	0.20	529	5.97	25.4	21.3		"
8:19	7	14.76	0.25	530	5.98	29.7	21.4		"
8:22	8	14.76	0.20	528	5.88	34.7	21.2		"
8:25	9	14.76	0.22	529	5.90	34.0	21.2		"
8:28	10	14.76	0.20	529	5.92	30.0	21.2		"

Field QA Checks:

Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)

Decontamination as per GHD procedure? (Y) / N

Was sampling equipment pre-cleaned? (Y) / N

COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Metals + Fe2+ filtered — 9 bottles

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH105

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 28/1/2021
- Round January 2021

Sampling Information
- Purge Method: Pen
- Sample Method: Pen
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 8 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 4.300 m
- Screen: From:.....to..... m
- NAPL Check:.....
- Ref.datum: .....
- Bore Depth: 9.72 m
- Logic Check: /
- Stick Up: ..... m
- Bore Diam.: 50 mm
- Well Cap Secure? Yes

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:20	1	4.51	1.32	272.2	5.24	203.6	21.4		Cloudy, no odour/clear
9:23	2	4.60	0.66	271.9	5.24	212.6	21.4		"
9:26	3	4.66	0.49	270.3	5.24	219.3	21.3		"
9:29	4	4.71	0.42	270.6	5.25	222.6	21.3		"
9:32	5	4.72	0.34	269.8	5.25	226.2	21.3		"
9:35	6	4.77	0.29	270.1	5.26	229.0	21.4		"
9:38	7	4.80	0.24	270.0	5.28	232.0	21.3		"
9:41	8	4.84	0.20	267.9	5.27	234.4	21.3		"
9:45	9	4.86	0.19	266.7	5.27	236.4	21.2		"

Field QA Checks:
- Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
- Decontamination as per GHD procedure? (Y) / N
- Was sampling equipment pre-cleaned? (Y) / N
- COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe3 filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM-BH115

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: —	SWL: DRY m — Logic Check: ✓
Project: Central Station Main Works	Sample Method: —	Screen: From: ✓ to: ✓ m — Stick Up: ✓ m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ✓ — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth: — m	Ref.datum: ✓ — Well Cap Secure? Yes
Date: 29/1/21	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 5.70 m
Round January 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	DRY								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_DH7

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: DRY	SWL: DRY m — Logic Check: ✓
Project: Central Station Main Works	Sample Method:	Screen: From:.....to..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check:✓ — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth:.....m	Ref.datum: ..... — Well Cap Secure? Yes
Date: 28/1/21	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 6.20 m
Round January 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
		DRY							

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

DRY

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASL_BH10

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 27/1/2021
Round January 2021

Sampling Information

Purge Method: QED nV10
Sample Method: "
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 24.3 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 20.370 m Logic Check: /
Screen: From: / to: / m Stick Up: / m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: / Well Cap Secure? Ye
Bore Depth: 24.81 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (%/mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10:17	1	21.61	1.85	1361	6.46	-46.2	20.3		Grey, cloudy/sediment, no odour/sheen
10:20	2	22.01	0.55	1359	6.46	-52.0	20.3		"
10:23	3	22.42	0.25	1365	6.46	-54.8	20.2		"

Field QA Checks:

Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
Decontamination as per GHD procedure? (Y) / N
Was sampling equipment pre-cleaned? (Y) / N
COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles Metals+Fe⊠ filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASV_BH11

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 28/1/21
Round January 2021

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 8 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 7.245 m Logic Check: /
Screen: From: /to m Stick Up: m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 8.05 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (%/mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10:36	1	7.45	2.00	3723	6.18	52.5	20.7		Dam cloudy, no odour flow
		Very little water, grab sample taken							

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles. Metals + [illegible] filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASWL0023

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 28/1/21
- Round January 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 3.5 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 2.80 m Logic Check: /
- Screen: From: / to: / m Stick Up: / m
- NAPL Check: / Bore Diam.: 50 mm
- Ref.datum: / Well Cap Secure? Yes
- Bore Depth: 3.92 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (C.uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11.33	0.5	2.749	0.51	1175	7.00	-118.0	21.6		clear/grey w/ black sediment. Strong
11.36	1.5	2.81	0.27	1160	7.02	-129.4	21.7		HC odour, no sheen
11.39	2.5	2.81	0.22	1032	7.01	-120.5	21.9		"
11.42	3.5	2.81	0.26	891	6.96	-99.4	22.0		SWL stable
11.45	4.5	2.81	0.18	747	6.85	-76.9	22.1		"
11.48	5.5	2.81	0.13	734	6.75	-46.2	22.1		"
11.51	6.5	2.81	0.11	725	6.73	-36.7	22.1		"
11.54	7.5	2.81	0.10	724	6.72	-30.8	22.1		Stable, S sampled

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

5 bottles, Metals + Ferr filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASC-BH25A

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 28/1/2021
- Round January 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N
- Pump Depth: 2.8 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 1.18 m
- Logic Check: /
- Screen: From: / to: m
- Stick Up: m
- NAPL Check: /
- Bore Diam.: 50 mm
- Ref.datum:
- Well Cap Secure? Yes
- Bore Depth: 2.95 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11:01	1	1.20	1.75	401.8	7.39	-28.3	21.9		Grey cloudy, some sed, HC odour, no sheen
11:04	2	1.20	2.75	396.5	7.45	-29.8	22.2		"
11:07	3	1.20	3.79	396.9	7.51	-21.3	22.4		"
11:10	4	1.20	3.85	400.2	7.54	-13.1	22.5		"
11:13	5	1.20	3.76	404.0	7.55	-1.0	22.7		"
11:16	6	1.20	3.89	405.1	7.55	7.5	22.7		"

Field QA Checks:
- Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
- Decontamination as per GHD procedure? (Y) / N
- Was sampling equipment pre-cleaned? (Y) / N
- COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe + filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH647

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 29/1/2021
Round January 2021

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 6.8 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 4.262 m Logic Check: /
Screen: From: / to: / m Stick Up: / m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: / Well Cap Secure? Yes
Bore Depth: 6.97 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (mS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10:20	1	4.82	2.35	292.6	6.15	201.8	20.1		Clear, no odour/sheen
10:23	2	5.09	2.13	281.5	6.04	205.1	20.1		"
10:27	3	5.67	2.13	272.8	5.94	210.2	20.2		"
10:31	4	5.91	2.18	277.1	5.92	211.6	20.2		"
10:35	5	6.24	2.71	287.5	6.05	211.0	20.2		"

Field QA Checks:

Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
Decontamination as per GHD procedure? (Y) / N
Was sampling equipment pre-cleaned? (Y) / N
COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe2 filtered.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SKT_BH050

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 29/1/21
Round January 2021

Sampling Information

Purge Method: DRY
Sample Method:
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: Dry m Logic Check: /
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Yes
Bore Depth: 2.77 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	DRY								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

GHD | MANAGEMENT ENGINEERING ENVIRONMENT

Purging and Sampling Record

Bore ID: SRT_BH052

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 29/1/21
Round January 2021

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 7.5 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 6.15 m Logic Check: /
Screen: From: / to: m Stick Up: / m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 7.09 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9:46	1	6.49	5.35	395.4	6.49	170.8	20.2		Clear, no odour/flow
9:50	2	6.88	3.72	377.7	6.03	191.0	20.2		"
9:54	3	7.04	3.45	392.3	6.01	194.8	20.2		"
9:58	4	7.30	3.81	357.0	6.07	195.5	20.2		"

Field QA Checks:

Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
Decontamination as per GHD procedure? (Y) / N
Was sampling equipment pre-cleaned? (Y) / N
COC updated? (Y) / N

Parameters / Preservatives	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Metals + Fe2 filtered 9 bottles

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH02

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 18/2/21
- Round February 2021

Sampling Information
- Purge Method: QED
- Sample Method: QED
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 28 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 24.08 m Logic Check: ——
- Screen: From: —— to —— m Stick Up: —— m
- NAPL Check: —— Bore Diam.: 50 mm
- Ref.datum: —— Well Cap Secure? Y
- Bore Depth: 33.27 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
8:37	1	24.50	1.64	1020	7.54	78.7	21.3		Brown clarity some sediments, no odour/sheen
8:41	2	24.63	1.50	1017	7.39	79.6	21.2		"
8:44	3	24.81	1.50	1016	7.33	79.1	21.0		"
8:47	4	24.98	1.36	1022	7.25	78.3	21.0		"
8:50	5	25.08	1.43	1021	7.26	76.9	21.0		"
8:53	6	25.21	1.35	1017	7.24	74.6	21.0		"

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + PFAS filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH04

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 17/2/2021
- Round February 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: 4
- WQ Meter Type: YSI
- Flow Cell: Y / N — Pump Depth: 25 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 21.795 m — Logic Check: ✓
- Screen: From: ..... to: ..... m — Stick Up: ✓ m
- NAPL Check: ✓ — Bore Diam.: 50 mm
- Ref.datum: ✓ — Well Cap Secure? Yes
- Bore Depth: 33.65 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
8:44	1	22.04	1.66	424.8	6.95	105.2	21.6		Dark, cloudy, no odour/flow
8:47	2	22.05	1.49	420.4	6.38	109.7	21.7		"
8:51	3	22.06	2.01	425.1	6.00	102.8	21.6		"
8:55	4	22.06	2.16	434.8	5.77	100.1	21.5		"
8:58	5	22.07	2.16	440.4	5.65	98.6	21.5		"
9:01	6	22.10	2.13	448.7	5.62	96.3	21.5		"

Field QA Checks:
- Air bubbles in vials? Y / N — Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

DUP = QC01 (Eurofins) 9+5 Lx16 Metals+Fe 27 filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH06

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 18/2/21
- Round February 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: QED MP10
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 30 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 24.26 m
- Screen: From: ~ to ~ m
- NAPL Check: ~
- Ref.datum: ~
- Bore Depth: 35.58 m
- Logic Check: ~
- Stick Up: ~ m
- Bore Diam.: 50 mm
- Well Cap Secure? Y

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
11.06	1	24.32	2.74	1042	6.71	28.2	23.8		grey cloudy, no sheen no odour
11.09	2	24.30	2.36	1023	6.51	36.7	23.2		soil stable
11.12	3	24.30	3.18	1022	6.48	35.4	23.3		"
11.15	4	24.30	3.16	1022	6.46	31.3	23.3		"
11.18	5	24.30	~~2.09~~	1024	6.43	27.4	23.3		DO = 0.93
11.21	6	24.30	0.83	1013	6.40	22.9	23.2		"
11.24	7	24.30	0.87	1012	6.40	23.0	23.2		"
11.27	8	24.30	0.81	1008	6.38	22.2	23.2		sampled

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe++ filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH08

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 19/2/2021
- Round February 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 28 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 16.910 m Logic Check: /
- Screen: From: ..... to ..... m Stick Up: ..... m
- NAPL Check: / Bore Diam.: 50 mm
- Ref.datum: / Well Cap Secure? Yes
- Bore Depth: 34.95 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:41	1	16.95	0.31	633	6.67	-0.2	21.9		Dam cloudy, no odour/sheen
9:44	2	16.95	0.18	633	6.57	2.2	21.5		"
9:47	3	16.95	0.09	633	6.47	2.5	21.8		"
9:50	4	16.95	0.09	633	6.45	2.1	21.8		"
9:53	5	16.95	0.11	632	6.44	1.7	21.8		"
9:56	6	16.95	0.10	632	6.44	1.8	21.8		"

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe + 6 Metals

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH105

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 17/2/2021
- Round February 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 9 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 4.010 m Logic Check: /
- Screen: From: / to: / m Stick Up: / m
- NAPL Check: / Bore Diam.: 50 mm
- Ref.datum: Well Cap Secure? Yes
- Bore Depth: 9.72 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (Cus/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9.26	0.5	4.235	0.54	259.4	5.52	159.8	21.7		slightly turbid, light brown, no sheen, no odour
9.29	1	4.345	0.47	255.3	5.37	172.2	21.7		" "
9.32	1.5	4.390	0.48	254.0	5.34	181.7	21.7		" "
9.35	2	4.435	0.61	252.9	5.31	184.6	21.7		" "
9.38	2.5	4.510	0.73	251.8	5.30	185.6	21.7		" "
9.41	3	4.555	0.90	250.6	5.28	187.2	21.7		" "
9.44	3.5	4.64	1.00	249.4	5.28	186.6	21.7		" "
9.47	4.0	4.68	1.03	249.8	5.27	186.1	21.7		Stable, Sampled

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Metals+Fe2+ filtered DUP = QC02 (ALS)

9+5 bottles

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CON_BH115

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 17/2/2021
Round February 2021

Sampling Information

Purge Method: DRY
Sample Method:
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: DRY m Logic Check: /
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Yes
Bore Depth: 5.71 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
		DRY							
		/							

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASL_DH7

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	**Purge Method:** DPM	**SWL:** PRT ..... m **Logic Check:** .....
Project: Central Station Main Works	**Sample Method:**	**Screen:** From:..... to..... m **Stick Up:** ..... m
Proj. No.: 21-27234	**WQ Meter Type:** YSI	**NAPL Check:**..... **Bore Diam.:** 50 mm
Sampler: T. Nham / J. Vickers	**Flow Cell:** Y / N **Pump Depth:**.....m	**Ref.datum:** ..... **Well Cap Secure?**.....
Date: 17/2/21	**WLevel Meter Type:** Dip / Fox / Int.Fce / Gge	**Bore Depth:** 6.21 m
Round February 2021	**Field Filtered?** Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	DPM								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH10

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 18/2/2021
- Round: February 2021

Sampling Information
- Purge Method: RFD MP10
- Sample Method: H
- WQ Meter Type: YSI
- Flow Cell: Y / N — Pump Depth: 24 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 22.48 m — Logic Check: ✓
- Screen: From: ..... to ..... m — Stick Up: ..... m
- NAPL Check: ..... — Bore Diam.: 50 mm
- Ref.datum: ..... — Well Cap Secure?: Yes
- Bore Depth: 24.90 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9:42	1	23.56	0.34	1277	6.83	83.5	21.3		Grey, lots of sediment, organic odour, no sheen
	Very little water, no recharge, grab sample taken								

Field QA Checks:
- Air bubbles in vials? Y / N — Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe2+ filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH11

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / J. Vickers
Date: 17/2/21
Round February 2021

Sampling Information

Purge Method:
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 8 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 7.215 m Logic Check: /
Screen: From:.....to..... m Stick Up: ..... m
NAPL Check:..... Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Yes
Bore Depth: 8.08 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
1:13	0.5	—	1.69	329.0	6.17	95.1	21.4		Brown cloudy, no odour/sheen
1:16	DCY	pH	1.56	326.0	6.12	78.5	21.3		1)
		Very little water, pH sample taken							

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fort filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH23

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 17/2/21
- Round February 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 3.2 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: ~~2.44~~ 2.41 m Logic Check: —
- Screen: From: —— to —— m Stick Up: 0 m
- NAPL Check: — Bore Diam.: 50 mm
- Ref.datum: — Well Cap Secure? Y
- Bore Depth: 3.9 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (C uncorr)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
14.00	1	2.44	0.70	1087	6.92	-148.7	23.1		Strong HC odour, clear, no
14.03	2	2.45	0.68	964	7.03	-153.4	23.2		sheen
14.06	3	2.45	0.40	854	7.07	-137.7	23.4		"
14.09	4	2.45	0.30	808	7.07	-133.4	23.6		SWL stable
14.12	5	2.45	0.35	780	7.06	-131.5	23.6		"
14.15	6	2.45	0.38	767	7.06	-130.1	23.4		"

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles Metals + Fe2 filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASV_BH25A

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Peri	SWL: 1.110 m
Project: Central Station Main Works	Sample Method: Peri	Screen: From: ..... to ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: .....
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N Pump Depth: 2.5 m	Ref.datum: .....
Date: 17/2/21	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 2.955 m
Round February 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	Logic Check: ..... Stick Up: ..... m Bore Diam.: 50 mm Well Cap Secure? Yes

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
1:24	1	1.12	0.22	437.2	7.01	-163.6	23.0		Grey cloudy, mod sediment, HC odour, no sheen
1.27	2	1.13	1.17	386.5	7.23	-99.2	23.2		"
1.30	3	1.14	1.63	358.1	7.31	-48.5	23.3		"
1.33	4	1.16	1.72	347.8	7.33	-22.1	23.2		"
1.36	5	1.19	1.76	341.5	7.36	-10.7	23.3		"
1.39	6	1.21	1.85	341.5	7.38	-8.7	23.3		" Sampled

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N

Decontamination as per GHD procedure? Y / N

Was sampling equipment pre-cleaned? Y / N

COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 L dlw. Metal + Fe2+ filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH047

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: Pen	SWL: 3.70 m Logic Check: /
Project: Central Station Main Works	Sample Method: Pen	Screen: From: / to: m Stick Up: m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: / Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N Pump Depth: 6.5 m	Ref.datum: Well Cap Secure? Yes
Date: 17/2/2021	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 6.975 m
Round February 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11:41	1	4.24	3.31	262.3	6.12	165.2	20.6		clear/cloudy, no odour/flow
11:44	2	4.48	3.32	247.8	5.95	165.8	20.6		"
11:47	3	4.73	3.38	241.6	5.83	167.9	20.6		"
11:50	4	5.02	3.28	240.0	5.79	169.2	20.7		"
11:54	5	5.30	3.38	240.7	5.76	169.1	20.7		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N

Decontamination as per GHD procedure? Y / N

Was sampling equipment pre-cleaned? Y / N

COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles Metals + Fe24 filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH050

Job Information	Sampling Information	Bore Information
Client: Laing O'Rourke / Sydney Metro	Purge Method: ——	SWL: 2.51 m — Logic Check: ✓
Project: Central Station Main Works	Sample Method: Peri	Screen: From:..... to:..... m — Stick Up: ..... m
Proj. No.: 21-27234	WQ Meter Type: YSI	NAPL Check: ✓ — Bore Diam.: 50 mm
Sampler: T. Nham / J. Vickers	Flow Cell: Y / N — Pump Depth: 2.7 m	Ref.datum: ✓ — Well Cap Secure? Yes
Date: 17/2/24	WLevel Meter Type: Dip / Fox / Int.Fce / Gge	Bore Depth: 2.76 m
Round February 2021	Field Filtered? Y / N (filter vessel, disposable filter/syringe)	

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	Dry (No water prior sample taken)								Clear, no odour Clear

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N

Decontamination as per GHD procedure? Y / N

Was sampling equipment pre-cleaned? Y / N

COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

8 Lottles Metals+Fe Filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH052

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / J. Vickers
- Date: 17/2/21
- Round February 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 7.8 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 6.040 m Logic Check: .....
- Screen: From:.....to..... m Stick Up: ..... m
- NAPL Check:..... Bore Diam.: 50 mm
- Ref.datum: ..... Well Cap Secure? Yes
- Bore Depth: 7.92 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10:50	1	6.41	5.47	346.5	6.24	160.2	20.7		clear, no odour/flow
10.53	2	6.63	5.07	311.0	6.17	161.3	20.7		
10.56	3	6.785	4.82	287.6	5.98	166.0	20.8		
10.59	4	6.99	4.58	293.6	5.97	165.7	20.7		
11.02	5	7.08	4.82	295.7	5.97	165.9	20.7		

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles. Metals Fe+Mn filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSMBH02

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 17/3/21
- Round: March 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 31 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 26.09 m
- Screen: From: ..... to ..... m
- NAPL Check: /
- Ref.datum: /
- Bore Depth: 33.25 m
- Logic Check: /
- Stick Up: / m
- Bore Diam.: 50 mm
- Well Cap Secure? Yes

Time (...am..)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11:27	1	26.49	3.19	598	6.73	195.8	21.0		Light brown, some sediment,
11:30	2	26.61	2.81	597	6.77	193.6	20.9		No odour, no sheen
11:33	3	26.74	2.66	598	6.82	192.2	20.9		Moderately turbid.
11:36	4	26.92	2.57	600	6.88	191.3	20.9		
11:39	5	27.10	2.56	600	6.91	190.0	20.9		

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals filtered.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH04

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 17/3/2021
- Round: March 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N
- Pump Depth: 28 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 21.89 m
- Logic Check: ✓
- Screen: From: ..... to ..... m
- Stick Up: ..... m
- NAPL Check: ✓
- Bore Diam.: 50 mm
- Ref.datum: ✓
- Well Cap Secure? Yes
- Bore Depth: 33.78 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
9:38	1	22.19	2.90	484.2	6.03	44.4	21.4		Light brown, some sediment
9:41	2	22.20	1.81	460.1	5.99	51.7	21.4		No odour, no sheen.
9:44	3	22.26	1.20	453.5	5.98	56.4	21.3		
9:48	4	22.30	0.84	455.4	5.99	55.5	21.3		
9:51	5	22.32	0.75	462.6	6.03	52.0	21.3		
9:54	6	22.35	0.74	467.7	6.05	48.0	21.3		
9:57	7	22.37	0.72	476.9	6.09	39.7	21.2		
10:00	8	22.40	0.69	485.4	6.11	29.0	21.2		

Field QA Checks:
- Air bubbles in vials? Y / N (3) Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N (5)
- Was sampling equipment pre-cleaned? Y / N (5)
- COC updated? Y / N (2)

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles + 4 metals filtered.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH06

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 17/3/21
- Round: March 2021

Sampling Information
- Purge Method: GSD MP10
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 31 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 26.37 m
- Screen: From: ..... to ..... m
- NAPL Check: .....
- Ref.datum: .....
- Bore Depth: 35.80 m
- Logic Check: ✓
- Stick Up: ..... m
- Bore Diam.: 50 mm
- Well Cap Secure? Yes

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L...)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
14:20	1	26.45	4.98	998	6.53	165.5	22.4		Light brown, no odour, no sheen
14:23	2	26.45	3.65	995	6.53	146.3	22.3		slightly turbid, slight sediment
14:26	3	26.44	3.16	992	6.51	135.8	22.2		
14:29	4	26.44	2.72	992	6.52	128.4	22.2		Clear.
14:32	5	26.44	2.58	993	6.52	124.7	22.2		
14:35	6	26.44	2.44	993	6.53	123.2	22.2		

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals filtered.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: CSM_BH08

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 17/3/2021
- Round: March 2021

Sampling Information
- Purge Method: QED MP10
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N — Pump Depth: 25 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge

Bore Information
- SWL: 18.77 m — Logic Check: /
- Screen: From: ..... to: ..... m — Stick Up: ..... m
- NAPL Check: / — Bore Diam.: 50 mm
- Ref.datum: ..... — Well Cap Secure? Yes
- Bore Depth: 35.47 m

Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (uS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
7:48	1	18.74	2.00	612	6.32	-1.8	21.2		red orange, moderate
7:51	2	18.74	1.45	614	6.32	-4.0	21.2		"
7:54	3	18.74	1.73	615	6.31	-6.4	21.2		"
7:57	4	18.74	1.87	617	6.32	-3.7	21.2		"
8:00	5	18.74	1.62	618	6.29	-9.6	21.2		"
8:03	6	18.74	1.58	618	6.31	-11.3	21.2		"

Field QA Checks:
- Air bubbles in vials? Y / N — Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9+4 bottles — DUP: QC01

Metals + C24 filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

GHD MANAGEMENT ENGINEERING ENVIRONMENT

Purging and Sampling Record

Bore ID: CSM_BH105

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 17/03/21
- Round March 2021

Sampling Information
- Purge Method: (QED) MP10
- Sample Method: "
- WQ Meter Type: YSI
- Flow Cell: Y / N — Pump Depth: 9 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 3.88 m — Logic Check: .....
- Screen: From: ..... to ..... m — Stick Up: ..... m
- NAPL Check: ..... — Bore Diam.: 50 mm
- Ref.datum: ..... — Well Cap Secure? YES
- Bore Depth: 9.80 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
10:23	1	4.28	1.51	270.8	5.00	184.2	21.6		Light brown, some sediment
10:27	2	4.39	0.76	268.6	5.02	203.3	21.6		No odour, no sheen.
10:30	3	4.50	0.56	267.1	5.12	207.4	21.6		very turbid.
10:33	4	4.57	0.48	266.6	5.21	211.1	21.6		
10:36	5	4.62	0.42	264.6	5.24	214.5	21.6		
10:39	6	4.67	0.37	263.7	5.28	215.2	21.5		

Field QA Checks:
- Air bubbles in vials? Y / (N) Any violent reactions? Y / (N)
- Decontamination as per GHD procedure? (Y) / N
- Was sampling equipment pre-cleaned? (Y) / N
- COC updated? (Y) / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals filtered. +Fe2+

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GA54-BH7

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / C. Gray
Date: 17/3/21
Round March 2021

Sampling Information

Purge Method: DRY
Sample Method:
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:.....m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: DRY m
Screen: From:..... to..... m
NAPL Check:.....
Ref.datum: .....
Bore Depth: 6.16 m
Logic Check: ✓
Stick Up: ..... m
Bore Diam.: 50 mm
Well Cap Secure? Y

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	DRY								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASWLBH10

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / C. Gray
Date: 17/3/21
Round March 2021

Sampling Information

Purge Method: Bailer
Sample Method: (1)
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth:—m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 23.62 m Logic Check: ✓
Screen: From:/ to m Stick Up: ✓ m
NAPL Check: Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 24.92 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
	Very little water, grab sample taken using bailer. Not enough water for parameters								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Fe 24 filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GASW_BH11

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / C. Gray
Date: 18/3/21
Round March 2021

Sampling Information

Purge Method: Bail
Sample Method: Bail
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 8 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 7.16 m Logic Check: /
Screen: From: ..... to ..... m Stick Up: ..... m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: / Well Cap Secure? YES
Bore Depth: 8.04 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11:02	-		6.64	273.1	5.78	135.4	21.0		Grey cloudy, no sheen, no odour
	Grab sample taken.								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals + Fe^{2+} filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GAS V_BH27

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / C. Gray
Date: 18/3/2021
Round March 2021

Sampling Information

Purge Method: Peri
Sample Method: Peri
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 3.5 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 2.025 m Logic Check: /
Screen: From: / to: m Stick Up: / m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: Well Cap Secure? Yes
Bore Depth: 3.91 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
1:12	1	2.05	3.14	1008	7.02	-123.5	22.4		Clear, HC odour, no sheen
1:15	2	2.05	1.30	998	7.05	-125.8	22.4		" "
1:18	3	2.05	0.51	807	7.05	-120.5	22.5		"
1:21	4	2.05	0.23	697	7.02	-117.2	22.6		"
1:24	5	2.05	0.13	629	7.00	-115.7	22.3		"
1:27	6	2.05	0.05	580	6.98	-112.8	22.7		"
1:30	7	2.05	0.04	578	6.97	-112.4	22.6		"
1:33	8	2.05	0.06	577	6.97	-112.2	22.6		"

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals + Fe2+ filtered

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: GADW_BH25A

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 18/3/21
- Round March 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 2.5 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 0.705 m Logic Check: /
- Screen: From: / to: / m Stick Up: / m
- NAPL Check: / Bore Diam.: 50 mm
- Ref.datum: / Well Cap Secure? Yes
- Bore Depth: 2.95 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
11:21	1	0.70	1.59	336.2	7.46	-32.9	21.7		Grey dark, HC odour / no flow
11:24	2	0.70	1.82	312.[illegible]	7.80	-12.9	21.7		"
11:28	3	0.70	3.34	208.5	8.62	-44.5	21.5		"
11:32	4	0.70	4.91	191.5	9.03	-69.5	21.5		"
11:36	5	0.70	5.23	172.5	8.86	-80.7	21.5		"
11:40	6	0.70	4.07	203.4	7.99	-94.6	21.8		"
11:43	7	0.70	3.36	235.3	7.66	-99.8	22.0		"
11:46	8	0.70	3.00	272.5	7.57	-102.6	22.0		"
11:49	9	0.70	2.50	304.1	7.43	-105.7	22.2		"
11:52	10	0.70	2.15	318.5	7.38	-107.6	22.2		"

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, Metals + Eco filtered

Heavy rain, surface flow into well

can not stop.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH047

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 18/3/21
- Round: March 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N
- Pump Depth: 6.5 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 3.41 m
- Logic Check: /
- Screen: From: / to: m
- Stick Up: m
- NAPL Check: /
- Bore Diam.: 50 mm
- Ref.datum:
- Well Cap Secure? Y
- Bore Depth: 6.98 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	-		
9:23	1.5	4.15	3.37	269.4	5.99	223.7	20.8		Light brown, low turbidity,
9:26	2	4.37	2.64	261.9	5.88	229.1	20.8		slight sediment, no odour,
9:30	3	4.67	2.45	252.7	5.72	235.0	20.8		no sheen.
9:33	4	4.92	2.37	245.7	5.74	237.6	20.8		
9:36	5	5.12	2.35	243.0	5.72	239.6	20.8		

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals + Fe^{2+} filtered.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRTBH050

Job Information

Client: Laing O'Rourke / Sydney Metro
Project: Central Station Main Works
Proj. No.: 21-27234
Sampler: T. Nham / C. Gray
Date: 18/3/21
Round March 2021

Sampling Information

Purge Method: Peri
Sample Method: "
WQ Meter Type: YSI
Flow Cell: Y / N Pump Depth: 2.7 m
WLevel Meter Type: Dip / Fox / Int.Fce / Gge
Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information

SWL: 2.43 m Logic Check: /
Screen: From: ..... to: ..... m Stick Up: ..... m
NAPL Check: / Bore Diam.: 50 mm
Ref.datum: ..... Well Cap Secure? Ya
Bore Depth: 2.75 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (.....)	Elec.Cond (.....)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		*stable*	*+/- 10%*	*+/- 3%*	*+/- 0.05 pH*	*+/- 10 mV*	*-*		
	Very little water, grab sample taken								

Field QA Checks:

Air bubbles in vials? Y / N Any violent reactions? Y / N
Decontamination as per GHD procedure? Y / N
Was sampling equipment pre-cleaned? Y / N
COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metal + Fe to Lfield

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Purging and Sampling Record

Bore ID: SRT_BH052

Job Information
- Client: Laing O'Rourke / Sydney Metro
- Project: Central Station Main Works
- Proj. No.: 21-27234
- Sampler: T. Nham / C. Gray
- Date: 17/3/2021
- Round March 2021

Sampling Information
- Purge Method: Peri
- Sample Method: Peri
- WQ Meter Type: YSI
- Flow Cell: Y / N Pump Depth: 7.5 m
- WLevel Meter Type: Dip / Fox / Int.Fce / Gge
- Field Filtered? Y / N (filter vessel, disposable filter/syringe)

Bore Information
- SWL: 5.70 m Logic Check: /
- Screen: From: ..... to ..... m Stick Up: ..... m
- NAPL Check: / Bore Diam.: 50 mm
- Ref.datum: / Well Cap Secure? Yes
- Bore Depth: 7.91 m

Time (.....)	Volume (L)	SWL mbtoc	Dis.Oxygen (mg/L)	Elec.Cond (µS/cm)	pH (pH units)	Ox-Red Pt. (± mV)	Temp (°C)	(.....)	Comment: Colour, turbidity, sediment load, sheen, odour, flow rate, purged dry?
Stable when (3 consecutive readings):		stable	+/- 10%	+/- 3%	+/- 0.05 pH	+/- 10 mV	-		
8:27	1	5.95	8.02	294.6	5.57	199.0	20.6		Clear, no odour, no sheen,
8:30	2	6.11	7.30	251.9	5.46	218.5	20.7		no sediment
8:35	3.5	~~6.33~~	6.90	248.7	5.58	227.0	20.7		
8:38	4.5	6.52	6.28	259.3	5.87	225.2	20.6		changed depth of pump. ~~7.75m~~ ~7.8m
8:45	5	6.63	5.66	321.4	6.45	221.9	20.9		
8:48	5.5	6.74	5.46	342.3	6.47	220.1	20.6		
8:51	6	6.90	5.39	312.3	6.27	220.7	20.6		Sampled due to water level.

Field QA Checks:
- Air bubbles in vials? Y / N Any violent reactions? Y / N
- Decontamination as per GHD procedure? Y / N
- Was sampling equipment pre-cleaned? Y / N
- COC updated? Y / N

Parameters	BTEX	TPH	PAH	CHC	PCB	OCP	OPP	Tot. Metal	Biol.				
Preservatives													

Comment: Duplicate samples collected, bottles used, access, condition of headworks etc

9 bottles, metals + Fe^{2+} filtered.

Purge Volumes

Casing Int. Dia (mm)	50	100	150
Vol (L/m of casing)	2.0	7.9	17.7

*Double for gravel pack

Appendix F
Laboratory analytical reports

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	Contact Name : Terry Nham / Jake Vickers	Purchase Order : 2127234	COC Number :
Office Address :	Project Manager : Henry Luo	PROJECT Number : 2127234	Eurofins | mgt quote ID : GHD Rates 2020
Level 15, 133 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	PROJECT Name : Central	Data output format: ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number:

Some common holding times (with correct preservation). For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations + Hardness		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)					Containers: 500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	Sample comments:
1	CSM_BH02	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
2	CSM_BH04	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
3	CSM_BH06	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
4	CSM_BH08	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
5	CSM_BH09S	28/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
6	CSM_BH10S	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
7	SRT_BH047	26/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
8	SRT_BH052	26/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
9	GASW_BH10	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
10	GASW_BH11	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
11	GASW_BH23	26/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
12	GASW_BH25A	27/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
13	QC01	27/10/20	Water	X	X																						2		2	2			
14	RB01	26/10/20	Water																			X					1						
15	SRT_BH059	26/10/20	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
16	Trip Blank	26/10/20	Water																		X								2				

Laboratory Staff

Relinquished By: Terry Nham - GHD
Date & Time : 28/10/2020
Signature: TN

Received By: M BIRKETT
Date & Time : 28/10/20 1pm
Signature:

Turn around time

1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment

☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 6.17 °C

Report number: 753369

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	Contact Name : Terry Nham / Jake Vickers	Purchase Order : 2127234	COC Number :
Office Address :	Project Manager : Henry Luo	PROJECT Number : 2127234	Eurofins | mgt quote ID : GHD Rates 2020
Level 15, 133 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	PROJECT Name : Central	Data output format: ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number:

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)					Sample comments:
1	Trip Spike	26/10/20	Water																X						
2																									
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
13																									
14																									
15																									
16																									

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag
				2			

Relinquished By: Terry Nham - GHD
Date & Time : 28/10/2020
Signature: TN

Laboratory Staff
Received By: M BIRUETI
Date & Time : 28/10/20 1pm
Signature:

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☒ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☒ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 6.17°C
Report number: 753369

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	GHD Pty Ltd NSW
Contact name:	Henry Luo
Project name:	CENTRAL
Project ID:	2127234
Turnaround time:	5 Day
Date/Time received	Oct 28, 2020 1:00 PM
Eurofins reference	753369

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 6.2 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Alena Bounkeua on phone : or by email: AlenaBounkeua@eurofins.com

Results will be delivered electronically via email to Henry Luo - henry.luo@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Henry Luo**

Report **753369-W-V3**
Project name CENTRAL
Project ID 2127234
Received Date Oct 28, 2020

Client Sample ID			**CSM_BH02**	**CSM_BH04**	**CSM_BH06**	**CSM_BH08**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S20-Oc47887**	**S20-Oc47888**	**S20-Oc47889**	**S20-Oc47890**
Date Sampled			**Oct 27, 2020**	**Oct 27, 2020**	**Oct 27, 2020**	**Oct 27, 2020**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	0.08	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	74	80	71	69
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47887	S20-Oc47888	S20-Oc47889	S20-Oc47890
Date Sampled			Oct 27, 2020	Oct 27, 2020	Oct 27, 2020	Oct 27, 2020
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	48	37	40	42
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	0.00007	< 0.00001	0.00009
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	0.00011	< 0.00001	0.00017
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	0.00007	< 0.00001	0.00015
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	0.00006	< 0.00001	0.00014
Chrysene	0.00001	mg/L	< 0.00001	0.00008	< 0.00001	0.00015
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	0.00007	< 0.00001	0.00017
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	0.00005	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	0.00006	< 0.00001	0.00004
Pyrene	0.00001	mg/L	< 0.00001	0.00015	< 0.00001	0.00017
Total PAH*	0.00001	mg/L	< 0.00001	0.00072	< 0.00001	0.00108
2-Fluorobiphenyl (surr.)	1	%	53	51	66	50
p-Terphenyl-d14 (surr.)	1	%	149	112	81	87
Ammonia (as N)	0.01	mg/L	< 0.01	0.07	0.13	0.02
Chloride	1	mg/L	110	120	310	110
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	5.6	6.2	3.4
pH (at 25 °C)	0.1	pH Units	7.1	6.4	6.6	5.6
Sulphate (as SO4)	2	mg/L	46	50	37	60
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	300	220	390	250

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47887	S20-Oc47888	S20-Oc47889	S20-Oc47890
Date Sampled			Oct 27, 2020	Oct 27, 2020	Oct 27, 2020	Oct 27, 2020
Test/Reference	LOR	Unit				
Total Suspended Solids Dried at 103–105°C	5	mg/L	2800	1500	120	15
Hardness mg equivalent CaCO3/L	1	mg/L	230	120	180	89
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	240	88	110	97
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	240	88	110	97
Alkali Metals						
Calcium	0.5	mg/L	41	14	26	17
Magnesium	0.5	mg/L	32	21	28	12
Potassium	0.5	mg/L	7.1	6.6	4.4	7.2
Sodium	0.5	mg/L	86	69	120	79
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	0.002	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.001
Copper (filtered)	0.001	mg/L	0.005	0.010	0.019	0.008
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.040	0.33	0.33	0.21
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.007	0.037	0.018	0.020
Zinc (filtered)	0.005	mg/L	0.024	0.093	0.085	0.21

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH052
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47891	S20-Oc47892	S20-Oc47893	S20-Oc47894
Date Sampled			Oct 28, 2020	Oct 27, 2020	Oct 26, 2020	Oct 26, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	0.2	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	0.2	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	85	80	84	71
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH052
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47891	S20-Oc47892	S20-Oc47893	S20-Oc47894
Date Sampled			Oct 28, 2020	Oct 27, 2020	Oct 26, 2020	Oct 26, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	0.2	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	0.2	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	50	36	48	35
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH052
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47891	S20-Oc47892	S20-Oc47893	S20-Oc47894
Date Sampled			Oct 28, 2020	Oct 27, 2020	Oct 26, 2020	Oct 26, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	51	88	69	99
p-Terphenyl-d14 (surr.)	1	%	78	96	69	80
Ammonia (as N)	0.01	mg/L	0.04	0.02	< 0.01	0.04
Chloride	1	mg/L	69	39	41	69
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	5.7	< 0.5	< 0.5	< 0.5
pH (at 25 °C)	0.1	pH Units	6.3	5.1	7.6	6.9
Sulphate (as SO4)	2	mg/L	190	100	47	56
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	280	170	200	190
Total Suspended Solids Dried at 103–105°C	5	mg/L	98	7900	14	310
Hardness mg equivalent CaCO3/L	1	mg/L	41	120	150	90
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	59	43	96	71
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	59	43	96	71
Alkali Metals						
Calcium	0.5	mg/L	3.6	16	42	26
Magnesium	0.5	mg/L	7.7	19	11	6.0
Potassium	0.5	mg/L	3.0	12	0.8	3.2
Sodium	0.5	mg/L	110	33	30	56
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.11	0.006	0.11	0.069
Lead (filtered)	0.001	mg/L	0.001	< 0.001	0.002	0.002
Manganese (filtered)	0.005	mg/L	0.89	0.61	0.007	0.005
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.017	0.015	0.013	0.010
Zinc (filtered)	0.005	mg/L	0.10	0.14	0.12	0.093

Client Sample ID			GASW_BH10	GASW_BH11	GASW_BH23	[R16]GASW_BH25A
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47895	S20-Oc47896	S20-Oc47897	S20-Oc47898
Date Sampled			Oct 27, 2020	Oct 27, 2020	Oct 26, 2020	Oct 27, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	1.8
TRH C10-C14	0.05	mg/L	< 0.05	0.22	0.09	0.43
TRH C15-C28	0.1	mg/L	< 0.1	0.3	< 0.1	0.3
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	0.52	< 0.1	0.73
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	0.009	1.2
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.36
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.021
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	0.080
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.029
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	0.11
4-Bromofluorobenzene (surr.)	1	%	68	62	77	103
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.2
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	1.9
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	0.21
TRH >C10-C16	0.05	mg/L	< 0.05	0.36	0.12	0.47
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	0.36	0.12	0.47
TRH >C16-C34	0.1	mg/L	< 0.1	0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	0.46	0.12	0.47
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	0.053	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	0.014
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	39	43	47	51
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			GASW_BH10	GASW_BH11	GASW_BH23	[R16]GASW_BH25A
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47895	S20-Oc47896	S20-Oc47897	S20-Oc47898
Date Sampled			Oct 27, 2020	Oct 27, 2020	Oct 26, 2020	Oct 27, 2020
Test/Reference	LOR	Unit				
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	86	62	89	83
p-Terphenyl-d14 (surr.)	1	%	80	105	88	74
Ammonia (as N)	0.01	mg/L	< 0.01	0.13	0.06	0.14
Chloride	1	mg/L	310	74	29	27
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	0.004
Ferrous Iron - Fe2+	0.5	mg/L	4.6	< 0.5	0.8	2.0
pH (at 25 °C)	0.1	pH Units	6.9	6.6	7.2	7.3
Sulphate (as SO4)	2	mg/L	10	73	240	380
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	730	180	270	360
Total Suspended Solids Dried at 103–105°C	5	mg/L	530	920	51	13
Hardness mg equivalent CaCO3/L	1	mg/L	470	110	230	360
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	580	86	110	140
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	580	86	110	140
Alkali Metals						
Calcium	0.5	mg/L	95	22	81	130
Magnesium	0.5	mg/L	57	12	5.6	11
Potassium	0.5	mg/L	12	5.9	10	4.7
Sodium	0.5	mg/L	140	53	25	23

Client Sample ID			GASW_BH10	GASW_BH11	GASW_BH23	[R16]GASW_BH25A
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47895	S20-Oc47896	S20-Oc47897	S20-Oc47898
Date Sampled			Oct 27, 2020	Oct 27, 2020	Oct 26, 2020	Oct 27, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.001	< 0.001	< 0.001	0.002
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.002	0.012	0.016	0.052
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	0.001	0.001
Manganese (filtered)	0.005	mg/L	0.18	0.18	0.14	0.30
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.024	0.004	0.002	0.010
Zinc (filtered)	0.005	mg/L	0.016	0.060	0.19	0.097

Client Sample ID			QC01	RB01	SRT_BH059	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47899	S20-Oc47900	S20-Oc47901	S20-Oc47902
Date Sampled			Oct 27, 2020	Oct 26, 2020	Oct 26, 2020	Oct 26, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	-	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	-	< 0.05	-
TRH C15-C28	0.1	mg/L	< 0.1	-	0.2	-
TRH C29-C36	0.1	mg/L	< 0.1	-	< 0.1	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	-	0.2	-
BTEX						
Benzene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	72	-	82	137
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	-	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	-	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	-	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	-	< 0.05	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	-	< 0.05	-
TRH >C16-C34	0.1	mg/L	< 0.1	-	0.1	-
TRH >C34-C40	0.1	mg/L	< 0.1	-	< 0.1	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	-	0.1	-
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	-	-	< 0.003	-
2.4-Dichlorophenol	0.003	mg/L	-	-	< 0.003	-
2.4.5-Trichlorophenol	0.01	mg/L	-	-	< 0.01	-
2.4.6-Trichlorophenol	0.01	mg/L	-	-	< 0.01	-
2.6-Dichlorophenol	0.003	mg/L	-	-	< 0.003	-
4-Chloro-3-methylphenol	0.01	mg/L	-	-	< 0.01	-
Pentachlorophenol	0.01	mg/L	-	-	< 0.01	-
Tetrachlorophenols - Total	0.03	mg/L	-	-	< 0.03	-
Total Halogenated Phenol*	0.01	mg/L	-	-	< 0.01	-

Client Sample ID			QC01	RB01	SRT_BH059	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47899	S20-Oc47900	S20-Oc47901	S20-Oc47902
Date Sampled			Oct 27, 2020	Oct 26, 2020	Oct 26, 2020	Oct 26, 2020
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	-	-	< 0.1	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	-	-	< 0.03	-
2-Methylphenol (o-Cresol)	0.003	mg/L	-	-	< 0.003	-
2-Nitrophenol	0.01	mg/L	-	-	< 0.01	-
2.4-Dimethylphenol	0.003	mg/L	-	-	< 0.003	-
2.4-Dinitrophenol	0.03	mg/L	-	-	< 0.03	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	-	-	< 0.006	-
4-Nitrophenol	0.03	mg/L	-	-	< 0.03	-
Dinoseb	0.1	mg/L	-	-	< 0.1	-
Phenol	0.003	mg/L	-	-	< 0.003	-
Total Non-Halogenated Phenol*	0.1	mg/L	-	-	< 0.1	-
Phenol-d6 (surr.)	1	%	-	-	57	-
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	-	-	< 0.05	-
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	-	-	< 0.1	-
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	-	-	< 0.1	-
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	-	-	< 0.1	-
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	-	-	< 0.05	-
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	-	-	< 0.1	-
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	-	-	< 0.1	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	-	< 0.00001	-
Acenaphthylene	0.00001	mg/L	< 0.00001	-	< 0.00001	-
Anthracene	0.00001	mg/L	0.00004	-	< 0.00001	-
Benz(a)anthracene	0.00001	mg/L	0.00016	-	< 0.00001	-
Benzo(a)pyrene	0.00001	mg/L	0.00017	-	< 0.00001	-
Benzo(b&j)fluoranthene	0.00001	mg/L	0.00015	-	< 0.00001	-
Benzo(g.h.i)perylene	0.00001	mg/L	0.00018	-	< 0.00001	-
Benzo(k)fluoranthene	0.00001	mg/L	0.00015	-	< 0.00001	-
Chrysene	0.00001	mg/L	0.00018	-	< 0.00001	-
Dibenz(a.h)anthracene	0.00001	mg/L	0.00003	-	< 0.00001	-
Fluoranthene	0.00001	mg/L	0.00015	-	< 0.00001	-
Fluorene	0.00001	mg/L	< 0.00001	-	< 0.00001	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	0.00011	-	< 0.00001	-
Naphthalene	0.00001	mg/L	0.00003	-	< 0.00001	-
Phenanthrene	0.00001	mg/L	0.00008	-	< 0.00001	-
Pyrene	0.00001	mg/L	0.00016	-	< 0.00001	-
Total PAH*	0.00001	mg/L	0.00159	-	< 0.00001	-
2-Fluorobiphenyl (surr.)	1	%	98	-	50	-
p-Terphenyl-d14 (surr.)	1	%	91	-	79	-
Ammonia (as N)	0.01	mg/L	-	-	0.04	-
Chloride	1	mg/L	-	-	14	-
Cyanide (total)	0.004	mg/L	-	-	< 0.004	-
Ferrous Iron - Fe2+	0.5	mg/L	-	-	< 0.5	-
pH (at 25 °C)	0.1	pH Units	-	-	7.6	-
Sulphate (as SO4)	2	mg/L	-	-	44	-
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	-	-	230	-

Client Sample ID			QC01	RB01	SRT_BH059	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-Oc47899	S20-Oc47900	S20-Oc47901	S20-Oc47902
Date Sampled			Oct 27, 2020	Oct 26, 2020	Oct 26, 2020	Oct 26, 2020
Test/Reference	LOR	Unit				
Total Suspended Solids Dried at 103–105°C	5	mg/L	-	-	690	-
Hardness mg equivalent CaCO3/L	1	mg/L	-	-	390	-
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	-	-	200	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	-	-	< 10	-
Hydroxide Alkalinity (as CaCO3)	20	mg/L	-	-	< 20	-
Total Alkalinity (as CaCO3)	20	mg/L	-	-	200	-
Alkali Metals						
Calcium	0.5	mg/L	-	-	120	-
Magnesium	0.5	mg/L	-	-	20	-
Potassium	0.5	mg/L	-	-	7.9	-
Sodium	0.5	mg/L	-	-	19	-
Heavy Metals						
Arsenic	0.001	mg/L	-	< 0.001	-	-
Arsenic (filtered)	0.001	mg/L	< 0.001	-	< 0.001	-
Cadmium	0.0002	mg/L	-	< 0.0002	-	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	-	< 0.0002	-
Chromium	0.001	mg/L	-	< 0.001	-	-
Chromium (filtered)	0.001	mg/L	0.001	-	0.002	-
Copper	0.001	mg/L	-	< 0.001	-	-
Copper (filtered)	0.001	mg/L	0.009	-	0.009	-
Lead	0.001	mg/L	-	< 0.001	-	-
Lead (filtered)	0.001	mg/L	< 0.001	-	< 0.001	-
Manganese (filtered)	0.005	mg/L	-	-	< 0.005	-
Mercury	0.0001	mg/L	-	< 0.0001	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	-	< 0.0001	-
Nickel	0.001	mg/L	-	< 0.001	-	-
Nickel (filtered)	0.001	mg/L	0.022	-	< 0.001	-
Zinc	0.005	mg/L	-	< 0.005	-	-
Zinc (filtered)	0.005	mg/L	0.24	-	0.006	-

Client Sample ID			TRIP SPIKE
Sample Matrix			Water
Eurofins Sample No.			S20-Oc47903
Date Sampled			Oct 26, 2020
Test/Reference	LOR	Unit	
TRH C6-C10	1	%	92
Total Recoverable Hydrocarbons			
Naphthalene	1	%	94
TRH C6-C9	1	%	100
BTEX			
Benzene	1	%	100
Ethylbenzene	1	%	100
m&p-Xylenes	1	%	110
o-Xylene	1	%	100
Toluene	1	%	100

Client Sample ID			TRIP SPIKE
Sample Matrix			Water
Eurofins Sample No.			S20-Oc47903
Date Sampled			Oct 26, 2020
Test/Reference	LOR	Unit	
BTEX			
Xylenes - Total	1	%	100
4-Bromofluorobenzene (surr.)	1	%	142

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Oct 28, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Sydney	Oct 28, 2020	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (Halogenated)	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Sydney	Oct 28, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Nov 04, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Ammonia (as N)	Melbourne	Oct 30, 2020	28 Days
- Method: APHA 4500-NH3 Ammonia Nitrogen by FIA			
Cyanide (total)	Melbourne	Oct 30, 2020	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Ferrous Iron - Fe2+	Sydney	Oct 29, 2020	7 Days
- Method: LTM-INO-4190 Ferrous Iron in Water by Discrete Analyser			
pH (at 25 °C)	Sydney	Oct 29, 2020	1 Days
- Method: LTM-GEN-7090 pH in water by ISE			
Total Suspended Solids Dried at 103–105°C	Sydney	Oct 29, 2020	7 Days
- Method: LTM-INO-4070 Analysis of Suspended Solids in Water by Gravimetry			
Metals M8	Sydney	Nov 03, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals (filtered)	Sydney	Oct 29, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Eurofins Suite B11E: Cl/SO4/Alkalinity			
Chloride	Sydney	Oct 28, 2020	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Sulphate (as SO4)	Sydney	Oct 28, 2020	28 Days
- Method: E045 Anions by Ion Chromatography			
Alkalinity (speciated)	Melbourne	Oct 30, 2020	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Sydney	Oct 28, 2020	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			
Eurofins Suite B11D: Na/K/Ca/Mg and Hardness			
Hardness mg equivalent CaCO3/L	Sydney	Nov 03, 2020	28 Days
- Method: E020.1 Hardness in water			
Alkali Metals	Sydney	Nov 03, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: GHD Pty Ltd NSW
Address: Level 15, 133 Castlereagh Street
Sydney
NSW 2000

Project Name: CENTRAL
Project ID: 2127234

Order No.: 2127234
Report #: 753369
Phone: 02 9239 7100
Fax: 02 9239 7199

Received: Oct 28, 2020 1:00 PM
Due: Nov 4, 2020
Priority: 5 Day
Contact Name: Henry Luo

Eurofins Analytical Services Manager : Alena Bounkeua

Sample Detail						Ammonia (as N)	Cyanide (total)	Ferrous Iron - Fe2+	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X											X		X	
Sydney Laboratory - NATA Site # 18217								X	X	X	X	X	X	X	X	X	X	X	X		X
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
1	CSM_BH02	Oct 27, 2020		Water	S20-Oc47887	X	X	X	X	X	X		X	X	X		X	X		X	X
2	CSM_BH04	Oct 27, 2020		Water	S20-Oc47888	X	X	X	X	X	X		X	X	X		X	X		X	X
3	CSM_BH06	Oct 27, 2020		Water	S20-Oc47889	X	X	X	X	X	X		X	X	X		X	X		X	X
4	CSM_BH08	Oct 27, 2020		Water	S20-Oc47890	X	X	X	X	X	X		X	X	X		X	X		X	X
5	CSM_BH09S	Oct 28, 2020		Water	S20-Oc47891	X	X	X	X	X	X		X	X	X		X	X		X	X
6	CSM_BH10S	Oct 27, 2020		Water	S20-Oc47892	X	X	X	X	X	X		X	X	X		X	X		X	X
7	SRT_BH047	Oct 26, 2020		Water	S20-Oc47893	X	X	X	X	X	X		X	X	X		X	X		X	X
8	SRT_BH052	Oct 26, 2020		Water	S20-Oc47894	X	X	X	X	X	X		X	X	X		X	X		X	X
9	GASW_BH10	Oct 27, 2020		Water	S20-Oc47895	X	X	X	X	X	X		X	X	X		X	X		X	X

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: GHD Pty Ltd NSW
Address: Level 15, 133 Castlereagh Street
Sydney
NSW 2000

Project Name: CENTRAL
Project ID: 2127234

Order No.: 2127234
Report #: 753369
Phone: 02 9239 7100
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Received: Oct 28, 2020 1:00 PM
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Contact Name: Henry Luo

Eurofins Analytical Services Manager : Alena Bounkeua

Sample Detail						Ammonia (as N)	Cyanide (total)	Ferrous Iron - Fe2+	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X											X		X	
Sydney Laboratory - NATA Site # 18217								X	X	X	X	X	X	X	X	X	X	X	X		X
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
10	GASW_BH11	Oct 27, 2020		Water	S20-Oc47896	X	X	X	X	X	X		X	X	X		X	X		X	X
11	GASW_BH23	Oct 26, 2020		Water	S20-Oc47897	X	X	X	X	X	X		X	X	X		X	X		X	X
12	GASW_BH25A	Oct 27, 2020		Water	S20-Oc47898	X	X	X	X	X	X		X	X	X		X	X		X	X
13	QC01	Oct 27, 2020		Water	S20-Oc47899										X					X	
14	RB01	Oct 26, 2020		Water	S20-Oc47900							X									
15	SRT_BH059	Oct 26, 2020		Water	S20-Oc47901	X	X	X	X	X	X		X	X	X		X	X		X	X
16	TRIP BLANK	Oct 26, 2020		Water	S20-Oc47902											X					
17	TRIP SPIKE	Oct 26, 2020		Water	S20-Oc47903														X		
Test Counts						13	13	13	13	13	13	1	13	13	14	1	13	13	1	14	13

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH C15-C28 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH C29-C36 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	mg/L	< 0.00001			0.00001	Pass	
Acenaphthylene	mg/L	< 0.00001			0.00001	Pass	
Anthracene	mg/L	< 0.00001			0.00001	Pass	
Benz(a)anthracene	mg/L	< 0.00001			0.00001	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00001			0.00001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Chrysene	mg/L	< 0.00001			0.00001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00001			0.00001	Pass	
Fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Fluorene	mg/L	< 0.00001			0.00001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00001			0.00001	Pass	
Naphthalene	mg/L	< 0.00001			0.00001	Pass	
Phenanthrene	mg/L	< 0.00001			0.00001	Pass	
Pyrene	mg/L	< 0.00001			0.00001	Pass	
Total PAH*	mg/L	-			0.00001	N/A	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Chloride	mg/L	< 1			1	Pass	
Cyanide (total)	mg/L	< 0.004			0.004	Pass	
Ferrous Iron - Fe2+	mg/L	< 0.5			0.5	Pass	
Sulphate (as SO4)	mg/L	< 2			2	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	mg/L	5.0			5	Pass	
Total Suspended Solids Dried at 103–105°C	mg/L	< 5			5	Pass	
Method Blank							
Alkalinity (speciated)							
Bicarbonate Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Carbonate Alkalinity (as CaCO3)	mg/L	< 10			10	Pass	
Hydroxide Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Total Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	122			70-130	Pass	
TRH C10-C14	%	77			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	103			70-130	Pass	
Ethylbenzene	%	100			70-130	Pass	
m&p-Xylenes	%	102			70-130	Pass	
o-Xylene	%	103			70-130	Pass	
Xylenes - Total*	%	102			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	101			70-130	Pass	
Naphthalene	%	108			70-130	Pass	
TRH C6-C10	%	123			70-130	Pass	
TRH C6-C10	%	94			70-130	Pass	
TRH >C10-C16	%	81			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	99			30-130	Pass	
2.4-Dichlorophenol	%	91			30-130	Pass	
2.4.5-Trichlorophenol	%	94			30-130	Pass	
2.4.6-Trichlorophenol	%	86			30-130	Pass	
2.6-Dichlorophenol	%	87			30-130	Pass	
4-Chloro-3-methylphenol	%	109			30-130	Pass	
Pentachlorophenol	%	88			30-130	Pass	
Tetrachlorophenols - Total	%	100			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	120			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	112			30-130	Pass	
2-Methylphenol (o-Cresol)	%	96			30-130	Pass	
2-Nitrophenol	%	120			30-130	Pass	
2.4-Dimethylphenol	%	92			30-130	Pass	
2.4-Dinitrophenol	%	41			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	96			30-130	Pass	
4-Nitrophenol	%	56			30-130	Pass	
Dinoseb	%	118			30-130	Pass	
Phenol	%	54			30-130	Pass	
LCS - % Recovery							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	%	103			70-130	Pass	
LCS - % Recovery							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	%	106			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	118			70-130	Pass	
Acenaphthylene	%	96			70-130	Pass	
Anthracene	%	87			70-130	Pass	
Benz(a)anthracene	%	93			70-130	Pass	
Benzo(a)pyrene	%	102			70-130	Pass	
Benzo(b&j)fluoranthene	%	82			70-130	Pass	
Benzo(g.h.i)perylene	%	90			70-130	Pass	
Benzo(k)fluoranthene	%	102			70-130	Pass	
Chrysene	%	88			70-130	Pass	
Dibenz(a.h)anthracene	%	73			70-130	Pass	
Fluoranthene	%	98			70-130	Pass	
Fluorene	%	101			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	82			70-130	Pass	
Naphthalene	%	102			70-130	Pass	
Phenanthrene	%	88			70-130	Pass	
Pyrene	%	99			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	100			70-130	Pass	
Chloride	%	107			70-130	Pass	
Cyanide (total)	%	93			70-130	Pass	
Ferrous Iron - Fe2+	%	75			70-130	Pass	
Sulphate (as SO4)	%	108			70-130	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	%	110			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	%	86			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	102			80-120	Pass	
Magnesium	%	107			80-120	Pass	
Potassium	%	99			80-120	Pass	
Sodium	%	107			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			80-120	Pass	
Arsenic (filtered)	%	98			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Cadmium (filtered)	%	97			80-120	Pass	
Chromium	%	108			80-120	Pass	
Chromium (filtered)	%	92			80-120	Pass	
Copper	%	101			80-120	Pass	
Copper (filtered)	%	91			80-120	Pass	
Lead	%	104			80-120	Pass	
Lead (filtered)	%	96			80-120	Pass	
Manganese (filtered)	%	92			80-120	Pass	
Mercury	%	101			80-120	Pass	
Mercury (filtered)	%	96			80-120	Pass	
Nickel	%	107			80-120	Pass	
Nickel (filtered)	%	95			80-120	Pass	
Zinc	%	98			80-120	Pass	
Zinc (filtered)	%	95			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S20-Oc46442	NCP	%	96			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S20-Oc46442	NCP	%	98			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S20-Oc46002	NCP	%	75			30-130	Pass	
2.4-Dichlorophenol	S20-Oc46002	NCP	%	83			30-130	Pass	
2.4.5-Trichlorophenol	S20-Oc46002	NCP	%	94			30-130	Pass	
2.4.6-Trichlorophenol	S20-Oc46002	NCP	%	76			30-130	Pass	
2.6-Dichlorophenol	S20-Oc46002	NCP	%	89			30-130	Pass	
4-Chloro-3-methylphenol	S20-Oc46002	NCP	%	100			30-130	Pass	
Pentachlorophenol	S20-Oc46002	NCP	%	83			30-130	Pass	
Tetrachlorophenols - Total	S20-Oc46002	NCP	%	90			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Methyl-4.6-dinitrophenol	S20-Oc46002	NCP	%	128			30-130	Pass	
2-Methylphenol (o-Cresol)	S20-Oc46002	NCP	%	47			30-130	Pass	
2-Nitrophenol	S20-Oc46002	NCP	%	103			30-130	Pass	
2.4-Dimethylphenol	S20-Oc46002	NCP	%	88			30-130	Pass	
2.4-Dinitrophenol	S20-Oc46002	NCP	%	119			70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S20-Oc46002	NCP	%	52			30-130	Pass	
Dinoseb	S20-Oc46002	NCP	%	115			30-130	Pass	
Spike - % Recovery									
				Result 1					
Ferrous Iron - Fe2+	S20-Oc48266	NCP	%	114			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	S20-No03373	NCP	%	90			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S20-Oc47890	CP	%	84			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S20-Oc47890	CP	%	123			70-130	Pass	
Toluene	S20-Oc47890	CP	%	122			70-130	Pass	
Ethylbenzene	S20-Oc47890	CP	%	117			70-130	Pass	
m&p-Xylenes	S20-Oc47890	CP	%	115			70-130	Pass	
o-Xylene	S20-Oc47890	CP	%	122			70-130	Pass	
Xylenes - Total*	S20-Oc47890	CP	%	117			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S20-Oc47890	CP	%	116			70-130	Pass	
TRH C6-C10	S20-Oc47890	CP	%	83			70-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	S20-Oc47890	CP	%	100			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S20-Oc47892	CP	%	100			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S20-Oc47898	CP	%	95			75-125	Pass	
Magnesium	S20-Oc47898	CP	%	102			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Potassium	S20-Oc47898	CP	%	99			75-125	Pass	
Sodium	S20-Oc47898	CP	%	110			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Oc47898	CP	%	98			75-125	Pass	
Cadmium	S20-Oc47898	CP	%	99			75-125	Pass	
Chromium	S20-Oc47898	CP	%	102			75-125	Pass	
Copper	S20-Oc47898	CP	%	96			75-125	Pass	
Lead	S20-Oc47898	CP	%	99			75-125	Pass	
Mercury	S20-Oc47898	CP	%	108			75-125	Pass	
Nickel	S20-Oc47898	CP	%	100			75-125	Pass	
Zinc	S20-Oc47898	CP	%	93			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-Oc45977	NCP	%	94			75-125	Pass	
Cadmium	S20-Oc45977	NCP	%	94			75-125	Pass	
Chromium	S20-Oc45977	NCP	%	101			75-125	Pass	
Copper	S20-Oc45977	NCP	%	98			75-125	Pass	
Lead	S20-Oc45977	NCP	%	100			75-125	Pass	
Mercury	S20-Oc45977	NCP	%	115			75-125	Pass	
Nickel	S20-Oc45977	NCP	%	101			75-125	Pass	
Zinc	S20-Oc45977	NCP	%	94			75-125	Pass	
Spike - % Recovery									
				Result 1					
Chloride	S20-Oc47901	CP	%	130			70-130	Pass	
Cyanide (total)	S20-Oc47901	CP	%	101			70-130	Pass	
Sulphate (as SO4)	S20-Oc47901	CP	%	121			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S20-Oc47901	CP	%	99			75-125	Pass	
Cadmium (filtered)	S20-Oc47901	CP	%	97			75-125	Pass	
Chromium (filtered)	S20-Oc47901	CP	%	90			75-125	Pass	
Copper (filtered)	S20-Oc47901	CP	%	88			75-125	Pass	
Lead (filtered)	S20-Oc47901	CP	%	94			75-125	Pass	
Manganese (filtered)	S20-Oc47901	CP	%	90			75-125	Pass	
Mercury (filtered)	S20-Oc47901	CP	%	95			75-125	Pass	
Nickel (filtered)	S20-Oc47901	CP	%	93			75-125	Pass	
Zinc (filtered)	S20-Oc47901	CP	%	94			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S20-Oc48159	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S20-Oc48159	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S20-Oc48159	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S20-Oc48159	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S20-Oc48159	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S20-Oc48159	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S20-Oc46001	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dichlorophenol	S20-Oc46001	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4.5-Trichlorophenol	S20-Oc46001	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	S20-Oc46001	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	S20-Oc46001	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
4-Chloro-3-methylphenol	S20-Oc46001	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Pentachlorophenol	S20-Oc46001	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Tetrachlorophenols - Total	S20-Oc46001	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S20-Oc46001	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S20-Oc46001	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S20-Oc46001	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Nitrophenol	S20-Oc46001	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dimethylphenol	S20-Oc46001	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	S20-Oc46001	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S20-Oc46001	NCP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
4-Nitrophenol	S20-Oc46001	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Dinoseb	S20-Oc46001	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Phenol	S20-Oc46001	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Naphthalene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Phenanthrene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	S20-Oc48266	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S20-Oc47887	CP	mg/L	110	120	6.0	30%	Pass	
Sulphate (as SO4)	S20-Oc47887	CP	mg/L	46	50	9.0	30%	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	S20-No03493	NCP	mg/L	1700	1700	1.0	30%	Pass	
Total Suspended Solids Dried at 103–105°C	S20-No03373	NCP	mg/L	< 5	< 5	<1	30%	Pass	
Duplicate									
Alkalinity (speciated)				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	B20-Oc48733	NCP	mg/L	36	36	<1	30%	Pass	
Carbonate Alkalinity (as CaCO3)	B20-Oc48733	NCP	mg/L	< 10	< 10	<1	30%	Pass	
Hydroxide Alkalinity (as CaCO3)	B20-Oc48733	NCP	mg/L	< 20	< 20	<1	30%	Pass	
Total Alkalinity (as CaCO3)	B20-Oc48733	NCP	mg/L	36	36	<1	30%	Pass	

Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S20-Oc47887	CP	mg/L	41	40	1.0	30%	Pass	
Magnesium	S20-Oc47887	CP	mg/L	32	31	2.0	30%	Pass	
Potassium	S20-Oc47887	CP	mg/L	7.1	7.0	1.0	30%	Pass	
Sodium	S20-Oc47887	CP	mg/L	86	85	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Oc47887	CP	mg/L	0.016	0.015	5.0	30%	Pass	
Arsenic (filtered)	S20-Oc47887	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S20-Oc47887	CP	mg/L	0.0003	0.0002	16	30%	Pass	
Cadmium (filtered)	S20-Oc47887	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S20-Oc47887	CP	mg/L	0.083	0.080	5.0	30%	Pass	
Chromium (filtered)	S20-Oc47887	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S20-Oc47887	CP	mg/L	0.054	0.053	2.0	30%	Pass	
Copper (filtered)	S20-Oc47887	CP	mg/L	0.005	0.005	6.0	30%	Pass	
Lead	S20-Oc47887	CP	mg/L	0.088	0.087	1.0	30%	Pass	
Lead (filtered)	S20-Oc47887	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	S20-Oc47887	CP	mg/L	0.040	0.041	2.0	30%	Pass	
Mercury	S20-Oc47887	CP	mg/L	0.0002	0.0002	8.0	30%	Pass	
Mercury (filtered)	S20-Oc47887	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S20-Oc47887	CP	mg/L	0.038	0.036	6.0	30%	Pass	
Nickel (filtered)	S20-Oc47887	CP	mg/L	0.007	0.007	<1	30%	Pass	
Zinc	S20-Oc47887	CP	mg/L	0.20	0.19	3.0	30%	Pass	
Zinc (filtered)	S20-Oc47887	CP	mg/L	0.024	0.024	1.0	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S20-Oc47888	CP	mg/L	14	14	1.0	30%	Pass	
Magnesium	S20-Oc47888	CP	mg/L	21	21	3.0	30%	Pass	
Potassium	S20-Oc47888	CP	mg/L	6.6	6.5	2.0	30%	Pass	
Sodium	S20-Oc47888	CP	mg/L	69	68	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Oc47888	CP	mg/L	0.008	0.009	5.0	30%	Pass	
Cadmium	S20-Oc47888	CP	mg/L	0.0003	0.0002	22	30%	Pass	
Chromium	S20-Oc47888	CP	mg/L	0.066	0.065	2.0	30%	Pass	
Copper	S20-Oc47888	CP	mg/L	0.078	0.077	2.0	30%	Pass	
Lead	S20-Oc47888	CP	mg/L	0.031	0.030	3.0	30%	Pass	
Mercury	S20-Oc47888	CP	mg/L	0.0002	0.0002	10	30%	Pass	
Nickel	S20-Oc47888	CP	mg/L	0.10	0.10	2.0	30%	Pass	
Zinc	S20-Oc47888	CP	mg/L	0.26	0.26	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-Oc47889	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-Oc47889	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S20-Oc47889	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S20-Oc47889	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S20-Oc47889	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S20-Oc47889	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S20-Oc47889	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-Oc47889	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S20-Oc47889	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
Ferrous Iron - Fe2+	S20-Oc47889	CP	mg/L	6.2	6.2	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	S20-Oc47890	CP	mg/L	< 0.004	< 0.004	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S20-Oc47892	CP	mg/L	0.02	0.03	25	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180°C ± 2°C	S20-Oc47895	CP	mg/L	730	750	3.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-Oc45969	NCP	mg/L	0.059	0.048	22	30%	Pass	
Cadmium	S20-Oc45969	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S20-Oc45969	NCP	mg/L	0.007	0.007	4.0	30%	Pass	
Copper	S20-Oc45969	NCP	mg/L	0.019	0.014	32	30%	Fail	Q15
Lead	S20-Oc45969	NCP	mg/L	0.009	0.008	14	30%	Pass	
Mercury	S20-Oc45969	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S20-Oc45969	NCP	mg/L	0.002	0.002	1.0	30%	Pass	
Zinc	S20-Oc45969	NCP	mg/L	0.058	0.042	33	30%	Fail	Q15
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S20-Oc47901	CP	mg/L	14	13	8.0	30%	Pass	
Cyanide (total)	S20-Oc47901	CP	mg/L	< 0.004	< 0.004	<1	30%	Pass	
Sulphate (as SO4)	S20-Oc47901	CP	mg/L	44	38	13	30%	Pass	

Comments

This report has been revised (V3) to report repeat TRH results for selected samples.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.
R16	The LORs have been raised due to the high concentration of one or more analytes

Authorised By

Alena Bounkeua	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Gabriele Cordero	Senior Analyst-Inorganic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)

Glenn Jackson

General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

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

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☑ Sydney
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ Brisbane
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ Melbourne
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	Contact Name : Terry Nham	Purchase Order : 2127234	COC Number :
Office Address :	Project Manager : Henry Luo	PROJECT Number : 21-27234	Eurofins | mgt quote ID : GHD Rates 2020/2021
Level 15, 133 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	PROJECT Name : Central	Data output format: ESDAT

Special Directions & Comments :

DI water batch number:

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations + Hardness		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)					
1	CSM_BH02		Water	X	X	X		X	X	X	X		X	X	X	X	X							
2	CSM_BH04		Water	X	X	X		X	X	X	X		X	X	X	X	X							
3	CSM_BH06		Water	X	X	X		X	X	X	X		X	X	X	X	X							
4	CSM_BH08		Water	X	X	X		X	X	X	X		X	X	X	X	X							
5	CSM_BH09S		Water	X	X	X		X	X	X	X		X	X	X	X	X							
6	CSM_BH10S		Water	X	X	X		X	X	X	X		X	X	X	X	X							
7	SRT_BH047		Water	X	X	X		X	X	X	X		X	X	X	X	X							
8	SRT_BH050		Water	X	X	X		X	[illegible]	X	X		X	X	X	X	X							
9	SRT_BH052		Water	X	X	X		X	X	X	X		X	X	X	X	X							
10	GASW_BH7		Water	X	X	X		X	X	X	X		X	X	X	X	X							
11	GASW_BH10		Water	X	X	X		X	X	X	X		X	X	X	X	X							
12	GASW_BH11		Water	X	X	X		X	X	X	X		X	X	X	X	X							
13	GASW_BH23		Water	X	X	X		X	X	X	X		X	X	X	X	X							
14	GASW_BH25A		Water	X	X	X		X	X	X	X		X	X	X	X	X							
15	QC01		Water	PLEASE SEND TO ALS WITH ATTACHED COC																				
16	QC02		Water	X	X																			

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28
Microbiological testing	24 hours	Microbiological testing	72
BOD, Nitrate, Nitrite, Total N	2 days	Anions	2
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	2
Ferrous iron	7 days	ASLP, TCLP	7

Containers:

500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	Sample com:
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		3		2	1			limited sample
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			

Laboratory Staff		Turn around time	Method Of Shipment	Temperature on arrival:
Relinquished By:	Received By: Kathy N	1 DAY ☐ 2 DAY ☐ 3 DAY ☐	☐ Courier	14.0
Date & Time :	Date & Time : 20/11	5 DAY ☑ 10 DAY ☐ Other:	☑ Hand Delivered	Report number:
Signature:	Signature:		☐ Postal	
			Courier Consignment # :	

758435

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	Contact Name : Terry Nham	Purchase Order : 2127234	COC Number :
Office Address :	Project Manager : Henry Luo	PROJECT Number : 21-27234	Eurofins | mgt quote ID : GHD Rates 2020/2021
Level 15, 133 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	PROJECT Name : Central	Data output format: ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number:

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations + Hardness		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)				
1	RB01		Water																	X				
2	Trip Blank		Water																X					
3	Trip Spike		Water																X					
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	Sample comments:
		1						
				2				
				2				

Relinquished By:	Laboratory Staff	Turn around time	Method Of Shipment	Temperature on arrival:
Date & Time :	Received By: Kathy N Date & Time : 20/11	1 DAY ☐ 2 DAY ☐ 3 DAY ☐ 5 DAY ☑ 10 DAY ☐ Other:	☐ Courier ☑ Hand Delivered ☐ Postal Courier Consignment # :	Report number:
Signature:	Signature:			

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	GHD Pty Ltd NSW
Contact name:	Carmen Yi
Project name:	CENTRAL
Project ID:	21-27234
Turnaround time:	5 Day
Date/Time received	Nov 20, 2020 3:20 PM
Eurofins reference	758435

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 14 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✓	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Sample QC01 forwarded to ALS. No unpreserved 500ml received for sample SRT_BH050, applicable analysis cancelled. Sample GASW_BH7 not received, analysis cancelled. No nutrients bottle received for CSM_BH08, no metals bottle received for CSM_BH10S, no cyanide bottle received for GASW_BH23, subbed from unpreserved bottle. Extra unlabeled amber, cyanide and metals bottles received, placed on hold.

Contact

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

Alena Bounkeua on phone : or by email: AlenaBounkeua@eurofins.com

Results will be delivered electronically via email to Carmen Yi - carmen.yi@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Henry Luo**

Report **758435-W**
Project name CENTRAL
Project ID 21-27234
Received Date Nov 20, 2020

Client Sample ID			**CSM_BH02**	**CSM_BH04**	**CSM_BH06**	**CSM_BH08**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S20-No37782**	**S20-No37783**	**S20-No37784**	**S20-No37785**
Date Sampled			**Nov 19, 2020**	**Nov 19, 2020**	**Nov 19, 2020**	**Nov 19, 2020**
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	101	95	96	134
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37782	S20-No37783	S20-No37784	S20-No37785
Date Sampled			Nov 19, 2020	Nov 19, 2020	Nov 19, 2020	Nov 19, 2020
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	37	39	32	28
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	66	87	61	83
p-Terphenyl-d14 (surr.)	1	%	104	98	76	100
Ammonia (as N)	0.01	mg/L	< 0.01	< 0.01	0.02	0.01
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	260	90	96	110
Chloride	1	mg/L	120	84	270	95
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	7.4	9.6	4.5
Nitrate (as N)	0.02	mg/L	0.08	< 0.02	< 0.02	0.04
pH (at 25 °C)	0.1	pH Units	7.8	6.8	6.6	6.6

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37782	S20-No37783	S20-No37784	S20-No37785
Date Sampled			Nov 19, 2020	Nov 19, 2020	Nov 19, 2020	Nov 19, 2020
Test/Reference	LOR	Unit				
Sulphate (as SO4)	5	mg/L	31	25	25	32
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	490	250	470	260
Total Suspended Solids Dried at 103–105°C	1	mg/L	1000	250	230	75
Alkalinity (speciated)						
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Alkali Metals						
Calcium	0.5	mg/L	28	11	19	10
Magnesium	0.5	mg/L	28	15	27	14
Potassium	0.5	mg/L	11	< 5	5.8	< 5
Sodium	0.5	mg/L	98	69	110	82
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.001	0.001	0.002	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.003	0.003	0.002	0.006
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.044	0.33	0.44	0.28
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.004	0.010	0.007	0.018
Zinc (filtered)	0.005	mg/L	0.022	0.097	0.078	0.054
Hardness Set						
Hardness mg equivalent CaCO3/L	5	mg/L	180	91	160	84

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH050
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37786	S20-No37787	S20-No37788	S20-No37789
Date Sampled			Nov 20, 2020	Nov 18, 2020	Nov 18, 2020	Nov 18, 2020
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	89	95	85	88
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	0.1	< 0.1	< 0.1	< 0.1
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH050
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37786	S20-No37787	S20-No37788	S20-No37789
Date Sampled			Nov 20, 2020	Nov 18, 2020	Nov 18, 2020	Nov 18, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	0.05	mg/L	0.07	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	0.2	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	0.27	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	31	35	38	48
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH050
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37786	S20-No37787	S20-No37788	S20-No37789
Date Sampled			Nov 20, 2020	Nov 18, 2020	Nov 18, 2020	Nov 18, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	74	56	57	69
p-Terphenyl-d14 (surr.)	1	%	54	59	51	83
Ammonia (as N)	0.01	mg/L	0.02	< 0.01	< 0.01	-
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	56	28	80	-
Chloride	1	mg/L	55	51	57	-
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	-
Ferrous Iron - Fe2+	0.5	mg/L	5.3	< 0.5	< 0.5	< 0.5
Nitrate (as N)	0.02	mg/L	< 0.02	1.9	19	-
pH (at 25 °C)	0.1	pH Units	6.4	6.2	6.9	-
Sulphate (as SO4)	5	mg/L	120	41	15	-
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	370	160	260	-
Total Suspended Solids Dried at 103–105°C	1	mg/L	41	710	48	-
Alkalinity (speciated)						
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	-
Alkali Metals						
Calcium	0.5	mg/L	< 5	6.0	27	-
Magnesium	0.5	mg/L	8.5	9.0	12	-
Potassium	0.5	mg/L	< 5	11	< 5	-
Sodium	0.5	mg/L	110	37	28	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.001	0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	0.003	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.012	0.004	0.003	0.11
Lead (filtered)	0.001	mg/L	< 0.001	0.004	< 0.001	0.018
Manganese (filtered)	0.005	mg/L	1.1	0.57	0.53	0.026
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.009	0.002	0.002	0.010
Zinc (filtered)	0.005	mg/L	0.049	0.006	< 0.005	0.15
Hardness Set						
Hardness mg equivalent CaCO3/L	5	mg/L	47	52	120	-

Client Sample ID			SRT_BH052	GASW_BH10	GASW_BH11	GASW_BH23
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37790	S20-No37792	S20-No37793	S20-No37794
Date Sampled			Nov 18, 2020	Nov 19, 2020	Nov 20, 2020	Nov 18, 2020
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	5.5
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.031
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.049
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	0.024
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.013
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	0.037
4-Bromofluorobenzene (surr.)	1	%	86	95	96	102
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	8.9
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	3.3
TRH >C10-C16	0.05	mg/L	< 0.05	0.05	0.22	0.17
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	0.05	0.22	0.17
TRH >C16-C34	0.1	mg/L	< 0.1	0.2	0.3	0.3
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	0.25	0.52	0.47
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	8.3
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	0.05	mg/L	< 0.05	0.07	0.13	0.18
TRH C15-C28	0.1	mg/L	< 0.1	0.2	0.4	0.4
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	0.27	0.53	0.58
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	35	39	51	47
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SRT_BH052	GASW_BH10	GASW_BH11	GASW_BH23
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37790	S20-No37792	S20-No37793	S20-No37794
Date Sampled			Nov 18, 2020	Nov 19, 2020	Nov 20, 2020	Nov 18, 2020
Test/Reference	LOR	Unit				
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.0012
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00010
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00030
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00040
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.0013
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.0035
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00070
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00041
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	0.00791
2-Fluorobiphenyl (surr.)	1	%	79	75	95	74
p-Terphenyl-d14 (surr.)	1	%	70	88	58	61
Ammonia (as N)	0.01	mg/L	< 0.01	< 0.01	0.03	0.06
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	56	540	81	480
Chloride	1	mg/L	80	170	76	24
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	0.010
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	6.9	1.3	9.1
Nitrate (as N)	0.02	mg/L	8.0	< 0.02	0.04	< 0.02
pH (at 25 °C)	0.1	pH Units	6.7	7.7	7.1	7.8
Sulphate (as SO4)	5	mg/L	30	< 5	34	69
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	210	820	190	610
Total Suspended Solids Dried at 103–105°C	1	mg/L	260	200	790	88
Alkalinity (speciated)						
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Alkali Metals						
Calcium	0.5	mg/L	18	73	18	140
Magnesium	0.5	mg/L	5.1	49	10	11
Potassium	0.5	mg/L	< 5	12	9.6	20
Sodium	0.5	mg/L	48	140	47	36
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.001	0.001	0.001	0.005
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.005	0.002	0.016	0.004
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	< 0.005	0.17	0.19	0.32

Client Sample ID			SRT_BH052	GASW_BH10	GASW_BH11	GASW_BH23
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37790	S20-No37792	S20-No37793	S20-No37794
Date Sampled			Nov 18, 2020	Nov 19, 2020	Nov 20, 2020	Nov 18, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	0.036	0.004	0.002
Zinc (filtered)	0.005	mg/L	0.018	0.035	0.053	< 0.005
Hardness Set						
Hardness mg equivalent CaCO3/L	5	mg/L	65	380	88	380

Client Sample ID			GASW_BH25A	QC02	RB01	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37795	S20-No37796	S20-No37797	S20-No37798
Date Sampled			Nov 20, 2020	Nov 19, 2020	Nov 19, 2020	Nov 19, 2020
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	3.2	< 0.001	-	-
Toluene	0.001	mg/L	2.1	< 0.001	-	-
Ethylbenzene	0.001	mg/L	0.17	< 0.001	-	-
m&p-Xylenes	0.002	mg/L	0.41	< 0.002	-	-
o-Xylene	0.001	mg/L	0.20	< 0.001	-	-
Xylenes - Total*	0.003	mg/L	0.61	< 0.003	-	-
4-Bromofluorobenzene (surr.)	1	%	106	92	-	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.5	< 0.01	-	-
TRH C6-C10	0.02	mg/L	7.1	< 0.02	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	1.0	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	0.96	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	0.96	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	0.6	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	1.56	< 0.1	-	-
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	6.3	< 0.02	-	-
Naphthalene	1	%	-	-	-	99
TRH C6-C9	1	%	-	-	-	73
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C10-C14	0.05	mg/L	1.0	< 0.05	-	-
TRH C15-C28	0.1	mg/L	0.7	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	1.7	< 0.1	-	-
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	-	-	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	-	-	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	-	-	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	-	-	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	-	-	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	-	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	-	-	-
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	-	-	-
Total Halogenated Phenol*	0.01	mg/L	< 0.01	-	-	-

Client Sample ID			GASW_BH25A	QC02	RB01	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37795	S20-No37796	S20-No37797	S20-No37798
Date Sampled			Nov 20, 2020	Nov 19, 2020	Nov 19, 2020	Nov 19, 2020
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	-	-	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	-	-	-
2-Methylphenol (o-Cresol)	0.003	mg/L	0.045	-	-	-
2-Nitrophenol	0.01	mg/L	< 0.01	-	-	-
2.4-Dimethylphenol	0.003	mg/L	0.034	-	-	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	-	-	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	0.036	-	-	-
4-Nitrophenol	0.03	mg/L	< 0.03	-	-	-
Dinoseb	0.1	mg/L	< 0.1	-	-	-
Phenol	0.003	mg/L	0.046	-	-	-
Total Non-Halogenated Phenol*	0.1	mg/L	0.161	-	-	-
Phenol-d6 (surr.)	1	%	83	-	-	-
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	0.57	-	-	-
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	0.1	-	-	-
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	0.87	-	-	-
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	0.67	-	-	-
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	0.2	-	-	-
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	0.00011	< 0.00001	-	-
Acenaphthylene	0.00001	mg/L	0.00007	< 0.00001	-	-
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Fluoranthene	0.00001	mg/L	0.00012	< 0.00001	-	-
Fluorene	0.00001	mg/L	0.00014	< 0.00001	-	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Naphthalene	0.00001	mg/L	0.00030	< 0.00001	-	-
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Pyrene	0.00001	mg/L	0.00018	< 0.00001	-	-
Total PAH*	0.00001	mg/L	0.00092	< 0.00001	-	-
2-Fluorobiphenyl (surr.)	1	%	58	75	-	-
p-Terphenyl-d14 (surr.)	1	%	92	77	-	-
Ammonia (as N)	0.01	mg/L	< 0.01	-	-	-
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	210	-	-	-
Chloride	1	mg/L	62	-	-	-
Cyanide (total)	0.004	mg/L	0.031	-	-	-
Ferrous Iron - Fe2+	0.5	mg/L	3.4	-	-	-
Nitrate (as N)	0.02	mg/L	< 0.02	-	-	-
pH (at 25 °C)	0.1	pH Units	7.4	-	-	-

Client Sample ID			GASW_BH25A	QC02	RB01	TRIP SPIKE
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-No37795	S20-No37796	S20-No37797	S20-No37798
Date Sampled			Nov 20, 2020	Nov 19, 2020	Nov 19, 2020	Nov 19, 2020
Test/Reference	LOR	Unit				
Sulphate (as SO4)	5	mg/L	110	-	-	-
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	390	-	-	-
Total Suspended Solids Dried at 103–105°C	1	mg/L	1900	-	-	-
TRH C6-C10	1	%	-	-	-	75
Alkalinity (speciated)						
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	-	-	-
Alkali Metals						
Calcium	0.5	mg/L	140	-	-	-
Magnesium	0.5	mg/L	11	-	-	-
Potassium	0.5	mg/L	9.8	-	-	-
Sodium	0.5	mg/L	21	-	-	-
Heavy Metals						
Arsenic	0.001	mg/L	-	-	< 0.001	-
Arsenic (filtered)	0.001	mg/L	0.008	< 0.001	-	-
Cadmium	0.0002	mg/L	-	-	< 0.0002	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	-	-
Chromium	0.001	mg/L	-	-	< 0.001	-
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Copper	0.001	mg/L	-	-	< 0.001	-
Copper (filtered)	0.001	mg/L	0.007	0.003	-	-
Lead	0.001	mg/L	-	-	< 0.001	-
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Manganese (filtered)	0.005	mg/L	0.24	-	-	-
Mercury	0.0001	mg/L	-	-	< 0.0001	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Nickel	0.001	mg/L	-	-	< 0.001	-
Nickel (filtered)	0.001	mg/L	< 0.001	0.010	-	-
Zinc	0.005	mg/L	-	-	< 0.005	-
Zinc (filtered)	0.005	mg/L	< 0.005	0.053	-	-
Hardness Set						
Hardness mg equivalent CaCO3/L	5	mg/L	400	-	-	-
BTEX						
Benzene	1	%	-	-	-	100
Ethylbenzene	1	%	-	-	-	93
m&p-Xylenes	1	%	-	-	-	99
o-Xylene	1	%	-	-	-	89
Toluene	1	%	-	-	-	97
Xylenes - Total	1	%	-	-	-	93
4-Bromofluorobenzene (surr.)	1	%	-	-	-	121

Client Sample ID			TRIP BLANK	SRT_BH059
Sample Matrix			Water	Water
Eurofins Sample No.			S20-No37799	S20-No37800
Date Sampled			Nov 19, 2020	Nov 18, 2020
Test/Reference	LOR	Unit		
BTEX				
Benzene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	93	86
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	-	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	-	< 0.05
TRH >C16-C34	0.1	mg/L	-	0.2
TRH >C34-C40	0.1	mg/L	-	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	-	0.2
Total Recoverable Hydrocarbons				
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C10-C14	0.05	mg/L	-	0.05
TRH C15-C28	0.1	mg/L	-	0.2
TRH C29-C36	0.1	mg/L	-	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	-	0.25
Phenols (Halogenated)				
2-Chlorophenol	0.003	mg/L	-	< 0.003
2.4-Dichlorophenol	0.003	mg/L	-	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	-	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	-	< 0.01
2.6-Dichlorophenol	0.003	mg/L	-	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	-	< 0.01
Pentachlorophenol	0.01	mg/L	-	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	-	< 0.03
Total Halogenated Phenol*	0.01	mg/L	-	< 0.01
Phenols (non-Halogenated)				
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	-	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	-	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	-	< 0.003
2-Nitrophenol	0.01	mg/L	-	< 0.01
2.4-Dimethylphenol	0.003	mg/L	-	< 0.003
2.4-Dinitrophenol	0.03	mg/L	-	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	-	< 0.006
4-Nitrophenol	0.03	mg/L	-	< 0.03
Dinoseb	0.1	mg/L	-	< 0.1
Phenol	0.003	mg/L	-	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	-	< 0.1
Phenol-d6 (surr.)	1	%	-	37
TRH - 2013 NEPM Fractions (after silica gel clean-up)				
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	-	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	-	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	-	< 0.1

Client Sample ID			TRIP BLANK	SRT_BH059
Sample Matrix			Water	Water
Eurofins Sample No.			S20-No37799	S20-No37800
Date Sampled			Nov 19, 2020	Nov 18, 2020
Test/Reference	LOR	Unit		
TRH - 1999 NEPM Fractions (after silica gel clean-up)				
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	-	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	-	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	-	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	-	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)				
Acenaphthene	0.00001	mg/L	-	< 0.00001
Acenaphthylene	0.00001	mg/L	-	< 0.00001
Anthracene	0.00001	mg/L	-	< 0.00001
Benz(a)anthracene	0.00001	mg/L	-	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	-	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	-	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	-	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	-	< 0.00001
Chrysene	0.00001	mg/L	-	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	-	< 0.00001
Fluoranthene	0.00001	mg/L	-	< 0.00001
Fluorene	0.00001	mg/L	-	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	-	< 0.00001
Naphthalene	0.00001	mg/L	-	< 0.00001
Phenanthrene	0.00001	mg/L	-	< 0.00001
Pyrene	0.00001	mg/L	-	< 0.00001
Total PAH*	0.00001	mg/L	-	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	-	75
p-Terphenyl-d14 (surr.)	1	%	-	84
Ammonia (as N)	0.01	mg/L	-	< 0.01
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	-	150
Chloride	1	mg/L	-	44
Cyanide (total)	0.004	mg/L	-	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	-	< 0.5
Nitrate (as N)	0.02	mg/L	-	1.8
pH (at 25 °C)	0.1	pH Units	-	7.9
Sulphate (as SO4)	5	mg/L	-	27
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	-	240
Total Suspended Solids Dried at 103–105°C	1	mg/L	-	220
Alkalinity (speciated)				
Carbonate Alkalinity (as CaCO3)	10	mg/L	-	< 10
Alkali Metals				
Calcium	0.5	mg/L	-	51
Magnesium	0.5	mg/L	-	8.0
Potassium	0.5	mg/L	-	6.7
Sodium	0.5	mg/L	-	18
Heavy Metals				
Arsenic (filtered)	0.001	mg/L	-	0.001
Cadmium (filtered)	0.0002	mg/L	-	< 0.0002
Chromium (filtered)	0.001	mg/L	-	0.002
Copper (filtered)	0.001	mg/L	-	0.014
Lead (filtered)	0.001	mg/L	-	< 0.001
Manganese (filtered)	0.005	mg/L	-	< 0.005

Client Sample ID			TRIP BLANK	SRT_BH059
Sample Matrix			Water	Water
Eurofins Sample No.			S20-No37799	S20-No37800
Date Sampled			Nov 19, 2020	Nov 18, 2020
Test/Reference	LOR	Unit		
Heavy Metals				
Mercury (filtered)	0.0001	mg/L	-	< 0.0001
Nickel (filtered)	0.001	mg/L	-	0.006
Zinc (filtered)	0.005	mg/L	-	0.011
Hardness Set				
Hardness mg equivalent CaCO3/L	5	mg/L	-	160

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
BTEX	Sydney	Nov 23, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 23, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Nov 22, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 27, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 27, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Sydney	Nov 23, 2020	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (Halogenated)	Sydney	Nov 27, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Nov 27, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Sydney	Nov 27, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Sydney	Nov 27, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
- Method: TRH C6-C36 (Silica Gel Cleanup) - MGT 100A			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Nov 24, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Cyanide (total)	Sydney	Nov 23, 2020	14 Days
- Method: E054 Total Cyanide			
Ferrous Iron - Fe2+	Sydney	Nov 23, 2020	7 Days
- Method: LTM-INO-4190 Ferrous Iron in Water by Discrete Analyser			
pH (at 25 °C)	Melbourne	Nov 24, 2020	0 Hours
- Method: LTM-GEN-7090 pH in water by ISE			
Total Suspended Solids Dried at 103–105°C	Melbourne	Nov 24, 2020	7 Days
- Method: LTM-INO-4070 Analysis of Suspended Solids in Water by Gravimetry			
Hardness Set			
Calcium	Melbourne	Nov 24, 2020	180 Days
- Method:			
Magnesium	Melbourne	Nov 24, 2020	180 Days
- Method:			
Metals M8	Sydney	Nov 22, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals (filtered)	Sydney	Nov 23, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Hardness mg equivalent CaCO3/L	Melbourne	Nov 24, 2020	28 Days
- Method:			
Major Cations			
Ammonia (as N)	Melbourne	Nov 24, 2020	28 Days
- Method: APHA 4500-NH3 Ammonia Nitrogen by FIA			
Alkali Metals	Melbourne	Nov 24, 2020	180 Days
- Method: LTM-MET-3010 Alkali Metals Sulfur Silicon Phosphorus by ICP-AES			
Major Anions			
Bicarbonate Alkalinity (as CaCO3)	Melbourne	Nov 24, 2020	14 Days

Description	Testing Site	Extracted	Holding Time
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Chloride	Melbourne	Nov 24, 2020	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Nitrate (as N)	Melbourne	Nov 24, 2020	28 Days
- Method: LTM-INO-4120 Analysis of NOx NO2 NH3 by FIA			
Sulphate (as SO4)	Melbourne	Nov 24, 2020	28 Days
- Method: LTM-INO-4110 Sulfate by Discrete Analyser			
Alkalinity (speciated)	Melbourne	Nov 24, 2020	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Melbourne	Nov 24, 2020	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name:	GHD Pty Ltd NSW	**Order No.:**	2127234
Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	**Report #:**	758435
		Phone:	02 9239 7100
		Fax:	02 9239 7199
Project Name:	CENTRAL		
Project ID:	21-27234		

Received:	Nov 20, 2020 3:20 PM
Due:	Nov 27, 2020
Priority:	5 Day
Contact Name:	Henry Luo

Eurofins Analytical Services Manager : Alena Bounkeua

Sample Detail						CANCELLED	Cyanide (total)	Ferrous Iron - Fe2+	HOLD	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	Phenols (IWRG 621)	Major Anions	Hardness Set	Major Cations	TRH (after Silica Gel cleanup)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271											X	X		X	X	X	X	X	X	X	X	X			X	X
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X			X	X	X				X	X	X	X	X	X		
Brisbane Laboratory - NATA Site # 20794																										
Perth Laboratory - NATA Site # 23736																										
Mayfield Laboratory																										
External Laboratory																										
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																					
1	CSM_BH02	Nov 19, 2020		Water	S20-No37782		X	X		X	X	X			X	X	X	X		X		X			X	X
2	CSM_BH04	Nov 19, 2020		Water	S20-No37783		X	X		X	X	X			X	X	X	X		X		X			X	X
3	CSM_BH06	Nov 19, 2020		Water	S20-No37784		X	X		X	X	X			X	X	X	X		X		X			X	X
4	CSM_BH08	Nov 19, 2020		Water	S20-No37785		X	X		X	X	X			X	X	X	X		X		X			X	X
5	CSM_BH09S	Nov 20, 2020		Water	S20-No37786		X	X		X	X	X			X	X	X	X		X		X			X	X
6	CSM_BH10S	Nov 18, 2020		Water	S20-No37787		X	X		X	X	X			X	X	X	X		X		X			X	X
7	SRT_BH047	Nov 18, 2020		Water	S20-No37788		X	X		X	X	X			X	X	X	X		X		X			X	X
8	SRT_BH050	Nov 18, 2020		Water	S20-No37789			X		X				X					X		X				X	
9	SRT_BH052	Nov 18, 2020		Water	S20-No37790		X	X		X	X	X			X	X	X	X		X		X			X	X

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
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Received: Nov 20, 2020 3:20 PM
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Melbourne Laboratory - NATA Site # 1254 & 14271											X	X		X	X	X	X	X	X	X	X	X			X	X
Sydney Laboratory - NATA Site # 18217						X	X	X	X	X			X	X	X				X	X	X	X	X	X		
Brisbane Laboratory - NATA Site # 20794																										
Perth Laboratory - NATA Site # 23736																										
Mayfield Laboratory																										
External Laboratory																										
10	GASW_BH7	Nov 19, 2020		Water	S20-No37791	X																				
11	GASW_BH10	Nov 19, 2020		Water	S20-No37792		X	X		X	X	X			X	X	X	X		X		X			X	X
12	GASW_BH11	Nov 20, 2020		Water	S20-No37793		X	X		X	X	X			X	X	X	X		X		X			X	X
13	GASW_BH23	Nov 18, 2020		Water	S20-No37794		X	X		X	X	X			X	X	X	X		X		X			X	X
14	GASW_BH25A	Nov 20, 2020		Water	S20-No37795		X	X		X	X	X		X		X	X	X	X			X			X	X
15	QC02	Nov 19, 2020		Water	S20-No37796																	X			X	
16	RB01	Nov 19, 2020		Water	S20-No37797								X													
17	TRIP SPIKE	Nov 19, 2020		Water	S20-No37798																			X		
18	TRIP BLANK	Nov 19, 2020		Water	S20-No37799																		X			
19	SRT_BH059	Nov 18, 2020		Water	S20-No37800		X	X		X	X	X			X	X	X	X		X		X			X	X

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Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	**Report #:**	758435	**Due:**	Nov 27, 2020
		Phone:	02 9239 7100	**Priority:**	5 Day
		Fax:	02 9239 7199	**Contact Name:**	Henry Luo
Project Name:	CENTRAL				
Project ID:	21-27234				

Eurofins Analytical Services Manager : Alena Bounkeua

Sample Detail	CANCELLED	Cyanide (total)	Ferrous Iron - Fe2+	HOLD	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	Phenols (IWRG 621)	Major Anions	Hardness Set	Major Cations	TRH (after Silica Gel cleanup)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X		X	X	X	X	X	X	X	X	X			X	X
Sydney Laboratory - NATA Site # 18217	X	X	X	X	X			X	X	X				X	X	X	X	X	X		
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
20 Unlabelled Nov 19, 2020 Water S20-No37824				X																	
Test Counts	1	13	14	1	14	13	13	1	14	14	13	13	13	14	14	15	15	1	1	15	13

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH C15-C28 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH C29-C36 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Total PAH*	mg/L	-			0.00001	N/A	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Chloride	mg/L	< 1			1	Pass	
Cyanide (total)	mg/L	< 0.004			0.004	Pass	
Ferrous Iron - Fe2+	mg/L	< 0.5			0.5	Pass	
Nitrate (as N)	mg/L	< 0.02			0.02	Pass	
Sulphate (as SO4)	mg/L	< 5			5	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
TRH >C10-C16	%	82			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14	%	86			70-130	Pass	
LCS - % Recovery							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	%	88			70-130	Pass	
LCS - % Recovery							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	%	110			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	101			70-130	Pass	
Chloride	%	122			70-130	Pass	
Cyanide (total)	%	116			70-130	Pass	
Ferrous Iron - Fe2+	%	95			70-130	Pass	
Nitrate (as N)	%	100			70-130	Pass	
Sulphate (as SO4)	%	112			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	%	98			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	102			80-120	Pass	
Magnesium	%	97			80-120	Pass	
Potassium	%	98			80-120	Pass	
Sodium	%	113			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	100			80-120	Pass	
Cadmium (filtered)	%	100			80-120	Pass	
Chromium (filtered)	%	93			80-120	Pass	
Copper (filtered)	%	91			80-120	Pass	
Lead (filtered)	%	93			80-120	Pass	
Manganese (filtered)	%	97			80-120	Pass	
Mercury (filtered)	%	88			80-120	Pass	
Nickel (filtered)	%	93			80-120	Pass	
Zinc (filtered)	%	94			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1					
Acenaphthene	M20-No50324	NCP	%	87			70-130	Pass	
Acenaphthylene	M20-No50324	NCP	%	88			70-130	Pass	
Anthracene	M20-No50324	NCP	%	106			70-130	Pass	
Chrysene	M20-No50324	NCP	%	104			70-130	Pass	
Fluorene	M20-No50324	NCP	%	87			70-130	Pass	
Indeno(1.2.3-cd)pyrene	M20-No50324	NCP	%	96			70-130	Pass	
Naphthalene	M20-No50324	NCP	%	75			70-130	Pass	
Phenanthrene	M20-No50324	NCP	%	75			70-130	Pass	
Pyrene	M20-No50324	NCP	%	88			70-130	Pass	
Spike - % Recovery									
				Result 1					
Bicarbonate Alkalinity (as CaCO3)	M20-No42436	NCP	%	81			70-130	Pass	
Chloride	M20-No42867	NCP	%	114			70-130	Pass	
Sulphate (as SO4)	M20-No43030	NCP	%	119			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Manganese (filtered)	S20-No37431	NCP	%	92			75-125	Pass	
Spike - % Recovery									
				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ammonia (as N)	S20-No37783	CP	%	96			70-130	Pass	
Cyanide (total)	S20-No37783	CP	%	118			70-130	Pass	
Nitrate (as N)	S20-No37783	CP	%	100			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1					
Fluoranthene	M20-No50324	NCP	%	92			70-130	Pass	
Spike - % Recovery									
				Result 1					
Total Suspended Solids Dried at 103–105°C	S20-No37787	CP	%	92			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ferrous Iron - Fe2+	S20-No37789	CP	%	83			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S20-No37792	CP	%	94			70-130	Pass	
Nitrate (as N)	S20-No37792	CP	%	102			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S20-No37793	CP	%	131			75-125	Fail	Q08
Magnesium	S20-No37793	CP	%	118			75-125	Pass	
Potassium	S20-No37793	CP	%	102			75-125	Pass	
Sodium	S20-No37793	CP	%	113			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-No40553	NCP	%	95			75-125	Pass	
Cadmium	S20-No40553	NCP	%	103			75-125	Pass	
Chromium	S20-No40553	NCP	%	99			75-125	Pass	
Copper	S20-No40553	NCP	%	104			75-125	Pass	
Lead	S20-No49268	NCP	%	78			75-125	Pass	
Mercury	S20-No40553	NCP	%	104			75-125	Pass	
Nickel	S20-No40553	NCP	%	100			75-125	Pass	
Zinc	S20-No40553	NCP	%	110			75-125	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S20-No37800	CP	%	100			70-130	Pass	
Toluene	S20-No37800	CP	%	107			70-130	Pass	
Ethylbenzene	S20-No37800	CP	%	110			70-130	Pass	
m&p-Xylenes	S20-No37800	CP	%	110			70-130	Pass	
o-Xylene	S20-No37800	CP	%	112			70-130	Pass	
Xylenes - Total*	S20-No37800	CP	%	111			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S20-No37800	CP	%	103			70-130	Pass	
TRH C6-C10	S20-No37800	CP	%	89			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S20-No37800	CP	%	87			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ferrous Iron - Fe2+	S20-No37800	CP	%	98			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S20-No37378	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S20-No37378	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S20-No37378	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S20-No37378	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S20-No37378	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S20-No37378	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	S20-No37782	CP	mg/L	260	300	15	30%	Pass	
Cyanide (total)	S20-No37782	CP	mg/L	< 0.004	< 0.004	<1	30%	Pass	
pH (at 25 °C)	S20-No37782	CP	pH Units	7.8	7.8	pass	30%	Pass	
Duplicate									
Alkalinity (speciated)				Result 1	Result 2	RPD			
Carbonate Alkalinity (as CaCO3)	S20-No37782	CP	mg/L	< 10	< 10	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S20-No37782	CP	mg/L	0.001	< 0.001	22	30%	Pass	
Cadmium (filtered)	S20-No37782	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S20-No37782	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S20-No37782	CP	mg/L	0.003	0.003	13	30%	Pass	
Lead (filtered)	S20-No37782	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	S20-No37782	CP	mg/L	0.044	0.043	1.0	30%	Pass	
Mercury (filtered)	S20-No37782	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S20-No37782	CP	mg/L	0.004	0.004	2.0	30%	Pass	
Zinc (filtered)	S20-No37782	CP	mg/L	0.022	0.020	7.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S20-No37783	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Nitrate (as N)	S20-No37783	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Total Suspended Solids Dried at 103–105°C	S20-No37783	CP	mg/L	250	240	5.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S20-No37785	CP	mg/L	95	86	10	30%	Pass	
Sulphate (as SO4)	S20-No37785	CP	mg/L	32	32	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Suspended Solids Dried at 103–105°C	S20-No37787	CP	mg/L	710	690	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ferrous Iron - Fe2+	S20-No37789	CP	mg/L	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S20-No37792	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Nitrate (as N)	S20-No37792	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	S20-No37792	CP	mg/L	820	910	11	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S20-No37792	CP	mg/L	0.001	0.001	3.0	30%	Pass	
Cadmium (filtered)	S20-No37792	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S20-No37792	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S20-No37792	CP	mg/L	0.002	0.002	10	30%	Pass	
Lead (filtered)	S20-No37792	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	S20-No37792	CP	mg/L	0.17	0.18	3.0	30%	Pass	
Mercury (filtered)	S20-No37792	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S20-No37792	CP	mg/L	0.036	0.037	2.0	30%	Pass	
Zinc (filtered)	S20-No37792	CP	mg/L	0.035	0.035	1.0	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S20-No37793	CP	mg/L	18	18	2.0	30%	Pass	
Magnesium	S20-No37793	CP	mg/L	10	9.9	5.0	30%	Pass	
Potassium	S20-No37793	CP	mg/L	9.6	9.7	2.0	30%	Pass	
Sodium	S20-No37793	CP	mg/L	47	47	2.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	S20-No37794	CP	mg/L	0.010	0.012	14	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-No46854	NCP	mg/L	0.011	0.009	20	30%	Pass	
Cadmium	S20-No46854	NCP	mg/L	0.0010	0.0009	11	30%	Pass	
Chromium	S20-No46854	NCP	mg/L	0.023	0.020	16	30%	Pass	
Copper	S20-No46854	NCP	mg/L	0.032	0.029	8.0	30%	Pass	
Lead	S20-No46854	NCP	mg/L	0.078	0.072	8.0	30%	Pass	
Mercury	S20-No46854	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S20-No46854	NCP	mg/L	0.013	0.012	12	30%	Pass	
Zinc	S20-No46854	NCP	mg/L	0.23	0.23	2.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-No37799	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S20-No37799	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S20-No37799	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S20-No37799	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S20-No37799	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S20-No37799	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-No37799	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S20-No37799	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S20-No37799	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ferrous Iron - Fe2+	S20-No37800	CP	mg/L	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised By

Alena Bounkeua	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Gabriele Cordero	Senior Analyst-Inorganic (NSW)
Gabriele Cordero	Senior Analyst-Metal (NSW)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)

Glenn Jackson
General Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

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

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☑ Sydney
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ Brisbane
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ Melbourne
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

: GHD Pty Ltd, Sydney	Contact Name : Terry Nham	Purchase Order : 2127234	COC Number :
	Project Manager : Henry Luo	PROJECT Number : 21-27234	Eurofins | mgt quote ID : GHD Rates 2020
3 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	PROJECT Name : Central	Data output format: ESDAT

ons & Comments :

l water batch number:

Analytes

Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)
CSM_BH02	23.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
CSM_BH04	23.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
CSM_BH06	22.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
CSM_BH08	21.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
CSM_BH09S	21.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
CSM_BH10S	21.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
SRT_BH047	22.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
SRT_BH050	23.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
SRT_BH052	22.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
~~SRT_BH050~~		~~Water~~	~~X~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~			
GASW_BH10	23.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
GASW_BH11	21.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
GASW_BH23	21.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
GASW_BH25A	21.12.20	Water	X	X	X		X	X	X	X		X	X	X	X	X			
~~QC01~~ SD01	21.12.20	Water	PLEASE SEND TO ALS WITH ATTACHED COC																
~~QC02~~ BD01	21.12.20	Water	X	X															

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 day
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 day
Heavy Metals	6 months	Heavy Metals	6 mon
Mercury, CrVI	28 days	Mercury, CrVI	28 day
Microbiological testing	24 hours	Microbiological testing	72 hou
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 day
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hou
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:								Sample comments:
500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
~~1~~		~~4~~		~~2~~	~~2~~			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			
1		4		2	2			

Partial Sample

ed By: Jake Vickers
ne : 14.00

Laboratory Staff
Received By:
Date & Time : 23/12/2020 2:50pm
Signature:

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☑ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 3.5°C
Report number:

#765715

eurofins | mgt

☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	Contact Name : Terry Nham	Purchase Order : 2127234	COC Number :
Office Address :	Project Manager : Henry Luo	PROJECT Number : 21-27234	Eurofins | mgt quote ID : GHD Rates 2020
Level 15, 133 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	PROJECT Name : Central	Data output format: ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number:

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)				
1	RB01	23.12.20	Water																	X				
2	Trip Blank	21.12.20	Water																X					
3	Trip Spike	21.12.20	Water																X					
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag
		1					
				2			
				2			

Sample comments:

Laboratory Staff		Turn around time	Method Of Shipment	Temperature on arrival:
Relinquished By:	Received By:	1 DAY ☐ 2 DAY ☐ 3 DAY ☐	☐ Courier	
Date & Time :	Date & Time :	5 DAY ☑ 10 DAY ☐ Other:	☑ Hand Delivered	Report number:
Signature:	Signature:		☐ Postal	
			Courier Consignment # :	

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com
☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5 Rose Gum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 024423 2063 E: nowra@alsglobal.com
☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townesville.environmental@alsglobal.com
☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: GHD Pty Ltd	TURNAROUND REQUIREMENTS (Standard TAT may be longer for some tests e.g.. Ultra Trace Organics) ☐ Standard TAT (List due date): ☐ Non Standard or urgent TAT (List due date):		FOR LABORATORY USE ONLY (Circle)
OFFICE: Sydney			Custody Seal Intact? Yes No N/A
PROJECT: 21-27234 Central	ALS QUOTE NO.: EN/005/19	COC SEQUENCE NUMBER (Circle)	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 2127234		COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Henry Luo	CONTACT PH: 02 9239 7044 / 0414 090 002	OF: 1 2 3 4 5 6 7	Other comment:

SAMPLER: Terry Nham	SAMPLER MOBILE: 0403 251 883	RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	Terry Nham (GHD)			
Email Reports to: henry.luo@ghd.com terry.nham@ghd.com jake.vickers@ghd.com		DATE/TIME:	DATE/TIME:	DATE/TIME:	DATE/TIME:
Email Invoice to (will default to PM if no other addresses are listed):					

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).																
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	TRH / BTEXN / 8 Metals (W-5)	PAH - Ultra Trace (EP132B)															
	~~SD01~~ SD01	21.12.20	Water		9	X	X															
				TOTAL																		

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	GHD Pty Ltd NSW
Contact name:	Terry Nham
Project name:	CENTRAL
Project ID:	21-27234
Turnaround time:	5 Day
Date/Time received	Dec 23, 2020 2:50 PM
Eurofins reference	765715

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 3.5 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
✓	Split sample sent to requested external lab.
✗	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

SD01 forwarded to ALS for analysis. NO Vials received for CSM_BH04 > subsampled from amber bottle as per client request.

Contact

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

Elvis Dsouza on phone : or by email: ElvisDsouza@eurofins.com

Results will be delivered electronically via email to Terry Nham - Terry.Nham@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Terry Nham**

Report **765715-W-V2**
Project name CENTRAL
Project ID 21-27234
Received Date Dec 23, 2020

Client Sample ID			**CSM_BH02**	**CSM_BH04**	**CSM_BH06**	**CSM_BH08**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S20-De49833**	**S20-De49834**	**S20-De49835**	**S20-De49836**
Date Sampled			**Dec 23, 2020**	**Dec 23, 2020**	**Dec 22, 2020**	**Dec 21, 2020**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	76	91	76	85
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49833	S20-De49834	S20-De49835	S20-De49836
Date Sampled			Dec 23, 2020	Dec 23, 2020	Dec 22, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	INT	INT	INT	106
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	64	86	58	105
p-Terphenyl-d14 (surr.)	1	%	78	115	86	142
Ammonia (as N)	0.01	mg/L	< 0.01	0.13	0.03	0.01
Chloride	1	mg/L	44	110	240	92
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	8.2	11	3.8
Nitrate (as N)	0.02	mg/L	0.05	< 0.02	< 0.02	0.12
pH (at 25 °C)	0.1	pH Units	6.6	6.0	6.4	6.1
Sulphate (as SO4)	2	mg/L	38	29	24	50

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49833	S20-De49834	S20-De49835	S20-De49836
Date Sampled			Dec 23, 2020	Dec 23, 2020	Dec 22, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	190	330	430	290
Total Suspended Solids Dried at 103–105°C	5	mg/L	980	17000	2500	96
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	140	99	91	100
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	0.002	0.006	0.002
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese	0.005	mg/L	0.36	7.4	0.74	0.29
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.009	0.046	0.017	0.024
Zinc (filtered)	0.005	mg/L	0.015	0.070	0.041	0.045
Alkali Metals						
Calcium	0.5	mg/L	12	58	17	9.0
Magnesium	0.5	mg/L	12	66	25	12
Potassium	0.5	mg/L	4.1	16	4.7	3.1
Sodium	0.5	mg/L	56	58	110	74

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH050
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49837	S20-De49838	S20-De49839	S20-De49840
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 22, 2020	Dec 22, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	81	87	86	96
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH050
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49837	S20-De49838	S20-De49839	S20-De49840
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 22, 2020	Dec 22, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.3
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	138	INT	150	44
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Client Sample ID			CSM_BH09S	CSM_BH10S	SRT_BH047	SRT_BH050
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49837	S20-De49838	S20-De49839	S20-De49840
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 22, 2020	Dec 22, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	109	100	65	73
p-Terphenyl-d14 (surr.)	1	%	115	74	99	101
Ammonia (as N)	0.01	mg/L	< 0.01	< 0.01	0.01	-
Chloride	1	mg/L	60	25	24	-
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	-
Ferrous Iron - Fe2+	0.5	mg/L	5.3	< 0.5	< 0.5	-
Nitrate (as N)	0.02	mg/L	< 0.02	1.9	19	-
pH (at 25 °C)	0.1	pH Units	6.3	5.9	7.3	-
Sulphate (as SO4)	2	mg/L	170	58	14	-
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	370	150	220	140
Total Suspended Solids Dried at 103–105°C	5	mg/L	84	1700	65	11000
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	63	29	82	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.086	0.002	0.003	0.15
Lead (filtered)	0.001	mg/L	0.002	< 0.001	< 0.001	0.003
Manganese	0.005	mg/L	1.3	0.71	0.11	-
Manganese (filtered)	0.005	mg/L	-	-	-	0.022
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.022	0.002	0.003	0.012
Zinc (filtered)	0.005	mg/L	0.15	< 0.005	0.019	0.13
Alkali Metals						
Calcium	0.5	mg/L	3.8	8.1	31	-
Magnesium	0.5	mg/L	7.9	8.1	10	-
Potassium	0.5	mg/L	2.8	5.3	1.1	-
Sodium	0.5	mg/L	110	35	27	-

Client Sample ID			SRT_BH052	GASW_BH10S	GASW_BH11	GASW_BH23
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49841	S20-De49842	S20-De49843	S20-De49844
Date Sampled			Dec 22, 2020	Dec 23, 2020	Dec 21, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	0.90
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	0.07	0.08
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	0.2	0.2
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	0.27	0.28

Client Sample ID			SRT_BH052	GASW_BH10S	GASW_BH11	GASW_BH23
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49841	S20-De49842	S20-De49843	S20-De49844
Date Sampled			Dec 22, 2020	Dec 23, 2020	Dec 21, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.85
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.01
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.016
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.02
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.01
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.03
4-Bromofluorobenzene (surr.)	1	%	88	74	82	76
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.1
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	0.90
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	0.03
TRH >C10-C16	0.05	mg/L	< 0.05	0.05	0.18	0.16
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	0.05	0.18	0.16
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	0.2	0.2
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	0.38	0.36
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	0.12	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	0.12	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	131	INT	140	142
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			SRT_BH052	GASW_BH10S	GASW_BH11	GASW_BH23
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49841	S20-De49842	S20-De49843	S20-De49844
Date Sampled			Dec 22, 2020	Dec 23, 2020	Dec 21, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	83	77	65	105
p-Terphenyl-d14 (surr.)	1	%	97	96	90	78
Ammonia (as N)	0.01	mg/L	< 0.01	< 0.01	0.10	0.11
Chloride	1	mg/L	50	210	47	26
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	0.013
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	6.7	< 0.5	4.5
Nitrate (as N)	0.02	mg/L	7.0	< 0.02	0.11	< 0.02
pH (at 25 °C)	0.1	pH Units	6.9	6.9	6.6	7.4
Sulphate (as SO4)	2	mg/L	34	2.1	52	190
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	250	780	270	690
Total Suspended Solids Dried at 103–105°C	5	mg/L	89	880	5100	140
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	75	610	96	400
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.003
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	0.004	0.003
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.003
Manganese	0.005	mg/L	0.052	0.37	0.58	0.48
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	0.018	0.003	0.001
Zinc (filtered)	0.005	mg/L	< 0.005	0.010	0.040	0.010
Alkali Metals						
Calcium	0.5	mg/L	21	96	29	180
Magnesium	0.5	mg/L	4.8	55	12	10
Potassium	0.5	mg/L	2.1	12	6.6	22
Sodium	0.5	mg/L	49	140	50	37

Client Sample ID			GASW_BH25A	BD01	RB01	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49845	S20-De49846	S20-De49847	S20-De49848
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 23, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	2.4	< 0.02	-	< 0.02
TRH C10-C14	0.05	mg/L	0.21	< 0.05	-	-
TRH C15-C28	0.1	mg/L	0.3	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-C36 (Total)	0.1	mg/L	0.51	< 0.1	-	-
BTEX						
Benzene	0.001	mg/L	1.3	< 0.001	-	< 0.001
Toluene	0.001	mg/L	0.60	< 0.001	-	< 0.001
Ethylbenzene	0.001	mg/L	0.062	< 0.001	-	< 0.001
m&p-Xylenes	0.002	mg/L	0.11	< 0.002	-	< 0.002
o-Xylene	0.001	mg/L	0.071	< 0.001	-	< 0.001
Xylenes - Total*	0.003	mg/L	0.18	< 0.003	-	< 0.003
4-Bromofluorobenzene (surr.)	1	%	94	81	-	140
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.2	< 0.01	-	< 0.01
TRH C6-C10	0.02	mg/L	2.6	< 0.02	-	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	0.46	< 0.02	-	< 0.02
TRH >C10-C16	0.05	mg/L	0.33	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	0.33	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	0.3	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C10-C40 (total)*	0.1	mg/L	0.63	< 0.1	-	-
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	-	-	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	-	-	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	-	-	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	-	-	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	-	-	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	-	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	-	-	-
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	-	-	-
Total Halogenated Phenol*	0.01	mg/L	< 0.01	-	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	-	-	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	-	-	-
2-Methylphenol (o-Cresol)	0.003	mg/L	0.009	-	-	-
2-Nitrophenol	0.01	mg/L	< 0.01	-	-	-
2.4-Dimethylphenol	0.003	mg/L	< 0.003	-	-	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	-	-	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	-	-	-
4-Nitrophenol	0.03	mg/L	< 0.03	-	-	-
Dinoseb	0.1	mg/L	< 0.1	-	-	-
Phenol	0.003	mg/L	< 0.003	-	-	-
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	-	-	-
Phenol-d6 (surr.)	1	%	INT	-	-	-
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	-	-	-
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-

Client Sample ID			GASW_BH25A	BD01	RB01	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49845	S20-De49846	S20-De49847	S20-De49848
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 23, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	-	-	-
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	-	-	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Fluoranthene	0.00001	mg/L	0.00012	< 0.00001	-	-
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Naphthalene	0.00001	mg/L	0.00019	< 0.00001	-	-
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	-	-
Pyrene	0.00001	mg/L	0.00013	< 0.00001	-	-
Total PAH*	0.00001	mg/L	0.00044	< 0.00001	-	-
2-Fluorobiphenyl (surr.)	1	%	100	75	-	-
p-Terphenyl-d14 (surr.)	1	%	107	91	-	-
Ammonia (as N)	0.01	mg/L	0.24	-	-	-
Chloride	1	mg/L	20	-	-	-
Cyanide (total)	0.004	mg/L	0.010	-	-	-
Ferrous Iron - Fe2+	0.5	mg/L	3.2	-	-	-
Nitrate (as N)	0.02	mg/L	< 0.02	-	-	-
pH (at 25 °C)	0.1	pH Units	7.5	-	-	-
Sulphate (as SO4)	2	mg/L	240	-	-	-
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	510	-	-	-
Total Suspended Solids Dried at 103–105°C	5	mg/L	39	-	-	-
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	200	-	-	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	-	-	-
Heavy Metals						
Arsenic	0.001	mg/L	-	-	< 0.001	-
Arsenic (filtered)	0.001	mg/L	0.003	< 0.001	-	-
Cadmium	0.0002	mg/L	-	-	< 0.0002	-
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	-	-
Chromium	0.001	mg/L	-	-	< 0.001	-
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Copper	0.001	mg/L	-	-	< 0.001	-
Copper (filtered)	0.001	mg/L	0.005	0.001	-	-
Lead	0.001	mg/L	-	-	< 0.001	-
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	-	-
Manganese	0.005	mg/L	0.28	-	-	-

Client Sample ID			GASW_BH25A	BD01	RB01	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S20-De49845	S20-De49846	S20-De49847	S20-De49848
Date Sampled			Dec 21, 2020	Dec 21, 2020	Dec 23, 2020	Dec 21, 2020
Test/Reference	LOR	Unit				
Heavy Metals						
Mercury	0.0001	mg/L	-	-	< 0.0001	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Nickel	0.001	mg/L	-	-	< 0.001	-
Nickel (filtered)	0.001	mg/L	0.011	0.023	-	-
Zinc	0.005	mg/L	-	-	< 0.005	-
Zinc (filtered)	0.005	mg/L	0.072	0.045	-	-
Alkali Metals						
Calcium	0.5	mg/L	130	-	-	-
Magnesium	0.5	mg/L	9.9	-	-	-
Potassium	0.5	mg/L	4.9	-	-	-
Sodium	0.5	mg/L	23	-	-	-

Client Sample ID			TRIP SPIKE
Sample Matrix			Water
Eurofins Sample No.			S20-De49849
Date Sampled			Dec 21, 2020
Test/Reference	LOR	Unit	
TRH C6-C10	1	%	79
Total Recoverable Hydrocarbons			
Naphthalene	1	%	93
TRH C6-C9	1	%	79
BTEX			
Benzene	1	%	97
Ethylbenzene	1	%	91
m&p-Xylenes	1	%	99
o-Xylene	1	%	86
Toluene	1	%	92
Xylenes - Total	1	%	90
4-Bromofluorobenzene (surr.)	1	%	137

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 29, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Dec 29, 2020	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 29, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Dec 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 29, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Sydney	Dec 29, 2020	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (Halogenated)	Sydney	Dec 24, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Dec 24, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Sydney	Dec 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Sydney	Dec 24, 2020	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
- Method: TRH C6-C36 (Silica Gel Cleanup) - MGT 100A			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Dec 30, 2020	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Cyanide (total)	Melbourne	Dec 24, 2020	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Ferrous Iron - Fe2+	Sydney	Dec 24, 2020	7 Days
- Method: LTM-INO-4190 Ferrous Iron in Water by Discrete Analyser			
pH (at 25 °C)	Sydney	Dec 24, 2020	1 Days
- Method: LTM-GEN-7090 pH in water by ISE			
Total Suspended Solids Dried at 103–105°C	Sydney	Dec 24, 2020	7 Days
- Method: LTM-INO-4070 Analysis of Suspended Solids in Water by Gravimetry			
Metals M8	Sydney	Dec 29, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals	Sydney	Dec 30, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals (filtered)	Sydney	Dec 30, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Major Cations			
Ammonia (as N)	Sydney	Dec 24, 2020	28 Days
- Method: LTM-INO-4200 Ammonia by Discrete Analyser			
Alkali Metals	Sydney	Dec 30, 2020	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Major Anions			
Chloride	Sydney	Dec 24, 2020	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Nitrate (as N)	Melbourne	Dec 30, 2020	28 Days
- Method: LTM-INO-4120 Analysis of NOx NO2 NH3 by FIA			
Sulphate (as SO4)	Sydney	Dec 24, 2020	28 Days
- Method: E045 Anions by Ion Chromatography			

Description	Testing Site	Extracted	Holding Time
Alkalinity (speciated)	Melbourne	Dec 24, 2020	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Sydney	Dec 24, 2020	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			

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ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: GHD Pty Ltd NSW
Address: Level 15, 133 Castlereagh Street
Sydney
NSW 2000

Project Name: CENTRAL
Project ID: 21-27234

Order No.: 2127234
Report #: 765715
Phone: 02 9239 7100
Fax: 02 9239 7199

Received: Dec 23, 2020 2:50 PM
Due: Jan 4, 2021
Priority: 5 Day
Contact Name: Terry Nham

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Cyanide (total)	Ferrous Iron - Fe2+	Manganese	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	Major Anions	Major Cations	TRH (after Silica Gel cleanup)	Eurofins Suite B6	BTEXN and Volatile TRH	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X							X						X	
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X		X
Brisbane Laboratory - NATA Site # 20794																				
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory																				
External Laboratory																				
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**															
1	CSM_BH02	Dec 23, 2020		Water	S20-De49833	X	X	X	X	X		X	X	X	X	X			X	X
2	CSM_BH04	Dec 23, 2020		Water	S20-De49834	X	X	X	X	X		X	X	X	X	X			X	X
3	CSM_BH06	Dec 22, 2020		Water	S20-De49835	X	X	X	X	X		X	X	X	X	X			X	X
4	CSM_BH08	Dec 21, 2020		Water	S20-De49836	X	X	X	X	X		X	X	X	X	X			X	X
5	CSM_BH09S	Dec 21, 2020		Water	S20-De49837	X	X	X	X	X		X	X	X	X	X			X	X
6	CSM_BH10S	Dec 21, 2020		Water	S20-De49838	X	X	X	X	X		X	X	X	X	X			X	X
7	SRT_BH047	Dec 22, 2020		Water	S20-De49839	X	X	X	X	X		X	X	X	X	X			X	X
8	SRT_BH050	Dec 22, 2020		Water	S20-De49840			X		X		X			X	X			X	X
9	SRT_BH052	Dec 22, 2020		Water	S20-De49841	X	X	X	X	X		X	X	X	X	X			X	X

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Melbourne Laboratory - NATA Site # 1254 & 14271						X							X						X	
Sydney Laboratory - NATA Site # 18217							X	X	X	X	X	X	X	X	X	X	X	X		X
Brisbane Laboratory - NATA Site # 20794																				
Perth Laboratory - NATA Site # 23736																				
Mayfield Laboratory																				
External Laboratory																				
10	GASW_BH10S	Dec 23, 2020		Water	S20-De49842	X	X	X	X	X		X	X	X	X	X			X	X
11	GASW_BH11	Dec 21, 2020		Water	S20-De49843	X	X	X	X	X		X	X	X	X	X			X	X
12	GASW_BH23	Dec 21, 2020		Water	S20-De49844	X	X	X	X	X		X	X	X	X	X			X	X
13	GASW_BH25A	Dec 21, 2020		Water	S20-De49845	X	X	X	X	X		X	X	X	X	X			X	X
14	BD01	Dec 21, 2020		Water	S20-De49846											X			X	
15	RB01	Dec 23, 2020		Water	S20-De49847						X									
16	TRIP BLANK	Dec 21, 2020		Water	S20-De49848												X			
17	TRIP SPIKE	Dec 21, 2020		Water	S20-De49849													X		
Test Counts						12	12	13	12	13	1	13	12	12	13	14	1	1	14	13

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	mg/L	< 0.00001			0.00001	Pass	
Acenaphthylene	mg/L	< 0.00001			0.00001	Pass	
Anthracene	mg/L	< 0.00001			0.00001	Pass	
Benz(a)anthracene	mg/L	< 0.00001			0.00001	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00001			0.00001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Chrysene	mg/L	< 0.00001			0.00001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00001			0.00001	Pass	
Fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Fluorene	mg/L	< 0.00001			0.00001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00001			0.00001	Pass	
Naphthalene	mg/L	< 0.00001			0.00001	Pass	
Phenanthrene	mg/L	< 0.00001			0.00001	Pass	
Pyrene	mg/L	< 0.00001			0.00001	Pass	
Total PAH*	mg/L	-			0.00001	N/A	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Chloride	mg/L	< 1			1	Pass	
Cyanide (total)	mg/L	< 0.004			0.004	Pass	
Ferrous Iron - Fe2+	mg/L	< 0.5			0.5	Pass	
Sulphate (as SO4)	mg/L	< 2			2	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	mg/L	< 5			5	Pass	
Total Suspended Solids Dried at 103–105°C	mg/L	< 5			5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Manganese	mg/L	< 0.005			0.005	Pass	
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	70			70-130	Pass	
TRH C10-C14	%	79			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	92			70-130	Pass	
Toluene	%	111			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Ethylbenzene	%	107			70-130	Pass	
m&p-Xylenes	%	102			70-130	Pass	
o-Xylene	%	112			70-130	Pass	
Xylenes - Total*	%	105			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	104			70-130	Pass	
Naphthalene	%	93			70-130	Pass	
TRH C6-C10	%	71			70-130	Pass	
TRH C6-C10	%	98			70-130	Pass	
TRH >C10-C16	%	83			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	75			30-130	Pass	
2.4-Dichlorophenol	%	53			30-130	Pass	
2.4.5-Trichlorophenol	%	114			30-130	Pass	
2.4.6-Trichlorophenol	%	102			30-130	Pass	
2.6-Dichlorophenol	%	93			30-130	Pass	
4-Chloro-3-methylphenol	%	73			30-130	Pass	
Pentachlorophenol	%	93			30-130	Pass	
Tetrachlorophenols - Total	%	72			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	32			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	97			30-130	Pass	
2-Methylphenol (o-Cresol)	%	66			30-130	Pass	
2-Nitrophenol	%	93			30-130	Pass	
2.4-Dimethylphenol	%	40			30-130	Pass	
2.4-Dinitrophenol	%	27			30-130	Fail	Q08
3&4-Methylphenol (m&p-Cresol)	%	60			30-130	Pass	
4-Nitrophenol	%	85			30-130	Pass	
Dinoseb	%	114			30-130	Pass	
Phenol	%	33			30-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	125			70-130	Pass	
Acenaphthylene	%	106			70-130	Pass	
Anthracene	%	85			70-130	Pass	
Benz(a)anthracene	%	88			70-130	Pass	
Benzo(a)pyrene	%	128			70-130	Pass	
Benzo(b&j)fluoranthene	%	96			70-130	Pass	
Benzo(g.h.i)perylene	%	120			70-130	Pass	
Benzo(k)fluoranthene	%	109			70-130	Pass	
Chrysene	%	108			70-130	Pass	
Dibenz(a.h)anthracene	%	95			70-130	Pass	
Fluoranthene	%	108			70-130	Pass	
Fluorene	%	125			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	93			70-130	Pass	
Naphthalene	%	106			70-130	Pass	
Phenanthrene	%	106			70-130	Pass	
Pyrene	%	126			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	98			70-130	Pass	
Chloride	%	112			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cyanide (total)	%	80			70-130	Pass	
Ferrous Iron - Fe2+	%	100			70-130	Pass	
Sulphate (as SO4)	%	89			70-130	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	%	103			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	%	86			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	100			80-120	Pass	
Arsenic (filtered)	%	97			80-120	Pass	
Cadmium	%	100			80-120	Pass	
Cadmium (filtered)	%	98			80-120	Pass	
Chromium	%	103			80-120	Pass	
Chromium (filtered)	%	92			80-120	Pass	
Copper	%	97			80-120	Pass	
Copper (filtered)	%	92			80-120	Pass	
Lead	%	104			80-120	Pass	
Lead (filtered)	%	97			80-120	Pass	
Manganese	%	102			80-120	Pass	
Manganese (filtered)	%	96			80-120	Pass	
Mercury	%	109			80-120	Pass	
Mercury (filtered)	%	100			80-120	Pass	
Nickel	%	103			80-120	Pass	
Nickel (filtered)	%	99			80-120	Pass	
Zinc	%	100			80-120	Pass	
Zinc (filtered)	%	95			80-120	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	103			80-120	Pass	
Magnesium	%	104			80-120	Pass	
Potassium	%	99			80-120	Pass	
Sodium	%	105			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S20-De49762	NCP	%	95			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S20-De49762	NCP	%	98			70-130	Pass	
Toluene	S20-De49762	NCP	%	108			70-130	Pass	
Ethylbenzene	S20-De49762	NCP	%	108			70-130	Pass	
m&p-Xylenes	S20-De49762	NCP	%	102			70-130	Pass	
o-Xylene	S20-De49762	NCP	%	107			70-130	Pass	
Xylenes - Total*	S20-De49762	NCP	%	103			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S20-De49762	NCP	%	109			70-130	Pass	
TRH C6-C10	S20-De49762	NCP	%	95			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1					
Acenaphthene	P20-De39397	NCP	%	86			70-130	Pass	
Acenaphthylene	P20-De39397	NCP	%	75			70-130	Pass	
Anthracene	P20-De39397	NCP	%	76			70-130	Pass	
Benz(a)anthracene	P20-De39397	NCP	%	73			70-130	Pass	
Benzo(a)pyrene	P20-De39397	NCP	%	86			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benzo(b&j)fluoranthene	P20-De39397	NCP	%	100			70-130	Pass	
Benzo(g.h.i)perylene	P20-De39397	NCP	%	75			70-130	Pass	
Benzo(k)fluoranthene	P20-De39397	NCP	%	108			70-130	Pass	
Chrysene	P20-De39397	NCP	%	81			70-130	Pass	
Dibenz(a.h)anthracene	P20-De39397	NCP	%	82			70-130	Pass	
Fluoranthene	P20-De39397	NCP	%	75			70-130	Pass	
Fluorene	P20-De39397	NCP	%	83			70-130	Pass	
Indeno(1.2.3-cd)pyrene	P20-De39397	NCP	%	77			70-130	Pass	
Naphthalene	P20-De39397	NCP	%	78			70-130	Pass	
Phenanthrene	P20-De39397	NCP	%	74			70-130	Pass	
Pyrene	P20-De39397	NCP	%	73			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S20-De49833	CP	%	115			70-130	Pass	
Chloride	S20-De49758	NCP	%	112			70-130	Pass	
Sulphate (as SO4)	S20-De49758	NCP	%	87			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Manganese	S20-De49760	NCP	%	80			75-125	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S20-De49760	NCP	%	80			75-125	Pass	
Magnesium	S20-De49760	NCP	%	98			75-125	Pass	
Potassium	S20-De49760	NCP	%	95			75-125	Pass	
Sodium	S20-De49760	NCP	%	76			75-125	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	S20-De49834	CP	%	92			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	P20-De39397	NCP	%	96			30-130	Pass	
2.4-Dichlorophenol	P20-De39397	NCP	%	104			30-130	Pass	
2.4.5-Trichlorophenol	P20-De39397	NCP	%	108			30-130	Pass	
2.4.6-Trichlorophenol	P20-De39397	NCP	%	100			30-130	Pass	
2.6-Dichlorophenol	P20-De39397	NCP	%	101			30-130	Pass	
4-Chloro-3-methylphenol	P20-De39397	NCP	%	113			30-130	Pass	
Pentachlorophenol	P20-De39397	NCP	%	105			30-130	Pass	
Tetrachlorophenols - Total	P20-De39397	NCP	%	21			30-130	Fail	Q08
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	P20-De39397	NCP	%	54			30-130	Pass	
2-Methyl-4.6-dinitrophenol	P20-De39397	NCP	%	47			30-130	Pass	
2-Methylphenol (o-Cresol)	P20-De39397	NCP	%	102			30-130	Pass	
2-Nitrophenol	P20-De39397	NCP	%	108			30-130	Pass	
2.4-Dimethylphenol	P20-De39397	NCP	%	136			30-130	Fail	Q08
2.4-Dinitrophenol	P20-De39397	NCP	%	0.0000000			30-130	Fail	Q08
3&4-Methylphenol (m&p-Cresol)	P20-De39397	NCP	%	94			30-130	Pass	
4-Nitrophenol	M20-De40808	NCP	%	32			30-130	Pass	
Dinoseb	P20-De39397	NCP	%	117			30-130	Pass	
Phenol	P20-De39397	NCP	%	74			30-130	Pass	
Spike - % Recovery									
				Result 1					
Total Suspended Solids Dried at 103–105°C	S20-De49841	CP	%	91			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
				Result 1					
Ferrous Iron - Fe2+	S20-De49845	CP	%	105			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S20-De49846	CP	%	102			75-125	Pass	
Cadmium (filtered)	S20-De49846	CP	%	102			75-125	Pass	
Chromium (filtered)	S20-De49846	CP	%	96			75-125	Pass	
Copper (filtered)	S20-De49846	CP	%	95			75-125	Pass	
Lead (filtered)	S20-De49846	CP	%	99			75-125	Pass	
Manganese (filtered)	S20-De49846	CP	%	95			75-125	Pass	
Mercury (filtered)	S20-De49846	CP	%	104			75-125	Pass	
Nickel (filtered)	S20-De49846	CP	%	102			75-125	Pass	
Zinc (filtered)	S20-De49846	CP	%	100			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S20-De49760	NCP	%	100			75-125	Pass	
Cadmium	S20-De49760	NCP	%	99			75-125	Pass	
Chromium	S20-De49760	NCP	%	100			75-125	Pass	
Copper	S20-De49760	NCP	%	95			75-125	Pass	
Lead	S20-De49760	NCP	%	99			75-125	Pass	
Mercury	S20-De49760	NCP	%	106			75-125	Pass	
Nickel	S20-De49760	NCP	%	100			75-125	Pass	
Zinc	S20-De49760	NCP	%	96			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S20-De43771	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S20-De43771	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S20-De43771	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S20-De43771	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S20-De43771	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S20-De43771	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S20-De43771	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S20-De43771	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S20-De43771	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Naphthalene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Phenanthrene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	S20-De45406	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	S20-De49833	CP	mg/L	< 0.004	< 0.004	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-De49833	CP	mg/L	0.006	0.006	<1	30%	Pass	
Arsenic (filtered)	S20-De49833	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S20-De49833	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Cadmium (filtered)	S20-De49833	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S20-De49833	CP	mg/L	0.023	0.025	10	30%	Pass	
Chromium (filtered)	S20-De49833	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S20-De49833	CP	mg/L	0.018	0.019	9.0	30%	Pass	
Copper (filtered)	S20-De49833	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S20-De49833	CP	mg/L	0.028	0.030	6.0	30%	Pass	
Lead (filtered)	S20-De49833	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese	S20-De49833	CP	mg/L	0.36	0.39	8.0	30%	Pass	
Manganese (filtered)	S20-De49833	CP	mg/L	0.15	0.16	2.0	30%	Pass	
Mercury	S20-De49833	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Mercury (filtered)	S20-De49833	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S20-De49833	CP	mg/L	0.015	0.017	8.0	30%	Pass	
Nickel (filtered)	S20-De49833	CP	mg/L	0.009	0.009	3.0	30%	Pass	
Zinc	S20-De49833	CP	mg/L	0.063	0.066	4.0	30%	Pass	
Zinc (filtered)	S20-De49833	CP	mg/L	0.015	0.015	1.0	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S20-De49833	CP	mg/L	12	12	1.0	30%	Pass	
Magnesium	S20-De49833	CP	mg/L	12	13	5.0	30%	Pass	
Potassium	S20-De49833	CP	mg/L	4.1	4.2	3.0	30%	Pass	
Sodium	S20-De49833	CP	mg/L	56	59	4.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180°C ± 2°C	S20-De49835	CP	mg/L	430	470	8.0	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S20-De45406	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dichlorophenol	S20-De45406	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4.5-Trichlorophenol	S20-De45406	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	S20-De45406	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	S20-De45406	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
4-Chloro-3-methylphenol	S20-De45406	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Pentachlorophenol	S20-De45406	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Tetrachlorophenols - Total	S20-De45406	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S20-De45406	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S20-De45406	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S20-De45406	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Nitrophenol	S20-De45406	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dimethylphenol	S20-De45406	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	S20-De45406	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
3&4-Methylphenol (m&p-Cresol)	S20-De45406	NCP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
4-Nitrophenol	S20-De45406	NCP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Dinoseb	S20-De45406	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Phenol	S20-De45406	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Suspended Solids Dried at 103–105°C	S20-De49841	CP	mg/L	89	89	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S20-De49843	CP	mg/L	0.10	0.10	6.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S20-De49843	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S20-De49843	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S20-De49843	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S20-De49843	CP	mg/L	0.004	0.004	<1	30%	Pass	
Lead (filtered)	S20-De49843	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	S20-De49843	CP	mg/L	0.18	0.18	1.0	30%	Pass	
Mercury (filtered)	S20-De49843	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S20-De49843	CP	mg/L	0.003	0.004	4.0	30%	Pass	
Zinc (filtered)	S20-De49843	CP	mg/L	0.040	0.039	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S20-De49845	CP	mg/L	20	21	4.0	30%	Pass	
Ferrous Iron - Fe2+	S20-De49845	CP	mg/L	3.2	3.2	<1	30%	Pass	
Sulphate (as SO4)	S20-De49845	CP	mg/L	240	240	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S20-De51028	NCP	mg/L	0.003	0.003	4.0	30%	Pass	
Cadmium	S20-De51028	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S20-De51028	NCP	mg/L	0.002	0.002	15	30%	Pass	
Copper	S20-De51028	NCP	mg/L	0.003	0.003	1.0	30%	Pass	
Lead	S20-De51028	NCP	mg/L	0.001	0.001	1.0	30%	Pass	
Mercury	S20-De51028	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S20-De51028	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S20-De51028	NCP	mg/L	0.006	0.009	36	30%	Fail	Q15

Comments

This report has been revised (V2) to correct Cyanide LORs.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Elvis Dsouza	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Charl Du Preez	Senior Analyst-Inorganic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	**Contact Name :** Terry Nham / Jake Vickers	**Purchase Order :** 2127234	**COC Number :**
Office Address :	**Project Manager :** Henry Luo	**PROJECT Number :** 2127234	**Eurofins | mgt quote ID :** GHD Rates 2020/2021
Level 15, 133 Castlereagh Street, Sydney NSW 2000	**Email for results :** terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	**PROJECT Name :** Central	**Data output format:** ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number: S0278

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Major Anions and Cations + Hardness		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)				
1	CSM_BH02	27/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
2	CSM_BH04	27/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
3	CSM_BH06	27/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
4	CSM_BH08	28/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
5	CSM_BH10S	28/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
6	SRT_BH047	29/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
7	SRT_BH052	29/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
8	GASW_BH10	27/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
9	GASW_BH11	28/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
10	GASW_BH23	28/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
11	GASW_BH25A	28/01/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
12	QC01	27/01/21	Water	X	X																			
13	RB01	28/01/21	Water																	X				
14	Trip Blank	27/01/21	Water																X					
15	Trip Spike	27/01/21	Water																X					
16																								

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

	500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	Sample comments:
1	1		4		2	2			
2	1		4		2	2			
3	1		4		2	2			
4	1		4		2	2			
5	1		4		2	2			
6	1		4		2	2			
7	1		4		2	2			
8	1		4		2	2			
9	1		4		2	2			
10	1		4		2	2			
11	1		4		2	2			
12			1		2	2			
13			1						
14					2				
15					2				
16									

Laboratory Staff

Relinquished By: Terry Nham - GHD
Date & Time : 29/01/2021
Signature: TN

Received By: M BIRKETT
Date & Time : 29/01/21 2:42 pm
Signature:

Turn around time

1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment

☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 1-3°C

Report number: 770782

#AU04_Enviro_Sample_NSW

From: Terry Nham <Terry.Nham@ghd.com>
Sent: Monday, 1 February 2021 8:13 PM
To: #AU04_Enviro_Sample_NSW
Cc: Henry Luo
Subject: RE: ATTENTION: Eurofins Sample Receipt Advice - Report 770782 : Site CENTRAL (2127234)

Follow Up Flag: Follow up
Flag Status: Completed

Hi Melissa,
Thanks for the SRA, would we be able to log the QC sample as "QC02" as per the bottle, my mistake on the COC!

Regards,

Terry

Terry Nham
Environmental Scientist
Contamination Assessment and Remediation

GHD
T: 61 2 9239 7393 | F: 61 2 9239 7199 | V: 217393 | M: 0403 251 883 | E: terry.nham@ghd.com
Level 15, 133 Castlereagh St Sydney NSW 2000 Australia | http://www.ghd.com/
Water | Energy & Resources | Environment | Property & Buildings | Transportation

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From: EnviroSampleNSW@eurofins.com <EnviroSampleNSW@eurofins.com>
Sent: Monday, 1 February 2021 7:37 PM
To: Henry Luo <Henry.Luo@ghd.com>
Cc: Jake Vickers <Jake.Vickers@ghd.com>; Terry Nham <Terry.Nham@ghd.com>
Subject: ATTENTION: Eurofins Sample Receipt Advice - Report 770782 : Site CENTRAL (2127234)

Dear Valued Client,

QC01 received as QC02, logged as per COC.

Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your Eurofins | mgt Analytical Services Manager as soon as possible to make certain that they get changed.

Regards

Melissa Birkett
Sample Receipt

Eurofins | Environmental Testing
Unit F3, Parkview Building
16 Mars Road
LANE COVE WEST NSW 2066

AUSTRALIA
Phone: +61 02 9900 8421
Email: EnviroSampleNSW@eurofins.com
Website:environment.eurofins.com.au

EnviroNote 1108 - Emissions from Stationary Sources
EnviroNote 1103 - NATA Accreditation for Dioxins

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	GHD Pty Ltd NSW
Contact name:	Henry Luo
Project name:	CENTRAL
Project ID:	2127234
Turnaround time:	5 Day
Date/Time received	Jan 29, 2021 2:42 PM
Eurofins reference	770782

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 1.3 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Elvis Dsouza on phone : or by email: ElvisDsouza@eurofins.com

Results will be delivered electronically via email to Henry Luo - henry.luo@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Henry Luo**

Report **770782-W-V2**
Project name CENTRAL
Project ID 2127234
Received Date Jan 29, 2021

Client Sample ID			**CSM_BH02**	**CSM_BH04**	**CSM_BH06**	**CSM_BH08**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-Fe01174**	**S21-Fe01175**	**S21-Fe01176**	**S21-Fe01177**
Date Sampled			**Jan 27, 2021**	**Jan 27, 2021**	**Jan 27, 2021**	**Jan 28, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	81	82	80	74
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01174	S21-Fe01175	S21-Fe01176	S21-Fe01177
Date Sampled			Jan 27, 2021	Jan 27, 2021	Jan 27, 2021	Jan 28, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	62	52	88	63
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	110	91	86	58
p-Terphenyl-d14 (surr.)	1	%	86	63	64	88
Ammonia (as N)	0.01	mg/L	< 0.01	< 0.01	0.04	0.02
Chloride	1	mg/L	51	110	480	75
Cyanide (total)	0.004	mg/L	0.010	0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.05	mg/L	< 0.05	4.0	6.3	4.3
pH (at 25 °C)	0.1	pH Units	7.1	7.1	6.6	7.2
Sulphate (as SO4)	5	mg/L	45	53	44	57
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	330	320	630	300

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01174	S21-Fe01175	S21-Fe01176	S21-Fe01177
Date Sampled			Jan 27, 2021	Jan 27, 2021	Jan 27, 2021	Jan 28, 2021
Test/Reference	LOR	Unit				
Total Suspended Solids Dried at 103–105°C	1	mg/L	740	190	43	37
Hardness mg equivalent CaCO3/L	5	mg/L	240	85	240	78
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	160	110	170	99
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	160	110	170	99
Alkali Metals						
Calcium	0.5	mg/L	36	8.2	39	10
Magnesium	0.5	mg/L	36	16	34	13
Potassium	0.5	mg/L	< 5	< 5	< 5	< 5
Sodium	0.5	mg/L	62	85	110	75
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	0.002	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	0.004	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	0.002	0.15
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.004
Manganese (filtered)	0.005	mg/L	0.13	0.46	0.28	0.29
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.003	0.019	0.017	0.028
Zinc (filtered)	0.005	mg/L	0.015	0.034	0.053	0.18

Client Sample ID			CSM_BH10S	SRT_BH047	SRT_BH052	GASW_BH10
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01178	S21-Fe01179	S21-Fe01180	S21-Fe01181
Date Sampled			Jan 28, 2021	Jan 29, 2021	Jan 29, 2021	Jan 27, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	0.07
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.27
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	88	86	82	90
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	0.09

Client Sample ID			CSM_BH10S	SRT_BH047	SRT_BH052	GASW_BH10
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01178	S21-Fe01179	S21-Fe01180	S21-Fe01181
Date Sampled			Jan 28, 2021	Jan 29, 2021	Jan 29, 2021	Jan 27, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	0.09
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.2
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.29
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	76	98	86	108
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Client Sample ID			CSM_BH10S	SRT_BH047	SRT_BH052	GASW_BH10
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01178	S21-Fe01179	S21-Fe01180	S21-Fe01181
Date Sampled			Jan 28, 2021	Jan 29, 2021	Jan 29, 2021	Jan 27, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	80	54	77	128
p-Terphenyl-d14 (surr.)	1	%	58	73	89	141
Ammonia (as N)	0.01	mg/L	< 0.01	0.02	< 0.01	< 0.01
Chloride	1	mg/L	22	43	46	200
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.05	mg/L	< 0.05	< 0.05	< 0.05	1.2
pH (at 25 °C)	0.1	pH Units	6.2	7.4	7.6	7.4
Sulphate (as SO4)	5	mg/L	73	29	55	< 5
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	210	300	250	840
Total Suspended Solids Dried at 103–105°C	1	mg/L	340	36	830	2600
Hardness mg equivalent CaCO3/L	5	mg/L	43	120	81	510
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	26	78	110	590
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	26	78	110	590
Alkali Metals						
Calcium	0.5	mg/L	5.8	32	24	110
Magnesium	0.5	mg/L	7.0	11	< 5	60
Potassium	0.5	mg/L	< 5	< 5	< 5	12
Sodium	0.5	mg/L	36	29	50	140
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.001	0.024	0.001	0.002
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.58	0.013	< 0.005	0.17
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.002	0.005	< 0.001	0.015
Zinc (filtered)	0.005	mg/L	0.12	0.11	0.027	0.024

Client Sample ID			GASW_BH11	GASW_BH23	GASW_BH25A	QC02
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01182	S21-Fe01183	S21-Fe01184	S21-Fe01185
Date Sampled			Jan 28, 2021	Jan 28, 2021	Jan 28, 2021	Jan 27, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	0.10	0.03	< 0.02
TRH C10-C14	0.05	mg/L	0.17	0.08	0.10	< 0.05
TRH C15-C28	0.1	mg/L	0.3	0.2	0.2	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	0.47	0.28	0.3	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	0.065	0.010	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	0.007	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	81	79	83	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	0.10	0.04	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	0.04	0.02	< 0.02
TRH >C10-C16	0.05	mg/L	0.25	0.11	0.11	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	0.25	0.11	0.11	< 0.05
TRH >C16-C34	0.1	mg/L	0.2	0.2	0.2	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	0.45	0.31	0.31	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	-
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
Phenol-d6 (surr.)	1	%	72	72	69	-
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-

Client Sample ID			GASW_BH11	GASW_BH23	GASW_BH25A	QC02
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01182	S21-Fe01183	S21-Fe01184	S21-Fe01185
Date Sampled			Jan 28, 2021	Jan 28, 2021	Jan 28, 2021	Jan 27, 2021
Test/Reference	LOR	Unit				
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	59	63	65	60
p-Terphenyl-d14 (surr.)	1	%	107	104	104	55
Ammonia (as N)	0.01	mg/L	0.06	0.04	< 0.01	-
Chloride	1	mg/L	34	55	67	-
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	-
Ferrous Iron - Fe2+	0.05	mg/L	4.1	0.57	< 0.05	-
pH (at 25 °C)	0.1	pH Units	8.0	8.2	8.2	-
Sulphate (as SO4)	5	mg/L	47	160	60	-
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	350	550	290	-
Total Suspended Solids Dried at 103–105°C	1	mg/L	1600	8.4	57	-
Hardness mg equivalent CaCO3/L	5	mg/L	130	340	160	-
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	150	230	120	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	-
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	-
Total Alkalinity (as CaCO3)	20	mg/L	150	230	120	-
Alkali Metals						
Calcium	0.5	mg/L	38	120	50	-
Magnesium	0.5	mg/L	7.9	10.0	< 5	-
Potassium	0.5	mg/L	< 5	9.5	5.4	-
Sodium	0.5	mg/L	44	22	29	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	0.005	< 0.001	0.003	< 0.001
Cadmium (filtered)	0.0002	mg/L	0.0006	0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	0.001	0.002
Copper (filtered)	0.001	mg/L	0.14	0.018	0.015	< 0.001

Client Sample ID			GASW_BH11	GASW_BH23	GASW_BH25A	QC02
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe01182	S21-Fe01183	S21-Fe01184	S21-Fe01185
Date Sampled			Jan 28, 2021	Jan 28, 2021	Jan 28, 2021	Jan 27, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Lead (filtered)	0.001	mg/L	0.006	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.29	0.20	0.006	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.031	0.002	0.001	0.003
Zinc (filtered)	0.005	mg/L	0.30	0.22	0.017	0.011

Client Sample ID			RB01	TRIP BLANK	TRIP SPIKE
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S21-Fe01186	S21-Fe01187	S21-Fe01188
Date Sampled			Jan 28, 2021	Jan 27, 2021	Jan 27, 2021
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	-	< 0.02	-
BTEX					
Benzene	0.001	mg/L	-	< 0.001	-
Toluene	0.001	mg/L	-	< 0.001	-
Ethylbenzene	0.001	mg/L	-	< 0.001	-
m&p-Xylenes	0.002	mg/L	-	< 0.002	-
o-Xylene	0.001	mg/L	-	< 0.001	-
Xylenes - Total*	0.003	mg/L	-	< 0.003	-
4-Bromofluorobenzene (surr.)	1	%	-	84	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	-	< 0.01	-
TRH C6-C10	0.02	mg/L	-	< 0.02	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	-	< 0.02	-
TRH C6-C10	1	%	-	-	71
Heavy Metals					
Arsenic	0.001	mg/L	< 0.001	-	-
Cadmium	0.0002	mg/L	< 0.0002	-	-
Chromium	0.001	mg/L	< 0.001	-	-
Copper	0.001	mg/L	< 0.001	-	-
Lead	0.001	mg/L	< 0.001	-	-
Mercury	0.0001	mg/L	< 0.0001	-	-
Nickel	0.001	mg/L	< 0.001	-	-
Zinc	0.005	mg/L	< 0.005	-	-
Total Recoverable Hydrocarbons					
Naphthalene	1	%	-	-	83
TRH C6-C9	1	%	-	-	75
BTEX					
Benzene	1	%	-	-	91
Ethylbenzene	1	%	-	-	83
m&p-Xylenes	1	%	-	-	90
o-Xylene	1	%	-	-	85
Toluene	1	%	-	-	94
Xylenes - Total	1	%	-	-	86
4-Bromofluorobenzene (surr.)	1	%	-	-	77

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Feb 05, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Melbourne	Feb 02, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Feb 02, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Melbourne	Feb 02, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Feb 05, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Melbourne	Feb 02, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Feb 05, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	Feb 05, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Melbourne	Feb 05, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Melbourne	Feb 05, 2021	7 Days
- Method: TRH C6-C36 (Silica Gel Cleanup) - MGT 100A			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Feb 05, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Ammonia (as N)	Melbourne	Feb 02, 2021	28 Days
- Method: APHA 4500-NH3 Ammonia Nitrogen by FIA			
Cyanide (total)	Melbourne	Feb 02, 2021	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Ferrous Iron - Fe2+	Melbourne	Feb 02, 2021	7 Days
- Method: LTM-INO-4190 Ferrous Iron in Water by Discrete Analyser			
pH (at 25 °C)	Melbourne	Feb 02, 2021	0 Hours
- Method: LTM-GEN-7090 pH in water by ISE			
Total Suspended Solids Dried at 103–105°C	Melbourne	Feb 02, 2021	7 Days
- Method: LTM-INO-4070 Analysis of Suspended Solids in Water by Gravimetry			
Metals M8	Melbourne	Feb 02, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals (filtered)	Melbourne	Feb 02, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Eurofins Suite B11E: Cl/SO4/Alkalinity			
Chloride	Melbourne	Feb 02, 2021	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Sulphate (as SO4)	Melbourne	Feb 02, 2021	28 Days
- Method: LTM-INO-4110 Sulfate by Discrete Analyser			
Alkalinity (speciated)	Melbourne	Feb 02, 2021	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Melbourne	Feb 02, 2021	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			
Eurofins Suite B11D: Na/K/Ca/Mg and Hardness			
Hardness mg equivalent CaCO3/L	Melbourne	Feb 02, 2021	28 Days
- Method: APHA 2340B Hardness by Calculation			

Description	Testing Site	Extracted	Holding Time
Alkali Metals	Melbourne	Feb 02, 2021	180 Days
- Method: LTM-MET-3010 Alkali Metals Sulfur Silicon Phosphorus by ICP-AES			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name:	GHD Pty Ltd NSW	**Order No.:**	2127234	**Received:**	Jan 29, 2021 2:42 PM
Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	**Report #:**	770782	**Due:**	Feb 5, 2021
		Phone:	02 9239 7100	**Priority:**	5 Day
		Fax:	02 9239 7199	**Contact Name:**	Henry Luo
Project Name:	CENTRAL				
Project ID:	2127234				

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Ammonia (as N)	Cyanide (total)	Ferrous Iron - Fe2+	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217																					
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
1	CSM_BH02	Jan 27, 2021		Water	S21-Fe01174	X	X	X	X	X	X		X	X	X		X	X		X	X
2	CSM_BH04	Jan 27, 2021		Water	S21-Fe01175	X	X	X	X	X	X		X	X	X		X	X		X	X
3	CSM_BH06	Jan 27, 2021		Water	S21-Fe01176	X	X	X	X	X	X		X	X	X		X	X		X	X
4	CSM_BH08	Jan 28, 2021		Water	S21-Fe01177	X	X	X	X	X	X		X	X	X		X	X		X	X
5	CSM_BH10S	Jan 28, 2021		Water	S21-Fe01178	X	X	X	X	X	X		X	X	X		X	X		X	X
6	SRT_BH047	Jan 29, 2021		Water	S21-Fe01179	X	X	X	X	X	X		X	X	X		X	X		X	X
7	SRT_BH052	Jan 29, 2021		Water	S21-Fe01180	X	X	X	X	X	X		X	X	X		X	X		X	X
8	GASW_BH10	Jan 27, 2021		Water	S21-Fe01181	X	X	X	X	X	X		X	X	X		X	X		X	X
9	GASW_BH11	Jan 28, 2021		Water	S21-Fe01182	X	X	X	X	X	X		X	X	X		X	X		X	X

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name: GHD Pty Ltd NSW
Address: Level 15, 133 Castlereagh Street
Sydney
NSW 2000

Project Name: CENTRAL
Project ID: 2127234

Order No.: 2127234
Report #: 770782
Phone: 02 9239 7100
Fax: 02 9239 7199

Received: Jan 29, 2021 2:42 PM
Due: Feb 5, 2021
Priority: 5 Day
Contact Name: Henry Luo

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Ammonia (as N)	Cyanide (total)	Ferrous Iron - Fe2+	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	BTEXN and Volatile TRH	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217																					
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
10	GASW_BH23	Jan 28, 2021		Water	S21-Fe01183	X	X	X	X	X	X		X	X	X		X	X		X	X
11	GASW_BH25A	Jan 28, 2021		Water	S21-Fe01184	X	X	X	X	X	X		X	X	X		X	X		X	X
12	QC02	Jan 27, 2021		Water	S21-Fe01185										X					X	
13	RB01	Jan 28, 2021		Water	S21-Fe01186							X									
14	TRIP BLANK	Jan 27, 2021		Water	S21-Fe01187											X					
15	TRIP SPIKE	Jan 27, 2021		Water	S21-Fe01188														X		
Test Counts						11	11	11	11	11	11	1	11	11	12	1	11	11	1	12	11

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

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

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH C15-C28 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C29-C36 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	mg/L	< 0.00001			0.00001	Pass	
Acenaphthylene	mg/L	< 0.00001			0.00001	Pass	
Anthracene	mg/L	< 0.00001			0.00001	Pass	
Benz(a)anthracene	mg/L	< 0.00001			0.00001	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00001			0.00001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Chrysene	mg/L	< 0.00001			0.00001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00001			0.00001	Pass	
Fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Fluorene	mg/L	< 0.00001			0.00001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00001			0.00001	Pass	
Naphthalene	mg/L	< 0.00001			0.00001	Pass	
Phenanthrene	mg/L	< 0.00001			0.00001	Pass	
Pyrene	mg/L	< 0.00001			0.00001	Pass	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Chloride	mg/L	< 1			1	Pass	
Cyanide (total)	mg/L	< 0.004			0.004	Pass	
Ferrous Iron - Fe2+	mg/L	< 0.05			0.05	Pass	
Sulphate (as SO4)	mg/L	< 5			5	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	mg/L	< 10			10	Pass	
Total Suspended Solids Dried at 103–105°C	mg/L	< 1			1	Pass	
Hardness mg equivalent CaCO3/L	mg/L	BLK			5	N/A	
Method Blank							
Alkalinity (speciated)							
Bicarbonate Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Carbonate Alkalinity (as CaCO3)	mg/L	< 10			10	Pass	
Hydroxide Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Total Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	104			70-130	Pass	
TRH C10-C14	%	104			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
BTEX							
Benzene	%	96			70-130	Pass	
Toluene	%	91			70-130	Pass	
Ethylbenzene	%	84			70-130	Pass	
m&p-Xylenes	%	91			70-130	Pass	
Xylenes - Total*	%	90			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	90			70-130	Pass	
Naphthalene	%	78			70-130	Pass	
TRH C6-C10	%	103			70-130	Pass	
TRH C6-C10	%	87			70-130	Pass	
TRH >C10-C16	%	110			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	76			30-130	Pass	
2.4-Dichlorophenol	%	81			30-130	Pass	
2.4.5-Trichlorophenol	%	88			30-130	Pass	
2.4.6-Trichlorophenol	%	87			30-130	Pass	
2.6-Dichlorophenol	%	81			30-130	Pass	
4-Chloro-3-methylphenol	%	87			30-130	Pass	
Pentachlorophenol	%	91			30-130	Pass	
Tetrachlorophenols - Total	%	52			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	86			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	118			30-130	Pass	
2-Methylphenol (o-Cresol)	%	75			30-130	Pass	
2-Nitrophenol	%	77			30-130	Pass	
2.4-Dimethylphenol	%	74			30-130	Pass	
2.4-Dinitrophenol	%	55			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	94			30-130	Pass	
4-Nitrophenol	%	80			30-130	Pass	
Dinoseb	%	68			30-130	Pass	
Phenol	%	57			30-130	Pass	
LCS - % Recovery							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	%	108			70-130	Pass	
LCS - % Recovery							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	%	108			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	92			70-130	Pass	
Acenaphthylene	%	101			70-130	Pass	
Anthracene	%	76			70-130	Pass	
Benz(a)anthracene	%	94			70-130	Pass	
Benzo(a)pyrene	%	103			70-130	Pass	
Benzo(b&j)fluoranthene	%	92			70-130	Pass	
Benzo(g.h.i)perylene	%	100			70-130	Pass	
Benzo(k)fluoranthene	%	110			70-130	Pass	
Chrysene	%	107			70-130	Pass	
Dibenz(a.h)anthracene	%	106			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluoranthene	%	95			70-130	Pass	
Fluorene	%	97			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	102			70-130	Pass	
Naphthalene	%	77			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	95			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	115			70-130	Pass	
Chloride	%	111			70-130	Pass	
Cyanide (total)	%	101			70-130	Pass	
Ferrous Iron - Fe2+	%	92			70-130	Pass	
Sulphate (as SO4)	%	112			70-130	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	%	100			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	%	101			70-130	Pass	
LCS - % Recovery							
Alkalinity (speciated)							
Carbonate Alkalinity (as CaCO3)	%	124			70-130	Pass	
Total Alkalinity (as CaCO3)	%	127			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	95			80-120	Pass	
Magnesium	%	96			80-120	Pass	
Potassium	%	98			80-120	Pass	
Sodium	%	85			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	96			80-120	Pass	
Cadmium	%	98			80-120	Pass	
Chromium	%	89			80-120	Pass	
Copper	%	97			80-120	Pass	
Lead	%	97			80-120	Pass	
Mercury	%	86			80-120	Pass	
Nickel	%	97			80-120	Pass	
Zinc	%	101			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S21-Fe04525	NCP	%	91			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S21-Fe01175	CP	%	87			75-125	Pass	
Magnesium	S21-Fe01175	CP	%	96			75-125	Pass	
Potassium	S21-Fe01175	CP	%	96			75-125	Pass	
Sodium	S21-Fe01175	CP	%	111			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S21-Fe01177	CP	%	104			75-125	Pass	
Cadmium (filtered)	S21-Fe01177	CP	%	100			75-125	Pass	
Chromium (filtered)	S21-Fe01177	CP	%	96			75-125	Pass	
Copper (filtered)	S21-Fe01177	CP	%	81			75-125	Pass	
Lead (filtered)	S21-Fe01177	CP	%	102			75-125	Pass	
Manganese (filtered)	S21-Fe01177	CP	%	68			75-125	Fail	Q08
Mercury (filtered)	S21-Fe01177	CP	%	74			75-125	Fail	Q08
Nickel (filtered)	S21-Fe01177	CP	%	97			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc (filtered)	S21-Fe01177	CP	%	80			75-125	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	S21-Fe01179	CP	%	99			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	S21-Fe01179	CP	%	101			70-130	Pass	
Spike - % Recovery									
TRH - 2013 NEPM Fractions (after silica gel clean-up)				Result 1					
TRH >C10-C16 (after silica gel clean-up)	S21-Fe01179	CP	%	96			70-130	Pass	
Spike - % Recovery									
TRH - 1999 NEPM Fractions (after silica gel clean-up)				Result 1					
TRH C10-C14 (after silica gel clean-up)	S21-Fe01179	CP	%	94			70-130	Pass	
Spike - % Recovery									
				Result 1					
Total Suspended Solids Dried at 103–105°C	S21-Fe01180	CP	%	109			70-130	Pass	
Spike - % Recovery									
Phenols (Halogenated)				Result 1					
2-Chlorophenol	S21-Fe01181	CP	%	91			30-130	Pass	
2.4-Dichlorophenol	S21-Fe01181	CP	%	88			30-130	Pass	
2.4.5-Trichlorophenol	S21-Fe01181	CP	%	88			30-130	Pass	
2.4.6-Trichlorophenol	S21-Fe01181	CP	%	80			30-130	Pass	
2.6-Dichlorophenol	S21-Fe01181	CP	%	88			30-130	Pass	
4-Chloro-3-methylphenol	S21-Fe01181	CP	%	87			30-130	Pass	
Pentachlorophenol	S21-Fe01181	CP	%	76			30-130	Pass	
Tetrachlorophenols - Total	S21-Fe01181	CP	%	59			30-130	Pass	
Spike - % Recovery									
Phenols (non-Halogenated)				Result 1					
2-Cyclohexyl-4.6-dinitrophenol	S21-Fe01181	CP	%	104			30-130	Pass	
2-Methyl-4.6-dinitrophenol	S21-Fe01181	CP	%	101			30-130	Pass	
2-Methylphenol (o-Cresol)	S21-Fe01181	CP	%	82			30-130	Pass	
2-Nitrophenol	S21-Fe01181	CP	%	89			30-130	Pass	
2.4-Dimethylphenol	S21-Fe01181	CP	%	58			30-130	Pass	
2.4-Dinitrophenol	S21-Fe01181	CP	%	73			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	S21-Fe01181	CP	%	95			30-130	Pass	
4-Nitrophenol	S21-Fe01181	CP	%	83			30-130	Pass	
Dinoseb	S21-Fe01181	CP	%	82			30-130	Pass	
Phenol	S21-Fe01181	CP	%	77			30-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1					
Acenaphthene	S21-Fe01181	CP	%	84			70-130	Pass	
Acenaphthylene	S21-Fe01181	CP	%	92			70-130	Pass	
Anthracene	S21-Fe01181	CP	%	80			70-130	Pass	
Benz(a)anthracene	S21-Fe01181	CP	%	91			70-130	Pass	
Benzo(a)pyrene	S21-Fe01181	CP	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	S21-Fe01181	CP	%	94			70-130	Pass	
Benzo(g.h.i)perylene	S21-Fe01181	CP	%	99			70-130	Pass	
Benzo(k)fluoranthene	S21-Fe01181	CP	%	94			70-130	Pass	
Chrysene	S21-Fe01181	CP	%	99			70-130	Pass	
Dibenz(a.h)anthracene	S21-Fe01181	CP	%	102			70-130	Pass	
Fluoranthene	S21-Fe01181	CP	%	90			70-130	Pass	
Fluorene	S21-Fe01181	CP	%	90			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Indeno(1.2.3-cd)pyrene	S21-Fe01181	CP	%	101			70-130	Pass	
Naphthalene	S21-Fe01181	CP	%	85			70-130	Pass	
Phenanthrene	S21-Fe01181	CP	%	88			70-130	Pass	
Pyrene	S21-Fe01181	CP	%	89			70-130	Pass	
Spike - % Recovery									
Alkalinity (speciated)				Result 1					
Bicarbonate Alkalinity (as CaCO3)	B21-Ja36915	NCP	%	100			70-130	Pass	
Total Alkalinity (as CaCO3)	B21-Ja36915	NCP	%	100			70-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	S21-Fe01184	CP	%	85			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	M21-Ja36462	NCP	%	102			75-125	Pass	
Cadmium	M21-Ja36462	NCP	%	102			75-125	Pass	
Chromium	M21-Ja36462	NCP	%	97			75-125	Pass	
Copper	M21-Ja36462	NCP	%	103			75-125	Pass	
Lead	M21-Ja36462	NCP	%	104			75-125	Pass	
Mercury	M21-Ja36462	NCP	%	87			75-125	Pass	
Nickel	M21-Ja36462	NCP	%	103			75-125	Pass	
Zinc	M21-Ja36462	NCP	%	104			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S21-Ja36084	NCP	mg/L	0.14	0.13	7.0	30%	Pass	
Chloride	M21-Ja35648	NCP	mg/L	**	130	26	30%	Pass	
Cyanide (total)	M21-Fe06462	NCP	mg/L	0.031	0.020	42	30%	Fail	Q15
Ferrous Iron - Fe2+	B21-Ja36901	NCP	mg/L	0.06	0.05	9.0	30%	Pass	
pH (at 25 °C)	M21-Fe08002	NCP	pH Units	6.8	6.8	pass	30%	Pass	
Sulphate (as SO4)	M21-Ja35648	NCP	mg/L	420	420	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180°C ± 2°C	S21-Fe01175	CP	mg/L	320	320	1.3	30%	Pass	
Total Suspended Solids Dried at 103–105°C	S21-Fe01175	CP	mg/L	190	220	13	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S21-Fe01175	CP	mg/L	8.2	8.3	1.0	30%	Pass	
Magnesium	S21-Fe01175	CP	mg/L	16	16	1.0	30%	Pass	
Potassium	S21-Fe01175	CP	mg/L	< 5	< 5	<1	30%	Pass	
Sodium	S21-Fe01175	CP	mg/L	85	84	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M21-Ja36243	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M21-Ja36243	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	M21-Ja36243	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	M21-Ja36243	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	M21-Ja36243	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	M21-Ja36243	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	M21-Ja36243	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M21-Ja36243	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	M21-Ja36243	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Alkalinity (speciated)				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	S21-Fe01177	CP	mg/L	99	100	3.0	30%	Pass	
Carbonate Alkalinity (as CaCO3)	S21-Fe01177	CP	mg/L	< 10	< 10	<1	30%	Pass	
Hydroxide Alkalinity (as CaCO3)	S21-Fe01177	CP	mg/L	< 20	< 20	<1	30%	Pass	
Total Alkalinity (as CaCO3)	S21-Fe01177	CP	mg/L	99	100	3.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S21-Fe01177	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S21-Fe01177	CP	mg/L	0.0002	0.0002	13	30%	Pass	
Chromium (filtered)	S21-Fe01177	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S21-Fe01177	CP	mg/L	0.15	0.15	2.0	30%	Pass	
Lead (filtered)	S21-Fe01177	CP	mg/L	0.004	0.004	3.0	30%	Pass	
Manganese (filtered)	S21-Fe01177	CP	mg/L	0.29	0.28	1.0	30%	Pass	
Mercury (filtered)	S21-Fe01177	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S21-Fe01177	CP	mg/L	0.028	0.027	2.0	30%	Pass	
Zinc (filtered)	S21-Fe01177	CP	mg/L	0.18	0.18	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S21-Fe01178	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S21-Fe01178	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
TRH - 2013 NEPM Fractions (after silica gel clean-up)				Result 1	Result 2	RPD			
TRH >C10-C16 (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34 (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40 (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
TRH - 1999 NEPM Fractions (after silica gel clean-up)				Result 1	Result 2	RPD			
TRH C10-C36 (Total) (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C10-C14 (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28 (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36 (after silica gel clean-up)	S21-Fe01178	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S21-Fe01180	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dichlorophenol	S21-Fe01180	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4.5-Trichlorophenol	S21-Fe01180	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	S21-Fe01180	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	S21-Fe01180	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
4-Chloro-3-methylphenol	S21-Fe01180	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Pentachlorophenol	S21-Fe01180	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Tetrachlorophenols - Total	S21-Fe01180	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	

Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S21-Fe01180	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S21-Fe01180	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S21-Fe01180	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Nitrophenol	S21-Fe01180	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dimethylphenol	S21-Fe01180	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	S21-Fe01180	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S21-Fe01180	CP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
4-Nitrophenol	S21-Fe01180	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Dinoseb	S21-Fe01180	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Phenol	S21-Fe01180	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Naphthalene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Phenanthrene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	S21-Fe01180	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Suspended Solids Dried at 103–105°C	S21-Fe01180	CP	mg/L	830	650	24	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	M21-Ja36462	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	M21-Ja36462	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	M21-Ja36462	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	M21-Ja36462	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	M21-Ja36462	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	M21-Ja36462	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	M21-Ja36462	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	M21-Ja36462	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Elvis Dsouza	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	**Contact Name :** Terry Nham / Jake Vickers	**Purchase Order :** 2127234	**COC Number :**
Office Address :	**Project Manager :** Henry Luo	**PROJECT Number :** 2127234	**Eurofins | mgt quote ID :** GHD Rates 2020/2021
Level 15, 133 Castlereagh Street, Sydney NSW 2000	**Email for results :** terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	**PROJECT Name :** Central	**Data output format:** ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number: S0278

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Cation (B11D) and Anion (B11E)		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)				
1	CSM_BH02	18/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
2	CSM_BH04	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
3	CSM_BH06	18/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
4																								
5	CSM_BH10S	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
6	SRT_BH047	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
7	SRT_BH052	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
8	GASW_BH10	18/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
9	GASW_BH11	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
10	GASW_BH23	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
11	GASW_BH25A	17/02/21	Water	X	X	X		X	X	X	X		X	X	X	X	X							
12	QC01	17/02/21	Water	X	X																			
13	RB01	17/02/21	Water																	X				
14	Trip Blank	17/02/21	Water																X					
15	Trip Spike	17/02/21	Water																X					
16	SRT_BH050	17/02/21	Water	X	X	X			X	X	X		X	X	X									

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

	500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	Sample comments:
1	1		4		2	2			
2	1		4		2	2			
3	1		4		2	2			
4									
5	1		4		2	2			
6	1		4		2	2			
7	1		4		2	2			
8	1		4		2	2			
9	1		4		2	2			
10	1		4		2	2			
11	1		4		2	2			
12			1		2	2			
13			1						
14					2				
15					2				
16	1		4		2	1			

Laboratory Staff

Relinquished By: Terry Nham - GHD
Date & Time : 19/02/2021
Signature: TN

Received By: GTN
Date & Time : 19/2/21 7:09 pm
Signature: GTN

Turn around time

1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment

☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 13.5

Report number: 775277

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	**Contact Name :** Terry Nham / Jake Vickers	**Purchase Order :** 2127234	**COC Number :**
Office Address : Level 15, 133 Castlereagh Street, Sydney NSW 2000	**Project Manager :** Henry Luo	**PROJECT Number :** 2127234	**Eurofins | mgt quote ID :** GHD Rates 2020/2021
	Email for results : terry.nham@ghd.com henry.luo@ghd.com jake.vickers@ghd.com	**PROJECT Name :** Central	**Data output format:** ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number:

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Cation (B11D) and Anion (B11E)		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)					
1	CSM_BH08	19/2/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Containers:

500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag
1		4		2	2		

Sample comments:

Relinquished By: Terry Nham
Date & Time : 19/2/2021
Signature:

Laboratory Staff
Received By: GTN
Date & Time : 19/2/21 7:09 am
Signature: GTN

Turn around time
1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☑ 10 DAY ☐ Other:

Method Of Shipment
☐ Courier
☑ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 0.3

Report number: 775278

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	GHD Pty Ltd NSW
Contact name:	Terry Nham
Project name:	CENTRAL
Project ID:	2127234
Turnaround time:	5 Day
Date/Time received	Feb 19, 2021 7:09 PM
Eurofins reference	775277

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 13.5 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
X	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Contact

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

Elvis Dsouza on phone : or by email: ElvisDsouza@eurofins.com

Results will be delivered electronically via email to Terry Nham - Terry.Nham@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025 – Testing
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Terry Nham**

Report **775277-W**
Project name CENTRAL
Project ID 2127234
Received Date Feb 19, 2021

Client Sample ID			**CSM_BH02**	**CSM_BH04**	**CSM_BH06**	**CSM_BH10S**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-Fe39742**	**S21-Fe39743**	**S21-Fe39744**	**S21-Fe39745**
Date Sampled			**Feb 18, 2021**	**Feb 17, 2021**	**Feb 18, 2021**	**Feb 17, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	0.49	0.09	0.28	0.19
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	0.1
TRH C29-C36	0.1	mg/L	0.2	0.2	< 0.1	0.2
TRH C10-C36 (Total)	0.1	mg/L	0.69	0.29	0.28	0.49
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	94	101	91	97
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	0.30	0.07	0.13	0.15
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	0.3	0.07	0.13	0.15
TRH >C16-C34	0.1	mg/L	0.1	0.2	< 0.1	0.2
TRH >C34-C40	0.1	mg/L	0.5	0.2	< 0.1	0.2
TRH >C10-C40 (total)*	0.1	mg/L	0.9	0.47	0.13	0.55
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH10S
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39742	S21-Fe39743	S21-Fe39744	S21-Fe39745
Date Sampled			Feb 18, 2021	Feb 17, 2021	Feb 18, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	28	26	31	29
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	0.30	< 0.05	0.13	0.08
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	0.5	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	0.69	< 0.1	0.28	0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	0.49	< 0.05	0.28	0.10
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	0.2	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	0.00003	0.00002
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	0.00002	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	0.00005	0.00002
2-Fluorobiphenyl (surr.)	1	%	57	71	108	115
p-Terphenyl-d14 (surr.)	1	%	92	93	71	105
Ammonia (as N)	0.01	mg/L	0.04	0.02	0.06	0.11
Chloride	1	mg/L	180	83	410	47
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	3.1	3.2	< 0.5
pH (at 25 °C)	0.1	pH Units	7.2	5.7	6.4	5.6
Sulphate (as SO4)	5	mg/L	27	44	25	55
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	560	190	410	110

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH10S
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39742	S21-Fe39743	S21-Fe39744	S21-Fe39745
Date Sampled			Feb 18, 2021	Feb 17, 2021	Feb 18, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Total Suspended Solids Dried at 103–105°C	5	mg/L	12000	340	350	230
Hardness mg equivalent CaCO3/L	1	mg/L	240	68	190	32
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	330	100	150	24
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	330	100	150	24
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.012	0.005	0.025	0.18
Iron	0.05	mg/L	25	24	19	4.0
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.002
Manganese	0.005	mg/L	0.45	0.57	0.38	0.57
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.007	0.024	0.010	0.012
Zinc (filtered)	0.005	mg/L	0.012	0.016	0.038	0.075
Alkali Metals						
Calcium	0.5	mg/L	35	5.3	25	3.4
Magnesium	0.5	mg/L	38	13	30	5.7
Potassium	0.5	mg/L	6.5	4.0	5.2	3.3
Sodium	0.5	mg/L	100	61	98	30

Client Sample ID			SRT_BH047	SRT_BH052	GASW_BH10	GASW_BH11
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39746	S21-Fe39747	S21-Fe39748	S21-Fe39749
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 18, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	0.06	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	0.10	0.31	0.16
TRH C15-C28	0.1	mg/L	< 0.1	0.1	0.1	0.2
TRH C29-C36	0.1	mg/L	< 0.1	0.2	< 0.1	0.2
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	0.4	0.41	0.56
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	0.002
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	98	97	98	97

Client Sample ID			SRT_BH047	SRT_BH052	GASW_BH10	GASW_BH11
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39746	S21-Fe39747	S21-Fe39748	S21-Fe39749
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 18, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	0.07	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	0.07	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	0.07	0.21	0.11
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	0.07	0.21	0.11
TRH >C16-C34	0.1	mg/L	< 0.1	0.2	< 0.1	0.3
TRH >C34-C40	0.1	mg/L	< 0.1	0.2	< 0.1	0.2
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	0.47	0.21	0.61
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.005	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.005	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.005	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.05	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.005	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.005	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.05	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.01	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.05	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.005	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	23	30	33	28
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	0.21	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	0.41	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	0.31	0.07
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Client Sample ID			SRT_BH047	SRT_BH052	GASW_BH10	GASW_BH11
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39746	S21-Fe39747	S21-Fe39748	S21-Fe39749
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 18, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	0.00003	0.00002	0.00002
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	0.00003	0.00002	0.00002
2-Fluorobiphenyl (surr.)	1	%	87	92	77	101
p-Terphenyl-d14 (surr.)	1	%	60	67	77	101
Ammonia (as N)	0.01	mg/L	0.19	< 0.01	0.12	0.37
Chloride	1	mg/L	37	49	200	50
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	< 0.5	< 0.5	4.9	< 0.5
pH (at 25 °C)	0.1	pH Units	6.2	6.3	6.8	6.6
Sulphate (as SO4)	5	mg/L	14	26	< 5	26
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	110	130	650	200
Total Suspended Solids Dried at 103–105°C	5	mg/L	< 5	150	37000	2600
Hardness mg equivalent CaCO3/L	1	mg/L	60	35	340	100
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	21	37	520	120
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	21	37	520	120
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	0.003	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.15	0.016	0.085	0.15
Iron	0.05	mg/L	0.06	1.6	30	20
Lead (filtered)	0.001	mg/L	0.002	< 0.001	< 0.001	0.001
Manganese	0.005	mg/L	0.028	0.051	0.58	0.39
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.014	0.002	0.034	0.017
Zinc (filtered)	0.005	mg/L	0.10	< 0.005	0.057	0.17
Alkali Metals						
Calcium	0.5	mg/L	11	7.9	60	29
Magnesium	0.5	mg/L	7.7	3.7	47	7.0
Potassium	0.5	mg/L	0.8	1.8	11	8.1
Sodium	0.5	mg/L	24	39	110	31

Client Sample ID			GASW_BH23	GASW_BH25A	QC01	RB01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39750	S21-Fe39751	S21-Fe39752	S21-Fe39753
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 17, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	0.05	0.06	< 0.02	-
TRH C10-C14	0.05	mg/L	< 0.05	0.10	< 0.05	-
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C29-C36	0.1	mg/L	< 0.1	0.1	< 0.1	-
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	0.2	< 0.1	-
BTEX						
Benzene	0.001	mg/L	0.045	0.020	< 0.001	-
Toluene	0.001	mg/L	0.002	0.011	< 0.001	-
Ethylbenzene	0.001	mg/L	< 0.001	0.001	< 0.001	-
m&p-Xylenes	0.002	mg/L	< 0.002	0.004	< 0.002	-
o-Xylene	0.001	mg/L	< 0.001	0.003	< 0.001	-
Xylenes - Total*	0.003	mg/L	< 0.003	0.007	< 0.003	-
4-Bromofluorobenzene (surr.)	1	%	95	92	95	-
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
TRH C6-C10	0.02	mg/L	0.06	0.07	< 0.02	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	0.03	< 0.02	-
TRH >C10-C16	0.05	mg/L	< 0.05	0.08	< 0.05	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	0.08	< 0.05	-
TRH >C16-C34	0.1	mg/L	< 0.1	0.2	< 0.1	-
TRH >C34-C40	0.1	mg/L	< 0.1	0.2	< 0.1	-
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	0.48	< 0.1	-
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	-	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	-	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	-	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	-	-
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	-	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	-	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	-	-
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	-	-
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	-	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	-	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	-	-
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	-	-
Dinoseb	0.1	mg/L	< 0.1	< 0.1	-	-
Phenol	0.003	mg/L	< 0.003	< 0.003	-	-
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	-	-
Phenol-d6 (surr.)	1	%	30	41	-	-
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	-	-
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	-	-

Client Sample ID			GASW_BH23	GASW_BH25A	QC01	RB01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39750	S21-Fe39751	S21-Fe39752	S21-Fe39753
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 17, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	-	-
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	-	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Fluorene	0.00001	mg/L	0.00004	< 0.00001	< 0.00001	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Naphthalene	0.00001	mg/L	0.00009	< 0.00001	< 0.00001	-
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	-
Total PAH*	0.00001	mg/L	0.00013	< 0.00001	< 0.00001	-
2-Fluorobiphenyl (surr.)	1	%	96	94	61	-
p-Terphenyl-d14 (surr.)	1	%	86	73	50	-
Ammonia (as N)	0.01	mg/L	0.40	< 0.01	-	-
Chloride	1	mg/L	15	28	-	-
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	-	-
Ferrous Iron - Fe2+	0.5	mg/L	4.9	< 0.5	-	-
pH (at 25 °C)	0.1	pH Units	7.1	7.6	-	-
Sulphate (as SO4)	5	mg/L	170	34	-	-
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	390	180	-	-
Total Suspended Solids Dried at 103–105°C	5	mg/L	29	9.8	-	-
Hardness mg equivalent CaCO3/L	1	mg/L	490	110	-	-
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	220	120	-	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	-	-
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	-	-
Total Alkalinity (as CaCO3)	20	mg/L	220	120	-	-
Heavy Metals						
Arsenic	0.001	mg/L	-	-	-	< 0.001
Arsenic (filtered)	0.001	mg/L	0.004	0.003	< 0.001	-
Cadmium	0.0002	mg/L	-	-	-	< 0.0002
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	-
Chromium	0.001	mg/L	-	-	-	< 0.001
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	-
Copper	0.001	mg/L	-	-	-	< 0.001
Copper (filtered)	0.001	mg/L	0.008	0.15	0.002	-
Iron	0.05	mg/L	3.5	0.51	-	-

Client Sample ID			GASW_BH23	GASW_BH25A	QC01	RB01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39750	S21-Fe39751	S21-Fe39752	S21-Fe39753
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 17, 2021	Feb 17, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Lead	0.001	mg/L	-	-	-	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	0.001	< 0.001	-
Manganese	0.005	mg/L	0.50	0.013	-	-
Mercury	0.0001	mg/L	-	-	-	< 0.0001
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	-
Nickel	0.001	mg/L	-	-	-	< 0.001
Nickel (filtered)	0.001	mg/L	0.002	0.053	0.023	-
Zinc	0.005	mg/L	-	-	-	< 0.005
Zinc (filtered)	0.005	mg/L	0.12	0.067	0.013	-
Alkali Metals						
Calcium	0.5	mg/L	190	39	-	-
Magnesium	0.5	mg/L	7.3	3.4	-	-
Potassium	0.5	mg/L	10	3.8	-	-
Sodium	0.5	mg/L	29	21	-	-

Client Sample ID			TRIP BLANK	TRIP SPIKE	SRT_BH050	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39754	S21-Fe39755	S21-Fe39756	S21-Fe39757
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 17, 2021	Not Provided[I12]
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	-	-	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	-	-	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	-	-	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	-	-	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	-	-	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	-	0.003	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	-	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	-	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	-	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	90	-	89	93
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	-	-	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	-	-	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	-	-	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	-	-	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	-	-	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	-	-	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	-	-	< 0.1	0.1
TRH >C10-C40 (total)*	0.1	mg/L	-	-	< 0.1	0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	-	-	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	-	-	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	-	-	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	-	-	< 0.01	< 0.01

Client Sample ID			TRIP BLANK	TRIP SPIKE	SRT_BH050	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39754	S21-Fe39755	S21-Fe39756	S21-Fe39757
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 17, 2021	Not Provided[I12]
Test/Reference	LOR	Unit				
Phenols (Halogenated)						
2.6-Dichlorophenol	0.003	mg/L	-	-	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	-	-	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	-	-	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	-	-	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	-	-	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	-	-	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	-	-	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	-	-	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	-	-	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	-	-	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	-	-	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	-	-	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	-	-	< 0.03	< 0.03
Dinoseb	0.1	mg/L	-	-	< 0.1	< 0.1
Phenol	0.003	mg/L	-	-	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	-	-	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	-	-	64	24
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	-	-	-	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	-	-	-	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	-	-	-	0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	-	-	-	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	-	-	-	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	-	-	-	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	-	-	-	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	-	-	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	-	-	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	-	-	52	53
p-Terphenyl-d14 (surr.)	1	%	-	-	85	86

Client Sample ID			TRIP BLANK	TRIP SPIKE	SRT_BH050	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Fe39754	S21-Fe39755	S21-Fe39756	S21-Fe39757
Date Sampled			Feb 17, 2021	Feb 17, 2021	Feb 17, 2021	Not Provided[I12]
Test/Reference	LOR	Unit				
Ammonia (as N)	0.01	mg/L	-	-	0.16	0.05
Chloride	1	mg/L	-	-	25	130
Cyanide (total)	0.004	mg/L	-	-	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.5	mg/L	-	-	< 0.5	4.7
pH (at 25 °C)	0.1	pH Units	-	-	5.2	6.8
Sulphate (as SO4)	5	mg/L	-	-	41	43
Total Dissolved Solids Dried at 180°C ± 2°C	5	mg/L	-	-	-	300
Total Suspended Solids Dried at 103–105°C	5	mg/L	-	-	-	430
Hardness mg equivalent CaCO3/L	1	mg/L	-	-	75	100
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	-	-	< 20	140
Carbonate Alkalinity (as CaCO3)	10	mg/L	-	-	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	-	-	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	-	-	< 20	140
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	-	-	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	-	-	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	-	-	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	-	-	0.008	0.007
Iron	0.05	mg/L	-	-	190	32
Lead (filtered)	0.001	mg/L	-	-	< 0.001	< 0.001
Manganese	0.005	mg/L	-	-	0.067	1.7
Mercury (filtered)	0.0001	mg/L	-	-	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	-	-	0.003	0.002
Zinc (filtered)	0.005	mg/L	-	-	0.008	< 0.005
Alkali Metals						
Calcium	0.5	mg/L	-	-	23	12
Magnesium	0.5	mg/L	-	-	4.4	17
Potassium	0.5	mg/L	-	-	11	4.6
Sodium	0.5	mg/L	-	-	11	76
BTEX						
Benzene	1	%	-	100	-	-
Ethylbenzene	1	%	-	100	-	-
m&p-Xylenes	1	%	-	110	-	-
o-Xylene	1	%	-	99	-	-
Toluene	1	%	-	110	-	-
Xylenes - Total	1	%	-	100	-	-
4-Bromofluorobenzene (surr.)	1	%	-	128	-	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Feb 20, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Sydney	Feb 20, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (Halogenated)	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Sydney	Feb 20, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Feb 24, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Ammonia (as N)	Melbourne	Feb 26, 2021	28 Days
- Method: APHA 4500-NH3 Ammonia Nitrogen by FIA			
Cyanide (total)	Melbourne	Feb 22, 2021	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Ferrous Iron - Fe2+	Sydney	Feb 22, 2021	7 Days
- Method: LTM-INO-4190 Ferrous Iron in Water by Discrete Analyser			
pH (at 25 °C)	Sydney	Feb 22, 2021	1 Days
- Method: LTM-GEN-7090 pH in water by ISE			
Total Suspended Solids Dried at 103–105°C	Sydney	Feb 22, 2021	7 Days
- Method: LTM-INO-4070 Analysis of Suspended Solids in Water by Gravimetry			
Metals M8	Sydney	Feb 26, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals	Sydney	Feb 26, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Eurofins Suite B11E: Cl/SO4/Alkalinity			
Chloride	Melbourne	Feb 23, 2021	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Sulphate (as SO4)	Melbourne	Feb 23, 2021	28 Days
- Method: LTM-INO-4110 Sulfate by Discrete Analyser			
Alkalinity (speciated)	Melbourne	Feb 23, 2021	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Sydney	Feb 20, 2021	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			
Eurofins Suite B11D: Na/K/Ca/Mg and Hardness			
Hardness mg equivalent CaCO3/L	Sydney	Feb 26, 2021	28 Days
- Method: E020.1 Hardness in water			
Alkali Metals	Sydney	Feb 26, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name:	GHD Pty Ltd NSW	**Order No.:**	2127234	**Received:**	Feb 19, 2021 7:09 PM
Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	**Report #:**	775277	**Due:**	Feb 26, 2021
		Phone:	02 9239 7100	**Priority:**	5 Day
		Fax:	02 9239 7199	**Contact Name:**	Terry Nham
Project Name:	CENTRAL				
Project ID:	2127234				

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Ammonia (as N)	Cyanide (total)	Ferrous Iron - Fe2+	Iron	Manganese	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	Phenols (IWRG 621)	BTEX	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	BTEX	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X							X	X			X		X		X	X
Sydney Laboratory - NATA Site # 18217								X	X	X	X	X	X	X	X	X	X	X	X		X		X
Brisbane Laboratory - NATA Site # 20794																							
Perth Laboratory - NATA Site # 23736																							
Mayfield Laboratory																							
External Laboratory																							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																		
1	CSM_BH02	Feb 18, 2021		Water	S21-Fe39742	X	X	X	X	X	X	X			X		X	X	X	X		X	X
2	CSM_BH04	Feb 17, 2021		Water	S21-Fe39743	X	X	X	X	X	X	X			X		X	X	X	X		X	X
3	CSM_BH06	Feb 18, 2021		Water	S21-Fe39744	X	X	X	X	X	X	X			X		X	X	X	X		X	X
4	CSM_BH10S	Feb 17, 2021		Water	S21-Fe39745	X	X	X	X	X	X	X			X		X	X	X	X		X	X
5	SRT_BH047	Feb 17, 2021		Water	S21-Fe39746	X	X	X	X	X	X	X			X		X	X	X	X		X	X
6	SRT_BH052	Feb 17, 2021		Water	S21-Fe39747	X	X	X	X	X	X	X			X		X	X	X	X		X	X
7	GASW_BH10	Feb 18, 2021		Water	S21-Fe39748	X	X	X	X	X	X	X			X		X	X	X	X		X	X
8	GASW_BH11	Feb 17, 2021		Water	S21-Fe39749	X	X	X	X	X	X	X			X		X	X	X	X		X	X
9	GASW_BH23	Feb 17, 2021		Water	S21-Fe39750	X	X	X	X	X	X	X			X		X	X	X	X		X	X

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4/52 Industrial Drive
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PO Box 60 Wickham 2293
Phone : +61 2 4968 8448

New Zealand

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

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

Company Name: GHD Pty Ltd NSW
Address: Level 15, 133 Castlereagh Street
Sydney
NSW 2000

Project Name: CENTRAL
Project ID: 2127234

Order No.: 2127234
Report #: 775277
Phone: 02 9239 7100
Fax: 02 9239 7199

Received: Feb 19, 2021 7:09 PM
Due: Feb 26, 2021
Priority: 5 Day
Contact Name: Terry Nham

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Ammonia (as N)	Cyanide (total)	Ferrous Iron - Fe2+	Iron	Manganese	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	Phenols (IWRG 621)	BTEX	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	BTEX	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X							X	X			X		X		X	X
Sydney Laboratory - NATA Site # 18217								X	X	X	X	X	X	X	X	X	X	X	X		X		X
Brisbane Laboratory - NATA Site # 20794																							
Perth Laboratory - NATA Site # 23736																							
Mayfield Laboratory																							
External Laboratory																							
10	GASW_BH25A	Feb 17, 2021		Water	S21-Fe39751	X	X	X	X	X	X	X			X		X	X	X	X		X	X
11	QC01	Feb 17, 2021		Water	S21-Fe39752													X				X	
12	RB01	Feb 17, 2021		Water	S21-Fe39753								X										
13	TRIP BLANK	Feb 17, 2021		Water	S21-Fe39754											X							
14	TRIP SPIKE	Feb 17, 2021		Water	S21-Fe39755																X		
15	SRT_BH050	Feb 17, 2021		Water	S21-Fe39756	X	X	X	X	X	X			X				X	X	X		X	
16	CSM_BH08	Not Provided		Water	S21-Fe39757	X	X	X	X	X	X	X			X		X	X	X	X		X	X
Test Counts						13	19	13	13	13	12	11	1	12	12	1	11	13	12	12	1	13	11

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH C15-C28 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH C29-C36 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	mg/L	< 0.00001			0.00001	Pass	
Acenaphthylene	mg/L	< 0.00001			0.00001	Pass	
Anthracene	mg/L	< 0.00001			0.00001	Pass	
Benz(a)anthracene	mg/L	< 0.00001			0.00001	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00001			0.00001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Chrysene	mg/L	< 0.00001			0.00001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00001			0.00001	Pass	
Fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Fluorene	mg/L	< 0.00001			0.00001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00001			0.00001	Pass	
Naphthalene	mg/L	< 0.00001			0.00001	Pass	
Phenanthrene	mg/L	< 0.00001			0.00001	Pass	
Pyrene	mg/L	< 0.00001			0.00001	Pass	
Total PAH*	mg/L	-			0.00001	N/A	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Cyanide (total)	mg/L	< 0.004			0.004	Pass	
Ferrous Iron - Fe2+	mg/L	< 0.5			0.5	Pass	
Sulphate (as SO4)	mg/L	< 5			5	Pass	
Total Suspended Solids Dried at 103–105°C	mg/L	< 5			5	Pass	
Method Blank							
Alkalinity (speciated)							
Bicarbonate Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Carbonate Alkalinity (as CaCO3)	mg/L	< 10			10	Pass	
Hydroxide Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Total Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Iron	mg/L	< 0.05			0.05	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Manganese	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	110			70-130	Pass	
TRH C10-C14	%	73			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	104			70-130	Pass	
Toluene	%	111			70-130	Pass	
Ethylbenzene	%	113			70-130	Pass	
m&p-Xylenes	%	113			70-130	Pass	
o-Xylene	%	114			70-130	Pass	
Xylenes - Total*	%	113			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	122			70-130	Pass	
TRH C6-C10	%	107			70-130	Pass	
TRH >C10-C16	%	70			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	%	70			70-130	Pass	
LCS - % Recovery							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	%	73			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	96			70-130	Pass	
Acenaphthylene	%	112			70-130	Pass	
Anthracene	%	92			70-130	Pass	
Benz(a)anthracene	%	93			70-130	Pass	
Benzo(a)pyrene	%	95			70-130	Pass	
Benzo(b&j)fluoranthene	%	99			70-130	Pass	
Benzo(g.h.i)perylene	%	95			70-130	Pass	
Benzo(k)fluoranthene	%	103			70-130	Pass	
Chrysene	%	102			70-130	Pass	
Dibenz(a.h)anthracene	%	98			70-130	Pass	
Fluoranthene	%	94			70-130	Pass	
Fluorene	%	101			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	95			70-130	Pass	
Naphthalene	%	98			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	95			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	106			70-130	Pass	
Chloride	%	112			70-130	Pass	
Cyanide (total)	%	104			70-130	Pass	
Ferrous Iron - Fe2+	%	106			70-130	Pass	
Sulphate (as SO4)	%	123			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	%	88			70-130	Pass	
LCS - % Recovery							
Alkalinity (speciated)							
Carbonate Alkalinity (as CaCO3)	%	94			70-130	Pass	
Total Alkalinity (as CaCO3)	%	103			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	92			80-120	Pass	
Arsenic (filtered)	%	88			80-120	Pass	
Cadmium	%	96			80-120	Pass	
Chromium	%	92			80-120	Pass	
Chromium (filtered)	%	100			80-120	Pass	
Copper	%	91			80-120	Pass	
Copper (filtered)	%	103			80-120	Pass	
Iron	%	96			80-120	Pass	
Lead	%	104			80-120	Pass	
Lead (filtered)	%	98			80-120	Pass	
Manganese	%	97			80-120	Pass	
Mercury	%	106			80-120	Pass	
Mercury (filtered)	%	105			80-120	Pass	
Nickel	%	90			80-120	Pass	
Nickel (filtered)	%	98			80-120	Pass	
Zinc	%	82			80-120	Pass	
Zinc (filtered)	%	97			80-120	Pass	
LCS - % Recovery							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Alkali Metals									
Calcium			%	103			80-120	Pass	
Magnesium			%	90			80-120	Pass	
Potassium			%	93			80-120	Pass	
Sodium			%	91			80-120	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S21-Fe37416	NCP	%	108			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ferrous Iron - Fe2+	S21-Fe39742	CP	%	104			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	S21-Fe39537	NCP	%	89			70-130	Pass	
Spike - % Recovery									
Alkalinity (speciated)				Result 1					
Carbonate Alkalinity (as CaCO3)	M21-Fe43340	NCP	%	97			70-130	Pass	
Total Alkalinity (as CaCO3)	M21-Fe43340	NCP	%	124			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S21-Fe39744	CP	%	118			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S21-Fe39744	CP	%	122			70-130	Pass	
Toluene	S21-Fe39744	CP	%	125			70-130	Pass	
Ethylbenzene	S21-Fe39744	CP	%	124			70-130	Pass	
m&p-Xylenes	S21-Fe39744	CP	%	124			70-130	Pass	
o-Xylene	S21-Fe39744	CP	%	124			70-130	Pass	
Xylenes - Total*	S21-Fe39744	CP	%	124			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH C6-C10	S21-Fe39744	CP	%	118			70-130	Pass	
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S21-Fe39750	CP	%	107			70-130	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	S21-Fe39757	CP	%	128			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Fe39757	CP	%	110			75-125	Pass	
Arsenic (filtered)	S21-Fe39757	CP	%	99			75-125	Pass	
Cadmium	S21-Fe39757	CP	%	107			75-125	Pass	
Cadmium (filtered)	S21-Fe39757	CP	%	102			75-125	Pass	
Chromium	S21-Fe39757	CP	%	97			75-125	Pass	
Chromium (filtered)	S21-Fe39757	CP	%	95			75-125	Pass	
Copper	S21-Fe39757	CP	%	94			75-125	Pass	
Copper (filtered)	S21-Fe39757	CP	%	96			75-125	Pass	
Iron	S21-Fe39757	CP	%	93			75-125	Pass	
Lead	S21-Fe39757	CP	%	95			75-125	Pass	
Lead (filtered)	S21-Fe39757	CP	%	97			75-125	Pass	
Manganese	S21-Fe39757	CP	%	108			75-125	Pass	
Mercury	S21-Fe39757	CP	%	106			75-125	Pass	
Mercury (filtered)	S21-Fe39757	CP	%	108			75-125	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Nickel	S21-Fe39757	CP	%	95			75-125	Pass	
Nickel (filtered)	S21-Fe39757	CP	%	96			75-125	Pass	
Zinc	S21-Fe39757	CP	%	97			75-125	Pass	
Zinc (filtered)	S21-Fe39757	CP	%	98			75-125	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S21-Fe39757	CP	%	89			75-125	Pass	
Magnesium	S21-Fe39757	CP	%	93			75-125	Pass	
Potassium	S21-Fe39757	CP	%	91			75-125	Pass	
Sodium	S21-Fe39757	CP	%	87			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Naphthalene	B21-Fe44952	NCP	mg/L	0.0013	0.0012	14	30%	Pass	
Phenanthrene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	B21-Fe44952	NCP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Hardness mg equivalent CaCO3/L	S21-Fe39742	CP	mg/L	240	240	1.0	30%	Pass	
Duplicate									
Alkalinity (speciated)				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	S21-Fe38893	NCP	mg/L	430	410	4.0	30%	Pass	
Carbonate Alkalinity (as CaCO3)	S21-Fe38893	NCP	mg/L	< 10	< 10	<1	30%	Pass	
Hydroxide Alkalinity (as CaCO3)	S21-Fe38893	NCP	mg/L	< 20	< 20	<1	30%	Pass	
Total Alkalinity (as CaCO3)	S21-Fe38893	NCP	mg/L	430	410	4.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Fe39742	CP	mg/L	0.012	0.012	<1	30%	Pass	
Arsenic (filtered)	S21-Fe39742	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S21-Fe39742	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Cadmium (filtered)	S21-Fe39742	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Fe39742	CP	mg/L	0.044	0.044	<1	30%	Pass	
Chromium (filtered)	S21-Fe39742	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S21-Fe39742	CP	mg/L	0.031	0.031	<1	30%	Pass	
Copper (filtered)	S21-Fe39742	CP	mg/L	0.012	0.012	1.0	30%	Pass	
Lead	S21-Fe39742	CP	mg/L	0.052	0.053	3.0	30%	Pass	
Lead (filtered)	S21-Fe39742	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese	S21-Fe39742	CP	mg/L	0.45	0.45	<1	30%	Pass	
Mercury	S21-Fe39742	CP	mg/L	0.0001	0.0001	2.0	30%	Pass	
Mercury (filtered)	S21-Fe39742	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Fe39742	CP	mg/L	0.018	0.018	1.0	30%	Pass	

Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Nickel (filtered)	S21-Fe39742	CP	mg/L	0.007	0.007	5.0	30%	Pass	
Zinc	S21-Fe39742	CP	mg/L	0.10	0.10	1.0	30%	Pass	
Zinc (filtered)	S21-Fe39742	CP	mg/L	0.012	0.011	9.0	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S21-Fe39742	CP	mg/L	35	34	<1	30%	Pass	
Magnesium	S21-Fe39742	CP	mg/L	38	38	1.0	30%	Pass	
Potassium	S21-Fe39742	CP	mg/L	6.5	6.4	1.0	30%	Pass	
Sodium	S21-Fe39742	CP	mg/L	100	97	3.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	S21-Fe39848	NCP	mg/L	0.17	0.16	9.0	30%	Pass	
TRH C15-C28	S21-Fe39848	NCP	mg/L	0.3	0.3	5.0	30%	Pass	
TRH C29-C36	S21-Fe39848	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	S21-Fe39848	NCP	mg/L	0.21	0.20	7.0	30%	Pass	
TRH >C16-C34	S21-Fe39848	NCP	mg/L	0.2	0.3	7.0	30%	Pass	
TRH >C34-C40	S21-Fe39848	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180°C ± 2°C	S21-Fe39743	CP	mg/L	190	190	2.0	30%	Pass	
Hardness mg equivalent CaCO3/L	S21-Fe39743	CP	mg/L	68	69	1.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Fe39743	CP	mg/L	0.002	0.002	5.0	30%	Pass	
Cadmium	S21-Fe39743	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Fe39743	CP	mg/L	0.013	0.014	5.0	30%	Pass	
Copper	S21-Fe39743	CP	mg/L	0.015	0.016	7.0	30%	Pass	
Lead	S21-Fe39743	CP	mg/L	0.007	0.007	9.0	30%	Pass	
Manganese	S21-Fe39743	CP	mg/L	0.57	0.58	3.0	30%	Pass	
Mercury	S21-Fe39743	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Fe39743	CP	mg/L	0.031	0.032	1.0	30%	Pass	
Zinc	S21-Fe39743	CP	mg/L	0.041	0.042	3.0	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Calcium	S21-Fe39743	CP	mg/L	5.3	5.4	2.0	30%	Pass	
Magnesium	S21-Fe39743	CP	mg/L	13	13	1.0	30%	Pass	
Potassium	S21-Fe39743	CP	mg/L	4.0	4.1	2.0	30%	Pass	
Sodium	S21-Fe39743	CP	mg/L	61	61	1.0	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S21-Fe39745	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Fe39745	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-Fe39745	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-Fe39745	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-Fe39745	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-Fe39745	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-Fe39745	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S21-Fe39745	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S21-Fe39745	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Suspended Solids Dried at 103–105°C	S21-Fe39745	CP	mg/L	230	220	3.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	S21-Fe39748	CP	mg/L	200	180	6.0	30%	Pass	
Sulphate (as SO4)	S21-Fe39748	CP	mg/L	< 5	< 5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S21-Fe39750	CP	mg/L	0.40	0.39	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S21-Fe39752	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S21-Fe39752	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S21-Fe39752	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S21-Fe39752	CP	mg/L	0.002	0.002	12	30%	Pass	
Lead (filtered)	S21-Fe39752	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury (filtered)	S21-Fe39752	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S21-Fe39752	CP	mg/L	0.023	0.023	1.0	30%	Pass	
Zinc (filtered)	S21-Fe39752	CP	mg/L	0.013	0.017	26	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Fe39753	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S21-Fe39753	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Fe39753	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S21-Fe39753	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S21-Fe39753	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S21-Fe39753	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Fe39753	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S21-Fe39753	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S21-Fe39757	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S21-Fe39757	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S21-Fe39757	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S21-Fe39757	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S21-Fe39757	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S21-Fe39757	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S21-Fe39757	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S21-Fe39757	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH C6-C10	S21-Fe39757	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Cyanide (total)	S21-Fe39757	CP	mg/L	< 0.004	< 0.004	<1	30%	Pass	
Ferrous Iron - Fe2+	S21-Fe39757	CP	mg/L	4.7	4.7	<1	30%	Pass	

Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
I12	Where sampling date has not been provided, Eurofins | Environment Testing is not able to determine whether analysis has been performed within recommended holding times.

Authorised by:

Elvis Dsouza	Analytical Services Manager
Andrew Sullivan	Senior Analyst-Organic (NSW)
Charl Du Preez	Senior Analyst-Inorganic (NSW)
John Nguyen	Senior Analyst-Metal (NSW)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

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☑ **Sydney**
Unit F3 - 6 Building F, 16 Mars Road, Lane Cove
Phone: +612 9900 8400
Email: enviro.syd@mgtlabmark.com.au

☐ **Brisbane**
Unit 1-21 Smallwood Place, Murrarie
Phone: +617 3902 4600
Email: enviro.bris@mgtlabmark.com.au

☐ **Melbourne**
2 Kingston Town Close, Oakleigh, VIC 3166
Phone: +613 8564 5000 Fax: +613 8564 5090
Email: enquiries.melb@mgtlabmark.com.au

CHAIN OF CUSTODY RECORD

CLIENT DETAILS

Company Name : GHD Pty Ltd, Sydney	Contact Name : Terry Nham	Purchase Order : 2127234	COC Number :
Office Address :	Project Manager : Henry Luo	PROJECT Number : 2127234	Eurofins | mgt quote ID : GHD Rates 2020/2021
Level 15, 133 Castlereagh Street, Sydney NSW 2000	Email for results : terry.nham@ghd.com henry.luo@ghd.com	PROJECT Name : Central	Data output format: ESDAT

Special Directions & Comments :

Eurofins | mgt DI water batch number: 50293

Analytes

	Sample ID	Date	Matrix	TRH, BTEXN, 8 Metals (Dissolved) (Suite B6)	PAH - Trace LOR	Phenols		TRH (with Silica Gel Cleanup)	Cyanide - Trace Level (<0.004 mg/L)	Ammonia	Cation (B11D) and Anion (B11E)		Ferrous Iron	Manganese	pH	TDS	TSS		TRH C6-C10 / BTEX	8 Metals (Total)					Containers: 500P	250P	60P	1LA	40mL vial	200mL A	Jar	Bag	Sample comments:
1	CSM_BH02	17/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
2	CSM_BH04	17/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
3	CSM_BH06	17/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
4	CSM_BH08	17/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
5	CSM_BH10S	17/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
6	SRT_BH047	18/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
7	SRT_BH052	18/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
8	GASW_BH10	17/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
9	GASW_BH11	18/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
10	GASW_BH23	18/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
11	GASW_BH25A	18/3/21	Water	X	X	X		X	X	X	X		X	X	X	X	X								1		4		2	2			
12	QC01	17/3/21	Water	X	X																					1		2	21			
13	RB01	18/3/21	Water																			X				1						
14	Trip Blank	17/3/21	Water																		X							2				
15	Trip Spike	17/3/21	Water																		X							2				
16	SRT_BH050	18/3/21	Water	X	X	X			X	X	X		X	X	X										1		4		2	1			

Some common holding times (with correct preservation).
For further information contact the lab

Waters		Soils	
BTEX, MAH, VOC	14 days	BTEX, MAH, VOC	14 days
TRH, PAH, Phenols, Pesticides	7 days	TRH, PAH, Phenols, Pesticides	14 days
Heavy Metals	6 months	Heavy Metals	6 months
Mercury, CrVI	28 days	Mercury, CrVI	28 days
Microbiological testing	24 hours	Microbiological testing	72 hours
BOD, Nitrate, Nitrite, Total N	2 days	Anions	28 days
Solids - TSS, TDS etc	7 days	SPOCAS, pH Field and FOX, CrS	24 hours
Ferrous iron	7 days	ASLP, TCLP	7 days

Laboratory Staff

Relinquished By: Terry Nham - GHD
Date & Time : 18/3/2021
Signature:

Received By: MBIRKETT
Date & Time : 18/03/21 4:09pm
Signature:

Turn around time

1 DAY ☐ 2 DAY ☐ 3 DAY ☐
5 DAY ☒ 10 DAY ☐ Other:

Method Of Shipment

☐ Courier
☒ Hand Delivered
☐ Postal
Courier Consignment # :

Temperature on arrival: 2.13 °C

Report number: 781353

eurofins | Environment Testing

ABN: 50 005 085 521 www.eurofins.com.au EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Sample Receipt Advice

Company name:	GHD Pty Ltd NSW
Contact name:	Henry Luo
Project name:	CENTRAL
Project ID:	2127234
Turnaround time:	5 Day
Date/Time received	Mar 18, 2021 4:09 PM
Eurofins reference	781353

Sample Information

✓	A detailed list of analytes logged into our LIMS, is included in the attached summary table.
✓	Sample Temperature of a random sample selected from the batch as recorded by Eurofins Sample Receipt : 2.1 degrees Celsius.
✓	All samples have been received as described on the above COC.
✓	COC has been completed correctly.
✓	Attempt to chill was evident.
✓	Appropriately preserved sample containers have been used.
✓	All samples were received in good condition.
✓	Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
✓	Appropriate sample containers have been used.
✓	Sample containers for volatile analysis received with zero headspace.
X	Split sample sent to requested external lab.
X	Some samples have been subcontracted.
N/A	Custody Seals intact (if used).

Notes

Trip Spike (vials) broken on transit. Analysis cancelled.

Contact

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

Elvis Dsouza on phone : or by email: ElvisDsouza@eurofins.com

Results will be delivered electronically via email to Henry Luo - henry.luo@ghd.com.

Note: A copy of these results will also be delivered to the general GHD Pty Ltd NSW email address.

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **Henry Luo**

Report **781353-W-V2**
Project name CENTRAL
Project ID 2127234
Received Date Mar 18, 2021

Client Sample ID			**CSM_BH02**	**CSM_BH04**	**CSM_BH06**	**CSM_BH08**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins Sample No.			**S21-Ma34288**	**S21-Ma34289**	**S21-Ma34290**	**S21-Ma34291**
Date Sampled			**Mar 17, 2021**	**Mar 17, 2021**	**Mar 17, 2021**	**Mar 17, 2021**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	147	82	77	80
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34288	S21-Ma34289	S21-Ma34290	S21-Ma34291
Date Sampled			Mar 17, 2021	Mar 17, 2021	Mar 17, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	89	82	81	98
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	77	73	68	79
p-Terphenyl-d14 (surr.)	1	%	98	79	79	101
Ammonia (as N)	0.01	mg/L	0.18	0.03	0.01	0.09
Chloride	1	mg/L	83	69	220	100
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.05	mg/L	< 0.05	3.1	0.60	4.8
pH (at 25 °C)	0.1	pH Units	7.6	7.3	7.4	7.4
Sulphate (as SO4)	5	mg/L	36	56	33	46
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	280	230	510	310

Client Sample ID			CSM_BH02	CSM_BH04	CSM_BH06	CSM_BH08
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34288	S21-Ma34289	S21-Ma34290	S21-Ma34291
Date Sampled			Mar 17, 2021	Mar 17, 2021	Mar 17, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Total Suspended Solids Dried at 103–105°C	1	mg/L	5500	370	90	270
Hardness mg equivalent CaCO3/L	5	mg/L	140	68	200	98
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	2000	1900	1900	2000
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	2000	1900	1900	2000
Alkali Metals						
Calcium	0.5	mg/L	23	6.8	32	12
Magnesium	0.5	mg/L	20	12	30	16
Potassium	0.5	mg/L	3.0	2.6	4.3	3.5
Sodium	0.5	mg/L	69	70	99	78
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.003	0.002	0.042	0.006
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.11	0.42	0.27	0.39
Mercury (filtered)	0.0001	mg/L	0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.008	0.026	0.010	0.005
Zinc (filtered)	0.005	mg/L	0.017	0.027	0.093	0.024

Client Sample ID			CSM_BH10S	SRT_BH047	SRT_BH052	GASW_BH10
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34292	S21-Ma34293	S21-Ma34294	S21-Ma34295
Date Sampled			Mar 17, 2021	Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	88	83	76	84
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			CSM_BH10S	SRT_BH047	SRT_BH052	GASW_BH10
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34292	S21-Ma34293	S21-Ma34294	S21-Ma34295
Date Sampled			Mar 17, 2021	Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	< 0.006
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	< 0.03
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenol-d6 (surr.)	1	%	90	79	96	70
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001

Client Sample ID			CSM_BH10S	SRT_BH047	SRT_BH052	GASW_BH10
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34292	S21-Ma34293	S21-Ma34294	S21-Ma34295
Date Sampled			Mar 17, 2021	Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons (Trace level)						
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	73	60	71	96
p-Terphenyl-d14 (surr.)	1	%	99	72	90	69
Ammonia (as N)	0.01	mg/L	0.31	< 0.01	0.12	0.16
Chloride	1	mg/L	23	84	42	170
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	< 0.004
Ferrous Iron - Fe2+	0.05	mg/L	< 0.05	< 0.05	< 0.05	0.63
pH (at 25 °C)	0.1	pH Units	6.7	6.7	7.1	7.9
Sulphate (as SO4)	5	mg/L	72	28	33	< 5
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	110	190	180	620
Total Suspended Solids Dried at 103–105°C	1	mg/L	1500	97	370	17000
Hardness mg equivalent CaCO3/L	5	mg/L	42	62	52	450
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	1300	1200	1400	2200
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	< 10
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	< 20
Total Alkalinity (as CaCO3)	20	mg/L	1300	1200	1400	2200
Alkali Metals						
Calcium	0.5	mg/L	6.3	11	13	100
Magnesium	0.5	mg/L	6.3	8.7	4.5	46
Potassium	0.5	mg/L	2.9	0.8	1.4	10
Sodium	0.5	mg/L	34	25	43	120
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium (filtered)	0.0002	mg/L	0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.13	< 0.001	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	0.006	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.50	0.023	< 0.005	0.15
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.031	0.005	< 0.001	0.007
Zinc (filtered)	0.005	mg/L	0.23	0.044	0.006	0.023

Client Sample ID			GASW_BH11	GASW_BH23	GASW_BH25A	QC01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34296	S21-Ma34297	S21-Ma34298	S21-Ma34299
Date Sampled			Mar 18, 2021	Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	0.11	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
BTEX						
Benzene	0.001	mg/L	< 0.001	0.060	0.003	< 0.001
Toluene	0.001	mg/L	< 0.001	0.001	0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	0.001	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	76	80	145	149
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	< 0.02	0.11	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	0.05	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH >C16-C34	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Phenols (Halogenated)						
2-Chlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2.4-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2.4.5-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
2.4.6-Trichlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
2.6-Dichlorophenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
4-Chloro-3-methylphenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Tetrachlorophenols - Total	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
Total Halogenated Phenol*	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
2-Methylphenol (o-Cresol)	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2-Nitrophenol	0.01	mg/L	< 0.01	< 0.01	< 0.01	-
2.4-Dimethylphenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
2.4-Dinitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	< 0.006	< 0.006	< 0.006	-
4-Nitrophenol	0.03	mg/L	< 0.03	< 0.03	< 0.03	-
Dinoseb	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
Phenol	0.003	mg/L	< 0.003	< 0.003	< 0.003	-
Total Non-Halogenated Phenol*	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
Phenol-d6 (surr.)	1	%	79	87	79	-
TRH - 2013 NEPM Fractions (after silica gel clean-up)						
TRH >C10-C16 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH >C16-C34 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH >C34-C40 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-

Client Sample ID			GASW_BH11	GASW_BH23	GASW_BH25A	QC01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34296	S21-Ma34297	S21-Ma34298	S21-Ma34299
Date Sampled			Mar 18, 2021	Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
TRH - 1999 NEPM Fractions (after silica gel clean-up)						
TRH C10-C36 (Total) (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C10-C14 (after silica gel clean-up)	0.05	mg/L	< 0.05	< 0.05	< 0.05	-
TRH C15-C28 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
TRH C29-C36 (after silica gel clean-up)	0.1	mg/L	< 0.1	< 0.1	< 0.1	-
Polycyclic Aromatic Hydrocarbons (Trace level)						
Acenaphthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Acenaphthylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benz(a)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(a)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(b&j)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(g.h.i)perylene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Benzo(k)fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Chrysene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Dibenz(a.h)anthracene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluoranthene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Fluorene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Naphthalene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Phenanthrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Pyrene	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Total PAH*	0.00001	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
2-Fluorobiphenyl (surr.)	1	%	61	77	64	67
p-Terphenyl-d14 (surr.)	1	%	84	101	100	104
Ammonia (as N)	0.01	mg/L	0.35	0.30	0.11	-
Chloride	1	mg/L	34	32	26	-
Cyanide (total)	0.004	mg/L	< 0.004	< 0.004	< 0.004	-
Ferrous Iron - Fe2+	0.05	mg/L	0.54	5.4	< 0.05	-
pH (at 25 °C)	0.1	pH Units	7.4	8.0	7.8	-
Sulphate (as SO4)	5	mg/L	31	98	41	-
Total Dissolved Solids Dried at 180°C ± 2°C	10	mg/L	210	320	160	-
Total Suspended Solids Dried at 103–105°C	1	mg/L	7200	22	41	-
Hardness mg equivalent CaCO3/L	5	mg/L	73	220	130	-
Alkalinity (speciated)						
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	1800	1700	1900	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	< 10	< 10	< 10	-
Hydroxide Alkalinity (as CaCO3)	20	mg/L	< 20	< 20	< 20	-
Total Alkalinity (as CaCO3)	20	mg/L	1800	1700	1900	-
Alkali Metals						
Calcium	0.5	mg/L	20	76	47	-
Magnesium	0.5	mg/L	5.8	6.4	3.9	-
Potassium	0.5	mg/L	2.6	7.3	3.6	-
Sodium	0.5	mg/L	36	22	18	-
Heavy Metals						
Arsenic (filtered)	0.001	mg/L	< 0.001	0.003	0.002	< 0.001
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			GASW_BH11	GASW_BH23	GASW_BH25A	QC01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S21-Ma34296	S21-Ma34297	S21-Ma34298	S21-Ma34299
Date Sampled			Mar 18, 2021	Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit				
Heavy Metals						
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	0.17	0.26	0.012	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	0.002	< 0.001	< 0.001	0.005
Zinc (filtered)	0.005	mg/L	0.069	0.052	0.017	0.024

Client Sample ID			RB01	SRT_BH050	TRIP BLANK
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S21-Ma34300	S21-Ma34301	S21-Ma34302
Date Sampled			Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
TRH C6-C9	0.02	mg/L	-	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	-	< 0.05	-
TRH C15-C28	0.1	mg/L	-	< 0.1	-
TRH C29-C36	0.1	mg/L	-	< 0.1	-
TRH C10-C36 (Total)	0.1	mg/L	-	< 0.1	-
BTEX					
Benzene	0.001	mg/L	-	< 0.001	< 0.001
Toluene	0.001	mg/L	-	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	-	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	-	< 0.002	< 0.002
o-Xylene	0.001	mg/L	-	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	-	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	-	78	92
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.01	mg/L	-	< 0.01	< 0.01
TRH C6-C10	0.02	mg/L	-	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	-	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	-	< 0.05	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	-	< 0.05	-
TRH >C16-C34	0.1	mg/L	-	< 0.1	-
TRH >C34-C40	0.1	mg/L	-	< 0.1	-
TRH >C10-C40 (total)*	0.1	mg/L	-	< 0.1	-
Phenols (Halogenated)					
2-Chlorophenol	0.003	mg/L	-	< 0.003	-
2.4-Dichlorophenol	0.003	mg/L	-	< 0.003	-
2.4.5-Trichlorophenol	0.01	mg/L	-	< 0.01	-
2.4.6-Trichlorophenol	0.01	mg/L	-	< 0.01	-
2.6-Dichlorophenol	0.003	mg/L	-	< 0.003	-
4-Chloro-3-methylphenol	0.01	mg/L	-	< 0.01	-
Pentachlorophenol	0.01	mg/L	-	< 0.01	-
Tetrachlorophenols - Total	0.03	mg/L	-	< 0.03	-
Total Halogenated Phenol*	0.01	mg/L	-	< 0.01	-

Client Sample ID			RB01	SRT_BH050	TRIP BLANK
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S21-Ma34300	S21-Ma34301	S21-Ma34302
Date Sampled			Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit			
Phenols (non-Halogenated)					
2-Cyclohexyl-4.6-dinitrophenol	0.1	mg/L	-	< 0.1	-
2-Methyl-4.6-dinitrophenol	0.03	mg/L	-	< 0.03	-
2-Methylphenol (o-Cresol)	0.003	mg/L	-	< 0.003	-
2-Nitrophenol	0.01	mg/L	-	< 0.01	-
2.4-Dimethylphenol	0.003	mg/L	-	< 0.003	-
2.4-Dinitrophenol	0.03	mg/L	-	< 0.03	-
3&4-Methylphenol (m&p-Cresol)	0.006	mg/L	-	< 0.006	-
4-Nitrophenol	0.03	mg/L	-	< 0.03	-
Dinoseb	0.1	mg/L	-	< 0.1	-
Phenol	0.003	mg/L	-	< 0.003	-
Total Non-Halogenated Phenol*	0.1	mg/L	-	< 0.1	-
Phenol-d6 (surr.)	1	%	-	34	-
Polycyclic Aromatic Hydrocarbons (Trace level)					
Acenaphthene	0.00001	mg/L	-	< 0.00001	-
Acenaphthylene	0.00001	mg/L	-	< 0.00001	-
Anthracene	0.00001	mg/L	-	< 0.00001	-
Benz(a)anthracene	0.00001	mg/L	-	< 0.00001	-
Benzo(a)pyrene	0.00001	mg/L	-	< 0.00001	-
Benzo(b&j)fluoranthene	0.00001	mg/L	-	< 0.00001	-
Benzo(g.h.i)perylene	0.00001	mg/L	-	< 0.00001	-
Benzo(k)fluoranthene	0.00001	mg/L	-	< 0.00001	-
Chrysene	0.00001	mg/L	-	< 0.00001	-
Dibenz(a.h)anthracene	0.00001	mg/L	-	< 0.00001	-
Fluoranthene	0.00001	mg/L	-	< 0.00001	-
Fluorene	0.00001	mg/L	-	< 0.00001	-
Indeno(1.2.3-cd)pyrene	0.00001	mg/L	-	< 0.00001	-
Naphthalene	0.00001	mg/L	-	< 0.00001	-
Phenanthrene	0.00001	mg/L	-	< 0.00001	-
Pyrene	0.00001	mg/L	-	< 0.00001	-
Total PAH*	0.00001	mg/L	-	< 0.00001	-
2-Fluorobiphenyl (surr.)	1	%	-	51	-
p-Terphenyl-d14 (surr.)	1	%	-	66	-
Ammonia (as N)	0.01	mg/L	-	0.41	-
Chloride	1	mg/L	-	49	-
Cyanide (total)	0.004	mg/L	-	< 0.004	-
Ferrous Iron - Fe2+	0.05	mg/L	-	< 0.05	-
pH (at 25 °C)	0.1	pH Units	-	5.2	-
Sulphate (as SO4)	5	mg/L	-	56	-
Hardness mg equivalent CaCO3/L	5	mg/L	-	50	-
Alkalinity (speciated)					
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	-	250	-
Carbonate Alkalinity (as CaCO3)	10	mg/L	-	< 10	-
Hydroxide Alkalinity (as CaCO3)	20	mg/L	-	< 20	-
Total Alkalinity (as CaCO3)	20	mg/L	-	250	-
Alkali Metals					
Calcium	0.5	mg/L	-	15	-
Magnesium	0.5	mg/L	-	3.1	-
Potassium	0.5	mg/L	-	5.2	-
Sodium	0.5	mg/L	-	13	-

Client Sample ID			RB01	SRT_BH050	TRIP BLANK
Sample Matrix			Water	Water	Water
Eurofins Sample No.			S21-Ma34300	S21-Ma34301	S21-Ma34302
Date Sampled			Mar 18, 2021	Mar 18, 2021	Mar 17, 2021
Test/Reference	LOR	Unit			
Heavy Metals					
Arsenic	0.001	mg/L	< 0.001	-	-
Arsenic (filtered)	0.001	mg/L	-	< 0.001	-
Cadmium	0.0002	mg/L	< 0.0002	-	-
Cadmium (filtered)	0.0002	mg/L	-	< 0.0002	-
Chromium	0.001	mg/L	< 0.001	-	-
Chromium (filtered)	0.001	mg/L	-	< 0.001	-
Copper	0.001	mg/L	< 0.001	-	-
Copper (filtered)	0.001	mg/L	-	< 0.001	-
Lead	0.001	mg/L	< 0.001	-	-
Lead (filtered)	0.001	mg/L	-	< 0.001	-
Manganese (filtered)	0.005	mg/L	-	0.022	-
Mercury	0.0001	mg/L	< 0.0001	-	-
Mercury (filtered)	0.0001	mg/L	-	< 0.0001	-
Nickel	0.001	mg/L	< 0.001	-	-
Nickel (filtered)	0.001	mg/L	-	0.002	-
Zinc	0.005	mg/L	< 0.005	-	-
Zinc (filtered)	0.005	mg/L	-	0.010	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.
A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results.

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

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Melbourne	Mar 23, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Melbourne	Mar 19, 2021	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Mar 19, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Melbourne	Mar 19, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Eurofins Suite B6 (filtered metals)			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Melbourne	Mar 23, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Metals M8 filtered	Melbourne	Mar 19, 2021	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phenols (IWRG 621)			
Phenols (Halogenated)	Melbourne	Mar 23, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Phenols (non-Halogenated)	Melbourne	Mar 23, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
TRH - 2013 NEPM Fractions (after silica gel clean-up)	Melbourne	Mar 23, 2021	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
TRH - 1999 NEPM Fractions (after silica gel clean-up)	Melbourne	Mar 23, 2021	7 Days
- Method: TRH C6-C36 (Silica Gel Cleanup) - MGT 100A			
Polycyclic Aromatic Hydrocarbons (Trace level)	Melbourne	Mar 23, 2021	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water (trace)			
Ammonia (as N)	Melbourne	Mar 19, 2021	28 Days
- Method: APHA 4500-NH3 Ammonia Nitrogen by FIA			
Cyanide (total)	Melbourne	Mar 19, 2021	14 Days
- Method: LTM-INO-4020 Total Free WAD Cyanide by CFA			
Ferrous Iron - Fe2+	Melbourne	Mar 19, 2021	7 Days
- Method: LTM-INO-4190 Ferrous Iron in Water by Discrete Analyser			
pH (at 25 °C)	Melbourne	Mar 19, 2021	0 Hours
- Method: LTM-GEN-7090 pH in water by ISE			
Total Suspended Solids Dried at 103–105°C	Melbourne	Mar 19, 2021	7 Days
- Method: LTM-INO-4070 Analysis of Suspended Solids in Water by Gravimetry			
Metals M8	Melbourne	Mar 19, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Heavy Metals (filtered)	Melbourne	Mar 19, 2021	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Eurofins Suite B11E: Cl/SO4/Alkalinity			
Chloride	Melbourne	Mar 19, 2021	28 Days
- Method: LTM-INO-4090 Chloride by Discrete Analyser			
Sulphate (as SO4)	Melbourne	Mar 19, 2021	28 Days
- Method: LTM-INO-4110 Sulfate by Discrete Analyser			
Alkalinity (speciated)	Melbourne	Mar 19, 2021	14 Days
- Method: LTM-INO-4250 Alkalinity by Electrometric Titration			
Total Dissolved Solids Dried at 180°C ± 2°C	Melbourne	Mar 19, 2021	7 Days
- Method: LTM-INO-4170 Total Dissolved Solids in Water			
Eurofins Suite B11D: Na/K/Ca/Mg and Hardness			
Hardness mg equivalent CaCO3/L	Melbourne	Mar 19, 2021	28 Days
- Method: APHA 2340B Hardness by Calculation			

Description	Testing Site	Extracted	Holding Time
Alkali Metals	Melbourne	Mar 19, 2021	180 Days
- Method: LTM-MET-3010 Alkali Metals Sulfur Silicon Phosphorus by ICP-AES			

eurofins | Environment Testing

ABN: 50 005 085 521 web: www.eurofins.com.au email: EnviroSales@eurofins.com

Australia

Melbourne
6 Monterey Road
Dandenong South VIC 3175
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

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

New Zealand

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

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

Company Name:	GHD Pty Ltd NSW	**Order No.:**	2127234	**Received:**	Mar 18, 2021 4:09 PM
Address:	Level 15, 133 Castlereagh Street Sydney NSW 2000	**Report #:**	781353	**Due:**	Mar 25, 2021
		Phone:	02 9239 7100	**Priority:**	5 Day
		Fax:	02 9239 7199	**Contact Name:**	Henry Luo
Project Name:	CENTRAL				
Project ID:	2127234				

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Ammonia (as N)	CANCELLED	Cyanide (total)	Ferrous Iron - Fe2+	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X														
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**																
1	CSM_BH02	Mar 17, 2021		Water	S21-Ma34288	X		X	X	X	X	X		X	X	X		X	X	X	X
2	CSM_BH04	Mar 17, 2021		Water	S21-Ma34289	X		X	X	X	X	X		X	X	X		X	X	X	X
3	CSM_BH06	Mar 17, 2021		Water	S21-Ma34290	X		X	X	X	X	X		X	X	X		X	X	X	X
4	CSM_BH08	Mar 17, 2021		Water	S21-Ma34291	X		X	X	X	X	X		X	X	X		X	X	X	X
5	CSM_BH10S	Mar 17, 2021		Water	S21-Ma34292	X		X	X	X	X	X		X	X	X		X	X	X	X
6	SRT_BH047	Mar 18, 2021		Water	S21-Ma34293	X		X	X	X	X	X		X	X	X		X	X	X	X
7	SRT_BH052	Mar 18, 2021		Water	S21-Ma34294	X		X	X	X	X	X		X	X	X		X	X	X	X
8	GASW_BH10	Mar 17, 2021		Water	S21-Ma34295	X		X	X	X	X	X		X	X	X		X	X	X	X
9	GASW_BH11	Mar 18, 2021		Water	S21-Ma34296	X		X	X	X	X	X		X	X	X		X	X	X	X

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Phone : +61 2 4968 8448

New Zealand

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

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Received: Mar 18, 2021 4:09 PM
Due: Mar 25, 2021
Priority: 5 Day
Contact Name: Henry Luo

Eurofins Analytical Services Manager : Elvis Dsouza

Sample Detail						Ammonia (as N)	CANCELLED	Cyanide (total)	Ferrous Iron - Fe2+	Manganese (filtered)	pH (at 25 °C)	Total Suspended Solids Dried at 103–105°C	Metals M8	Phenols (IWRG 621)	TRH (after Silica Gel cleanup)	Eurofins Suite B6 (filtered metals)	BTEXN and Volatile TRH	Eurofins Suite B11D: Na/K/Ca/Mg and Hardness	Eurofins Suite B11E: Cl/SO4/Alkalinity	Polycyclic Aromatic Hydrocarbons (Trace level)	Total Dissolved Solids Dried at 180°C ± 2°C
Melbourne Laboratory - NATA Site # 1254 & 14271						X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217							X														
Brisbane Laboratory - NATA Site # 20794																					
Perth Laboratory - NATA Site # 23736																					
Mayfield Laboratory																					
External Laboratory																					
10	GASW_BH23	Mar 18, 2021		Water	S21-Ma34297	X		X	X	X	X	X		X	X	X		X	X	X	X
11	GASW_BH25A	Mar 18, 2021		Water	S21-Ma34298	X		X	X	X	X	X		X	X	X		X	X	X	X
12	QC01	Mar 17, 2021		Water	S21-Ma34299											X				X	
13	RB01	Mar 18, 2021		Water	S21-Ma34300								X								
14	SRT_BH050	Mar 18, 2021		Water	S21-Ma34301	X		X	X	X	X			X		X		X	X	X	
15	TRIP BLANK	Mar 17, 2021		Water	S21-Ma34302												X				
16	TRIP SPIKE	Mar 17, 2021		Water	S21-Ma34303		X														
Test Counts						12	1	12	12	12	12	11	1	12	11	13	1	12	12	13	11

Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

****NOTE:** pH duplicates are reported as a range NOT as RPD

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

Terms

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery.
CRM	Certified Reference Material - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	US Department of Defense Quality Systems Manual Version 5.3
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
TEQ	Toxic Equivalency Quotient

QC - Acceptance Criteria

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

Results <10 times the LOR : No Limit

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

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

Surrogate Recoveries: Recoveries must lie between 20-130% Phenols & 50-150% PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.3 where no positive PFAS results have been reported have been reviewed and no data was affected.

WA DWER (n=10): PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.01			0.01	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/L	< 0.003			0.003	Pass	
2.4-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
2.4.5-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.4.6-Trichlorophenol	mg/L	< 0.01			0.01	Pass	
2.6-Dichlorophenol	mg/L	< 0.003			0.003	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.01			0.01	Pass	
Pentachlorophenol	mg/L	< 0.01			0.01	Pass	
Tetrachlorophenols - Total	mg/L	< 0.03			0.03	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	mg/L	< 0.1			0.1	Pass	
2-Methyl-4.6-dinitrophenol	mg/L	< 0.03			0.03	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.003			0.003	Pass	
2-Nitrophenol	mg/L	< 0.01			0.01	Pass	
2.4-Dimethylphenol	mg/L	< 0.003			0.003	Pass	
2.4-Dinitrophenol	mg/L	< 0.03			0.03	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.006			0.006	Pass	
4-Nitrophenol	mg/L	< 0.03			0.03	Pass	
Dinoseb	mg/L	< 0.1			0.1	Pass	
Phenol	mg/L	< 0.003			0.003	Pass	
Method Blank							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH >C16-C34 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
TRH C10-C14 (after silica gel clean-up)	mg/L	< 0.05			0.05	Pass	
TRH C15-C28 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
TRH C29-C36 (after silica gel clean-up)	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	mg/L	< 0.00001			0.00001	Pass	
Acenaphthylene	mg/L	< 0.00001			0.00001	Pass	
Anthracene	mg/L	< 0.00001			0.00001	Pass	
Benz(a)anthracene	mg/L	< 0.00001			0.00001	Pass	
Benzo(a)pyrene	mg/L	< 0.00001			0.00001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.00001			0.00001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Chrysene	mg/L	< 0.00001			0.00001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.00001			0.00001	Pass	
Fluoranthene	mg/L	< 0.00001			0.00001	Pass	
Fluorene	mg/L	< 0.00001			0.00001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.00001			0.00001	Pass	
Naphthalene	mg/L	< 0.00001			0.00001	Pass	
Phenanthrene	mg/L	< 0.00001			0.00001	Pass	
Pyrene	mg/L	< 0.00001			0.00001	Pass	
Total PAH*	mg/L	-			0.00001	N/A	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Chloride	mg/L	< 1			1	Pass	
Cyanide (total)	mg/L	< 0.004			0.004	Pass	
Ferrous Iron - Fe2+	mg/L	< 0.05			0.05	Pass	
Sulphate (as SO4)	mg/L	< 5			5	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	mg/L	< 10			10	Pass	
Total Suspended Solids Dried at 103–105°C	mg/L	< 1			1	Pass	
Method Blank							
Alkalinity (speciated)							
Bicarbonate Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Carbonate Alkalinity (as CaCO3)	mg/L	< 10			10	Pass	
Hydroxide Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Total Alkalinity (as CaCO3)	mg/L	< 20			20	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.001			0.001	Pass	
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Cadmium	mg/L	< 0.0002			0.0002	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium	mg/L	< 0.001			0.001	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Copper	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.001			0.001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	110			70-130	Pass	
TRH C10-C14	%	119			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	104			70-130	Pass	
Toluene	%	117			70-130	Pass	
Ethylbenzene	%	107			70-130	Pass	
m&p-Xylenes	%	116			70-130	Pass	
Xylenes - Total*	%	115			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	95			70-130	Pass	
Naphthalene	%	111			70-130	Pass	
TRH C6-C10	%	118			70-130	Pass	
TRH C6-C10	%	96			70-130	Pass	
TRH >C10-C16	%	125			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated)							
2-Chlorophenol	%	79			30-130	Pass	
2.4-Dichlorophenol	%	85			30-130	Pass	
2.4.5-Trichlorophenol	%	85			30-130	Pass	
2.4.6-Trichlorophenol	%	71			30-130	Pass	
2.6-Dichlorophenol	%	85			30-130	Pass	
4-Chloro-3-methylphenol	%	73			30-130	Pass	
Pentachlorophenol	%	85			30-130	Pass	
Tetrachlorophenols - Total	%	84			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated)							
2-Cyclohexyl-4.6-dinitrophenol	%	100			30-130	Pass	
2-Methyl-4.6-dinitrophenol	%	88			30-130	Pass	
2-Methylphenol (o-Cresol)	%	77			30-130	Pass	
2-Nitrophenol	%	83			30-130	Pass	
2.4-Dimethylphenol	%	66			30-130	Pass	
2.4-Dinitrophenol	%	61			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	81			30-130	Pass	
4-Nitrophenol	%	80			30-130	Pass	
Dinoseb	%	107			30-130	Pass	
Phenol	%	65			30-130	Pass	
LCS - % Recovery							
TRH - 2013 NEPM Fractions (after silica gel clean-up)							
TRH >C10-C16 (after silica gel clean-up)	%	104			70-130	Pass	
LCS - % Recovery							
TRH - 1999 NEPM Fractions (after silica gel clean-up)							
TRH C10-C14 (after silica gel clean-up)	%	91			70-130	Pass	
LCS - % Recovery							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Polycyclic Aromatic Hydrocarbons (Trace level)							
Acenaphthene	%	81			70-130	Pass	
Acenaphthylene	%	83			70-130	Pass	
Anthracene	%	101			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	99			70-130	Pass	
Benzo(b&j)fluoranthene	%	105			70-130	Pass	
Benzo(g.h.i)perylene	%	90			70-130	Pass	
Benzo(k)fluoranthene	%	108			70-130	Pass	
Chrysene	%	106			70-130	Pass	
Dibenz(a.h)anthracene	%	96			70-130	Pass	
Fluoranthene	%	82			70-130	Pass	
Fluorene	%	86			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	96			70-130	Pass	
Phenanthrene	%	76			70-130	Pass	
Pyrene	%	81			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	98			70-130	Pass	
Chloride	%	99			70-130	Pass	
Cyanide (total)	%	102			70-130	Pass	
Ferrous Iron - Fe2+	%	108			70-130	Pass	
Sulphate (as SO4)	%	111			70-130	Pass	
Total Dissolved Solids Dried at 180°C ± 2°C	%	94			70-130	Pass	
Total Suspended Solids Dried at 103–105°C	%	106			70-130	Pass	
LCS - % Recovery							
Alkalinity (speciated)							
Carbonate Alkalinity (as CaCO3)	%	87			70-130	Pass	
Total Alkalinity (as CaCO3)	%	110			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	98			80-120	Pass	
Magnesium	%	90			80-120	Pass	
Potassium	%	89			80-120	Pass	
Sodium	%	96			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	98			80-120	Pass	
Copper	%	87			80-120	Pass	
Lead	%	97			80-120	Pass	
Mercury	%	88			80-120	Pass	
Nickel	%	99			80-120	Pass	
Zinc	%	101			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C10-C14	B21-Ma35775	NCP	%	109			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
TRH >C10-C16	B21-Ma35775	NCP	%	114			70-130	Pass	
Spike - % Recovery									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
				Result 1					
Total Suspended Solids Dried at 103–105°C	S21-Ma31559	NCP	%	126			70-130	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Potassium	M21-Ma38732	NCP	%	94			75-125	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S21-Ma34289	CP	%	104			75-125	Pass	
Cadmium (filtered)	S21-Ma34289	CP	%	105			75-125	Pass	
Chromium (filtered)	S21-Ma34289	CP	%	101			75-125	Pass	
Copper (filtered)	S21-Ma34289	CP	%	99			75-125	Pass	
Lead (filtered)	S21-Ma34289	CP	%	101			75-125	Pass	
Manganese (filtered)	S21-Ma34289	CP	%	58			75-125	Fail	Q08
Mercury (filtered)	S21-Ma34289	CP	%	68			75-125	Fail	Q08
Nickel (filtered)	S21-Ma34289	CP	%	96			75-125	Pass	
Zinc (filtered)	S21-Ma34289	CP	%	98			75-125	Pass	
Spike - % Recovery									
Alkali Metals				Result 1					
Calcium	S21-Ma34290	CP	%	94			75-125	Pass	
Magnesium	S21-Ma34290	CP	%	93			75-125	Pass	
Sodium	S21-Ma34290	CP	%	97			75-125	Pass	
Spike - % Recovery									
				Result 1					
Ammonia (as N)	S21-Ma34293	CP	%	108			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic (filtered)	S21-Ma34293	CP	%	92			75-125	Pass	
Cadmium (filtered)	S21-Ma34293	CP	%	90			75-125	Pass	
Chromium (filtered)	S21-Ma34293	CP	%	87			75-125	Pass	
Copper (filtered)	S21-Ma34293	CP	%	70			75-125	Fail	Q08
Lead (filtered)	S21-Ma34293	CP	%	88			75-125	Pass	
Manganese (filtered)	S21-Ma34293	CP	%	92			75-125	Pass	
Mercury (filtered)	S21-Ma34293	CP	%	82			75-125	Pass	
Nickel (filtered)	S21-Ma34293	CP	%	86			75-125	Pass	
Zinc (filtered)	S21-Ma34293	CP	%	89			75-125	Pass	
Spike - % Recovery									
				Result 1					
Cyanide (total)	S21-Ma34294	CP	%	97			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S21-Ma34300	CP	%	103			75-125	Pass	
Cadmium	S21-Ma34300	CP	%	103			75-125	Pass	
Chromium	S21-Ma34300	CP	%	103			75-125	Pass	
Copper	S21-Ma34300	CP	%	86			75-125	Pass	
Lead	S21-Ma34300	CP	%	101			75-125	Pass	
Mercury	S21-Ma34300	CP	%	98			75-125	Pass	
Nickel	S21-Ma34300	CP	%	103			75-125	Pass	
Zinc	S21-Ma34300	CP	%	107			75-125	Pass	
Test	**Lab Sample ID**	**QA Source**	**Units**	**Result 1**			**Acceptance Limits**	**Pass Limits**	**Qualifying Code**
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	B21-Ma33448	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28	B21-Ma33448	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36	B21-Ma33448	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	

Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	B21-Ma33448	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH >C16-C34	B21-Ma33448	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH >C34-C40	B21-Ma33448	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Chloride	M21-Ma38656	NCP	mg/L	49	49	<1	30%	Pass	
Duplicate									
Alkali Metals				Result 1	Result 2	RPD			
Potassium	M21-Ma38732	NCP	mg/L	26	27	5.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S21-Ma34289	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S21-Ma34289	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S21-Ma34289	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S21-Ma34289	CP	mg/L	0.002	0.002	3.0	30%	Pass	
Lead (filtered)	S21-Ma34289	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	S21-Ma34289	CP	mg/L	0.42	0.41	2.0	30%	Pass	
Mercury (filtered)	S21-Ma34289	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S21-Ma34289	CP	mg/L	0.026	0.027	4.0	30%	Pass	
Zinc (filtered)	S21-Ma34289	CP	mg/L	0.027	0.025	6.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Dissolved Solids Dried at 180°C ± 2°C	S21-Ma34292	CP	mg/L	110	110	1.8	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	S21-Ma34293	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Cyanide (total)	S21-Ma34293	CP	mg/L	< 0.004	< 0.004	<1	30%	Pass	
pH (at 25 °C)	S21-Ma34293	CP	pH Units	6.7	6.8	pass	30%	Pass	
Duplicate									
Alkalinity (speciated)				Result 1	Result 2	RPD			
Bicarbonate Alkalinity (as CaCO3)	S21-Ma34293	CP	mg/L	1200	1400	16	30%	Pass	
Carbonate Alkalinity (as CaCO3)	S21-Ma34293	CP	mg/L	< 10	< 10	<1	30%	Pass	
Hydroxide Alkalinity (as CaCO3)	S21-Ma34293	CP	mg/L	< 20	< 20	<1	30%	Pass	
Total Alkalinity (as CaCO3)	S21-Ma34293	CP	mg/L	1200	1400	16	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S21-Ma34293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium (filtered)	S21-Ma34293	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S21-Ma34293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	S21-Ma34293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead (filtered)	S21-Ma34293	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	S21-Ma34293	CP	mg/L	0.023	0.022	2.0	30%	Pass	
Mercury (filtered)	S21-Ma34293	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel (filtered)	S21-Ma34293	CP	mg/L	0.005	0.005	2.0	30%	Pass	
Zinc (filtered)	S21-Ma34293	CP	mg/L	0.044	0.044	1.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Total Suspended Solids Dried at 103–105°C	S21-Ma34296	CP	mg/L	7200	8200	32	30%	Fail	Q02
Duplicate									
				Result 1	Result 2	RPD			
Ferrous Iron - Fe2+	S21-Ma34297	CP	mg/L	5.4	5.3	2.0	30%	Pass	
Sulphate (as SO4)	S21-Ma34297	CP	mg/L	98	96	1.0	30%	Pass	

Duplicate									
Phenols (Halogenated)				Result 1	Result 2	RPD			
2-Chlorophenol	S21-Ma34298	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dichlorophenol	S21-Ma34298	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4.5-Trichlorophenol	S21-Ma34298	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4.6-Trichlorophenol	S21-Ma34298	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.6-Dichlorophenol	S21-Ma34298	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
4-Chloro-3-methylphenol	S21-Ma34298	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Pentachlorophenol	S21-Ma34298	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Tetrachlorophenols - Total	S21-Ma34298	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)				Result 1	Result 2	RPD			
2-Cyclohexyl-4.6-dinitrophenol	S21-Ma34298	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
2-Methyl-4.6-dinitrophenol	S21-Ma34298	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
2-Methylphenol (o-Cresol)	S21-Ma34298	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2-Nitrophenol	S21-Ma34298	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
2.4-Dimethylphenol	S21-Ma34298	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
2.4-Dinitrophenol	S21-Ma34298	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	S21-Ma34298	CP	mg/L	< 0.006	< 0.006	<1	30%	Pass	
4-Nitrophenol	S21-Ma34298	CP	mg/L	< 0.03	< 0.03	<1	30%	Pass	
Dinoseb	S21-Ma34298	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Phenol	S21-Ma34298	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons (Trace level)				Result 1	Result 2	RPD			
Acenaphthene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Acenaphthylene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Anthracene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benz(a)anthracene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(a)pyrene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(g.h.i)perylene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Benzo(k)fluoranthene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Chrysene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Dibenz(a.h)anthracene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluoranthene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Fluorene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Naphthalene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Phenanthrene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Pyrene	S21-Ma34298	CP	mg/L	< 0.00001	< 0.00001	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S21-Ma34300	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cadmium	S21-Ma34300	CP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium	S21-Ma34300	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper	S21-Ma34300	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Lead	S21-Ma34300	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Mercury	S21-Ma34300	CP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S21-Ma34300	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Zinc	S21-Ma34300	CP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

This report has been revised (V2) following repeat analysis.

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q02	The duplicate %RPD is outside the recommended acceptance criteria. Further analysis indicates sample heterogeneity as the cause
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Elvis Dsouza	Analytical Services Manager
Emily Rosenberg	Senior Analyst-Metal (VIC)
Joseph Edouard	Senior Analyst-Organic (VIC)
Scott Beddoes	Senior Analyst-Inorganic (VIC)
Vivian Wang	Senior Analyst-Volatile (VIC)

Glenn Jackson
General Manager

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

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

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

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2037870**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 28-Oct-2020 12:12
Order number	: 2127234	Date Analysis Commenced	: 30-Oct-2020
C-O-C number	: ----	Issue Date	: 05-Nov-2020 14:31
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP132: Where reported, Total PAH reported as the sum of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	QC02	----	----	----	----
				Client sampling date / time	27-Oct-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2037870-001	--------	--------	--------	--------	
				Result	----	----	----	----	
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L	<0.001	----	----	----	----	
Cadmium	7440-43-9	0.0001	mg/L	**0.0002**	----	----	----	----	
Chromium	7440-47-3	0.001	mg/L	**0.001**	----	----	----	----	
Copper	7440-50-8	0.001	mg/L	**0.146**	----	----	----	----	
Nickel	7440-02-0	0.001	mg/L	**0.030**	----	----	----	----	
Lead	7439-92-1	0.001	mg/L	**0.008**	----	----	----	----	
Zinc	7440-66-6	0.005	mg/L	**0.312**	----	----	----	----	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----	
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L	<20	----	----	----	----	
C10 - C14 Fraction	----	50	µg/L	<50	----	----	----	----	
C15 - C28 Fraction	----	100	µg/L	<100	----	----	----	----	
C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----	
^ **C10 - C36 Fraction (sum)**	----	50	µg/L	<50	----	----	----	----	
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L	<20	----	----	----	----	
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L	<20	----	----	----	----	
>C10 - C16 Fraction	----	100	µg/L	<100	----	----	----	----	
>C16 - C34 Fraction	----	100	µg/L	<100	----	----	----	----	
>C34 - C40 Fraction	----	100	µg/L	<100	----	----	----	----	
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L	<100	----	----	----	----	
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L	<100	----	----	----	----	
EP080: BTEXN									
Benzene	71-43-2	1	µg/L	<1	----	----	----	----	
Toluene	108-88-3	2	µg/L	<2	----	----	----	----	
Ethylbenzene	100-41-4	2	µg/L	<2	----	----	----	----	
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	----	----	----	
ortho-Xylene	95-47-6	2	µg/L	<2	----	----	----	----	
^ **Total Xylenes**	----	2	µg/L	<2	----	----	----	----	
^ **Sum of BTEX**	----	1	µg/L	<1	----	----	----	----	
Naphthalene	91-20-3	5	µg/L	<5	----	----	----	----	

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	QC02	----	----	----	----
				Client sampling date / time	27-Oct-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2037870-001	--------	--------	--------	--------
					Result	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	----	----	----	----
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	----	----	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	----	----	----	----
Acenaphthene	83-32-9	0.1	µg/L		<0.1	----	----	----	----
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	----	----	----	----
Anthracene	120-12-7	0.1	µg/L		<0.1	----	----	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L		**0.2**	----	----	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L		**0.33**	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L		**0.4**	----	----	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L		**0.2**	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		**0.3**	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		**0.1**	----	----	----	----
Chrysene	218-01-9	0.1	µg/L		**0.2**	----	----	----	----
Coronene	191-07-1	0.1	µg/L		<0.1	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	----	----	----	----
Fluoranthene	206-44-0	0.1	µg/L		**0.3**	----	----	----	----
Fluorene	86-73-7	0.1	µg/L		<0.1	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		**0.2**	----	----	----	----
Naphthalene	91-20-3	0.1	µg/L		<0.1	----	----	----	----
Perylene	198-55-0	0.1	µg/L		<0.1	----	----	----	----
Phenanthrene	85-01-8	0.1	µg/L		<0.1	----	----	----	----
Pyrene	129-00-0	0.1	µg/L		**0.3**	----	----	----	----
^ Sum of PAHs	----	0.05	µg/L		**2.3**	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.05	µg/L		**0.4**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**111**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**113**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**120**	----	----	----	----
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**73.4**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%		**75.4**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**79.5**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128
EP132T: Base/Neutral Extractable Surrogates			
2-Fluorobiphenyl	321-60-8	43	135
Anthracene-d10	1719-06-8	48	138
4-Terphenyl-d14	1718-51-0	48	144

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2037870**	Page	: 1 of 6
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 28-Oct-2020
Order number	: 2127234	Date Analysis Commenced	: 30-Oct-2020
C-O-C number	: ----	Issue Date	: 05-Nov-2020
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Wisam Marassa	Inorganics Coordinator	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3341798)									
ES2037870-001	QC02	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0002	0.0002	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.146	0.151	2.99	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	0.008	0.008	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.030	0.030	0.00	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.312	0.319	2.45	0% - 20%
ES2038056-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0003	0.0004	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.037	0.037	0.00	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	0.027	0.027	0.00	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.032	0.031	0.00	0% - 20%
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.115	0.115	0.00	0% - 20%
EG035F: Dissolved Mercury by FIMS (QC Lot: 3341799)									
ES2038010-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.1 µg/L	<0.0001	0.00	No Limit
ES2038100-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3336846)									
ES2037870-001	QC02	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES2037875-013	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<0.02 mg/L	<20	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3336846)									
ES2037870-001	QC02	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES2037875-013	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<0.02 mg/L	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 3336846)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEXN (QC Lot: 3336846) - continued									
ES2037870-001	QC02	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
ES2037875-013	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<0.001 mg/L	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<0.002 mg/L	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<0.005 mg/L	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3341798)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	94.6	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	94.6	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	94.0	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	93.5	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	94.0	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	92.7	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	93.4	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 3341799)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	95.6	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3335538)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	79.8	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	80.7	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	78.0	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3336846)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	92.0	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3335538)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	70.9	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	89.9	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	68.7	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3336846)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	92.9	75.0	127
EP080: BTEXN (QCLot: 3336846)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	104	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	101	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	98.7	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	98.0	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	98.0	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	79.2	70.0	120
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3336882)								
EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	2 µg/L	87.2	60.0	120
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	2 µg/L	75.3	59.0	123
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	2 µg/L	86.8	36.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3336882) - continued								
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	2 µg/L	79.3	64.0	122
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	2 µg/L	80.6	64.0	126
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	2 µg/L	80.4	65.0	127
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	2 µg/L	88.5	64.0	130
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	87.2	64.0	126
EP132: Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L	<0.1	2 µg/L	90.1	62.0	126
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	2 µg/L	87.3	62.0	126
EP132: Benzo(g.h.i)perylene	191-24-2	0.1	µg/L	<0.1	2 µg/L	89.5	56.0	126
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	2 µg/L	87.2	68.0	130
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	2 µg/L	86.3	66.0	130
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	2 µg/L	91.8	35.0	133
EP132: Dibenz(a.h)anthracene	53-70-3	0.1	µg/L	<0.1	2 µg/L	88.2	58.0	128
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	2 µg/L	83.7	65.0	127
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	2 µg/L	80.3	64.0	124
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1	2 µg/L	90.0	57.0	127
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	2 µg/L	74.3	54.0	128
EP132: Perylene	198-55-0	0.1	µg/L	<0.1	2 µg/L	87.2	66.0	130
EP132: Phenanthrene	85-01-8	0.1	µg/L	<0.1	2 µg/L	80.2	65.0	129
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	2 µg/L	83.2	66.0	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3341798)							
ES2038002-014	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	92.6	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	94.4	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	87.4	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	87.6	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	87.9	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	91.9	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	90.4	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 3341799)							
ES2037870-001	QC02	EG035F: Mercury	7439-97-6	0.01 mg/L	79.7	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3336846)							
ES2037870-001	QC02	EP080: C6 - C9 Fraction	----	325 µg/L	112	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3336846)							
ES2037870-001	QC02	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	109	70.0	130
EP080: BTEXN (QCLot: 3336846)							
ES2037870-001	QC02	EP080: Benzene	71-43-2	25 µg/L	102	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	101	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	105	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	101	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	103	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	96.4	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2037870**	Page	: 1 of 4
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 28-Oct-2020
Site	: 21-27234 Central	Issue Date	: 05-Nov-2020
Sampler	: TERRY NHAM	No. of samples received	: 1
Order number	: 2127234	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	5	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	3	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	5	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	3	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
QC02	**27-Oct-2020**	**----**	----	----	**03-Nov-2020**	25-Apr-2021	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
QC02	**27-Oct-2020**	**----**	----	----	**03-Nov-2020**	24-Nov-2020	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**27-Oct-2020**	**30-Oct-2020**	03-Nov-2020	✓	**31-Oct-2020**	09-Dec-2020	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**27-Oct-2020**	**03-Nov-2020**	10-Nov-2020	✓	**03-Nov-2020**	10-Nov-2020	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**27-Oct-2020**	**30-Oct-2020**	03-Nov-2020	✓	**31-Oct-2020**	09-Dec-2020	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**27-Oct-2020**	**03-Nov-2020**	10-Nov-2020	✓	**03-Nov-2020**	10-Nov-2020	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**27-Oct-2020**	**03-Nov-2020**	10-Nov-2020	✓	**03-Nov-2020**	10-Nov-2020	✓
EP132B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP132)							
QC02	**27-Oct-2020**	**02-Nov-2020**	03-Nov-2020	✓	**04-Nov-2020**	12-Dec-2020	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	18	**11.11**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	5	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	3	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	5	**20.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	3	**33.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	18	**5.56**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	5	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	3	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	WATER	In house: Referenced to USEPA 3640 (GPC Cleanup), 8270 GCMS Capiliary column, SIM mode. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Sep. Funnel Extraction /Acetylation of Phenolic Compounds	ORG14-AC	WATER	In house: Referenced to USEPA 3510 (Extraction) / In-house (Acetylation): A 1L sample is extracted into dichloromethane and concentrated to 1 mL with echange into cyclohexane. Phenolic compounds are reacted with acetic anhydride to yield phenyl acetates suitable for ultra-trace analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for sparging.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2041428**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 23-Nov-2020 13:30
Order number	: 2127234	Date Analysis Commenced	: 25-Nov-2020
C-O-C number	: ----	Issue Date	: 30-Nov-2020 16:18
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP132: Where reported, Total PAH reported as the sum of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC02	----	----	----	----
				Sampling date / time	23-Nov-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2041428-001	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		**0.0004**	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		**0.087**	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		**0.013**	----	----	----	----
Lead	7439-92-1	0.001	mg/L		**0.003**	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.153**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ **Total Xylenes**	----	2	µg/L		<2	----	----	----	----
^ **Sum of BTEX**	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC02	----	----	----	----
				Sampling date / time	23-Nov-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2041428-001	--------	--------	--------	--------
					Result	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	----	----	----	----
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	----	----	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	----	----	----	----
Acenaphthene	83-32-9	0.1	µg/L		<0.1	----	----	----	----
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	----	----	----	----
Anthracene	120-12-7	0.1	µg/L		<0.1	----	----	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	----	----	----	----
Chrysene	218-01-9	0.1	µg/L		<0.1	----	----	----	----
Coronene	191-07-1	0.1	µg/L		<0.1	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	----	----	----	----
Fluoranthene	206-44-0	0.1	µg/L		<0.1	----	----	----	----
Fluorene	86-73-7	0.1	µg/L		<0.1	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	----	----	----	----
Naphthalene	91-20-3	0.1	µg/L		<0.1	----	----	----	----
Perylene	198-55-0	0.1	µg/L		<0.1	----	----	----	----
Phenanthrene	85-01-8	0.1	µg/L		<0.1	----	----	----	----
Pyrene	129-00-0	0.1	µg/L		<0.1	----	----	----	----
^ Sum of PAHs	----	0.05	µg/L		<0.05	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.05	µg/L		<0.05	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**91.5**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**96.0**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**98.6**	----	----	----	----
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**46.6**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%		**52.5**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**49.1**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128
EP132T: Base/Neutral Extractable Surrogates			
2-Fluorobiphenyl	321-60-8	43	135
Anthracene-d10	1719-06-8	48	138
4-Terphenyl-d14	1718-51-0	48	144

QUALITY CONTROL REPORT

Work Order	: **ES2041428**	Page	: 1 of 6
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 23-Nov-2020
Order number	: 2127234	Date Analysis Commenced	: 25-Nov-2020
C-O-C number	: ----	Issue Date	: 30-Nov-2020
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3387298)									
ES2041973-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.006	0.005	0.00	No Limit
ES2041419-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.001	0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 3387299)									
ES2041419-003	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES2041428-001	QC02	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3383688)									
ES2041479-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES2041503-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3383688)									
ES2041479-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES2041503-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 3383688)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEXN (QC Lot: 3383688) - continued									
ES2041479-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
ES2041503-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	2	2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3387298)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	93.4	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	91.1	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	90.4	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	88.8	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	91.8	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	89.3	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	94.0	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 3387299)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	101	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3381870)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	71.6	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	83.0	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	84.8	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3383688)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	86.5	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3381870)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	83.0	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	80.3	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	75.1	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3383688)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	87.5	75.0	127
EP080: BTEXN (QCLot: 3383688)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	92.9	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	97.0	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	97.0	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	98.0	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	101	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	95.8	70.0	120
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3383966)								
EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	2 µg/L	77.9	60.0	120
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	2 µg/L	75.1	59.0	123
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	2 µg/L	91.6	36.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3383966) - continued								
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	2 µg/L	70.3	64.0	122
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	2 µg/L	83.8	64.0	126
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	2 µg/L	75.8	65.0	127
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	2 µg/L	80.2	64.0	130
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	77.9	64.0	126
EP132: Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L	<0.1	2 µg/L	78.9	62.0	126
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	2 µg/L	77.5	62.0	126
EP132: Benzo(g.h.i)perylene	191-24-2	0.1	µg/L	<0.1	2 µg/L	77.7	56.0	126
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	2 µg/L	78.9	68.0	130
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	2 µg/L	80.1	66.0	130
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	2 µg/L	74.1	35.0	133
EP132: Dibenz(a.h)anthracene	53-70-3	0.1	µg/L	<0.1	2 µg/L	76.7	58.0	128
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	2 µg/L	67.2	65.0	127
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	2 µg/L	73.8	64.0	124
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1	2 µg/L	77.5	57.0	127
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	2 µg/L	56.2	54.0	128
EP132: Perylene	198-55-0	0.1	µg/L	<0.1	2 µg/L	78.8	66.0	130
EP132: Phenanthrene	85-01-8	0.1	µg/L	<0.1	2 µg/L	74.9	65.0	129
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	2 µg/L	71.1	66.0	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3387298)							
ES2041419-004	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	91.9	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	92.7	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	89.8	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	89.7	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	90.1	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	90.5	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	92.3	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 3387299)							
ES2041419-002	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	87.9	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3383688)							
ES2041479-001	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	98.4	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3383688)							
ES2041479-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	97.0	70.0	130
EP080: BTEXN (QCLot: 3383688)							
ES2041479-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	98.1	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	97.6	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	99.0	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	98.8	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	102	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	97.9	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2041428**	Page	: 1 of 4
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 23-Nov-2020
Site	: 21-27234 Central	Issue Date	: 30-Nov-2020
Sampler	: TERRY NHAM	No. of samples received	: 1
Order number	: 2127234	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	8	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	8	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
QC02	**23-Nov-2020**	**----**	----	----	**27-Nov-2020**	22-May-2021	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
QC02	**23-Nov-2020**	**----**	----	----	**27-Nov-2020**	21-Dec-2020	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**23-Nov-2020**	**25-Nov-2020**	30-Nov-2020	✓	**25-Nov-2020**	04-Jan-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**23-Nov-2020**	**27-Nov-2020**	07-Dec-2020	✓	**27-Nov-2020**	07-Dec-2020	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**23-Nov-2020**	**25-Nov-2020**	30-Nov-2020	✓	**25-Nov-2020**	04-Jan-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**23-Nov-2020**	**27-Nov-2020**	07-Dec-2020	✓	**27-Nov-2020**	07-Dec-2020	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**23-Nov-2020**	**27-Nov-2020**	07-Dec-2020	✓	**27-Nov-2020**	07-Dec-2020	✓
EP132B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP132)							
QC02	**23-Nov-2020**	**26-Nov-2020**	30-Nov-2020	✓	**27-Nov-2020**	05-Jan-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	11	**18.18**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	8	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	11	**9.09**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	8	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	WATER	In house: Referenced to USEPA 3640 (GPC Cleanup), 8270 GCMS Capiliary column, SIM mode. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Sep. Funnel Extraction /Acetylation of Phenolic Compounds	ORG14-AC	WATER	In house: Referenced to USEPA 3510 (Extraction) / In-house (Acetylation): A 1L sample is extracted into dichloromethane and concentrated to 1 mL with echange into cyclohexane. Phenolic compounds are reacted with acetic anhydride to yield phenyl acetates suitable for ultra-trace analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

30/11/20

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com
☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5 Rose Gum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 024423 2063 E: nowra@alsglobal.com
☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townesville.environmental@alsglobal.com
☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500. Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: GHD Pty Ltd	TURNAROUND REQUIREMENTS ☐ Standard TAT (List due date):	FOR LABORATORY USE ONLY (Circle)
OFFICE: Sydney	(Standard TAT may be longer for some tests e.g., Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21-27234 Central	ALS QUOTE NO.: EN/005/19	Free ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 2127234	COC SEQUENCE NUMBER (Circle) COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Henry Luo	CONTACT PH: 02 9239 7044 / 0414 090 002 OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Terry Nham	SAMPLER MOBILE: 0403 251 883	
COC emailed to ALS? (YES / NO)	EDD FORMAT (or default): ESDAT	
Email Reports to: henry.luo@ghd.com terry.nham@ghd.com jake.vickers@ghd.com		
Email Invoice to (will default to PM if no other addresses are listed):		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Terry Nham (GHD)	[illegible] M.		[illegible]
DATE/TIME:	DATE/TIME: 23/11/2020 1330	DATE/TIME:	DATE/TIME: 23/11/2015 [illegible]

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).		
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	TRH / BTEXN / 8 Metals (W-5)	PAH - Ultra Trace (EP132B)	
1	QC02		Water		9	X	X	
				TOTAL				

Environmental Division Sydney
Work Order Reference
ES2041428

Telephone : +61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2100056**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 04-Jan-2021 17:30
Order number	: 2127234	Date Analysis Commenced	: 05-Jan-2021
C-O-C number	: ----	Issue Date	: 11-Jan-2021 13:40
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP132: Where reported, Total PAH reported as the sum of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SD01	----	----	----	----
				Sampling date / time	21-Dec-2020 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2100056-001	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		**0.001**	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		**0.022**	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.048**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ **Total Xylenes**	----	2	µg/L		<2	----	----	----	----
^ **Sum of BTEX**	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----

Analytical Results

Sub-Matrix: **WATER** (Matrix: **WATER**)				Sample ID	SD01	----	----	----	----
				Sampling date / time	21-Dec-2020 00:00	----	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*		**ES2100056-001**	--------	--------	--------	--------
					Result	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**121**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**118**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**112**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128

QUALITY CONTROL REPORT

Work Order	: **ES2100056**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 04-Jan-2021
Order number	: 2127234	Date Analysis Commenced	: 05-Jan-2021
C-O-C number	: ----	Issue Date	: 11-Jan-2021
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3448130)									
ES2100020-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.007	0.008	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.006	<0.005	19.7	No Limit
ES2100058-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0010	<0.0010	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.010	<0.010	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.010	<0.010	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.010	<0.010	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.010	<0.010	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.010	<0.010	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.050	<0.050	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 3448129)									
ES2100020-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES2100020-006	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3448336)									
ES2100147-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3448336)									
ES2100147-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 3448336)									
ES2100147-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP080: BTEXN (QC Lot: 3448336) - continued									
ES2100147-001	Anonymous	EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3448130)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	94.5	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	90.8	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	97.3	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	97.5	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	90.1	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	90.4	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	91.8	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 3448129)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	94.6	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3448336)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	85.5	75.0	127
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3448599)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	70.6	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	84.5	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	77.0	56.0	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3448336)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	88.2	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3448599)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	72.8	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	92.6	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	81.1	61.5	121
EP080: BTEXN (QCLot: 3448336)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	99.7	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	94.4	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	97.6	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	96.1	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	97.4	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	97.6	70.0	120

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EG020F: Dissolved Metals by ICP-MS (QCLot: 3448130)							
ES2100019-001	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	85.2	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	85.8	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	91.9	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	90.6	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	86.7	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	90.0	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	88.2	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 3448129)							
ES2100013-015	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	75.4	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3448336)							
ES2100147-001	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	98.3	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3448336)							
ES2100147-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	96.8	70.0	130
EP080: BTEXN (QCLot: 3448336)							
ES2100147-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	93.3	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	93.3	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	94.4	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	94.8	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	98.1	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	102	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2100056**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 04-Jan-2021
Site	: 21-27234 Central	Issue Date	: 11-Jan-2021
Sampler	: TERRY NHAM	No. of samples received	: 1
Order number	: 2127234	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **Analysis Holding Time Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Analysis Holding Time Compliance

Matrix: **WATER**

Method / Container / Client Sample ID(s)	Extraction / Preparation			Analysis		
	Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EP080/071: Total Petroleum Hydrocarbons						
Amber Glass Bottle - Unpreserved						
SD01	06-Jan-2021	28-Dec-2020	**9**	----	----	----
Amber VOC Vial - Sulfuric Acid						
SD01	05-Jan-2021	04-Jan-2021	**1**	05-Jan-2021	04-Jan-2021	**1**
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions						
Amber Glass Bottle - Unpreserved						
SD01	06-Jan-2021	28-Dec-2020	**9**	----	----	----
Amber VOC Vial - Sulfuric Acid						
SD01	05-Jan-2021	04-Jan-2021	**1**	05-Jan-2021	04-Jan-2021	**1**
EP080: BTEXN						
Amber VOC Vial - Sulfuric Acid						
SD01	05-Jan-2021	04-Jan-2021	**1**	05-Jan-2021	04-Jan-2021	**1**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count		Rate (%)		Quality Control Specification
	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
TRH - Semivolatile Fraction	0	4	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
TRH - Semivolatile Fraction	0	4	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
SD01	**21-Dec-2020**	**----**	----	----	**05-Jan-2021**	19-Jun-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
SD01	**21-Dec-2020**	**----**	----	----	**06-Jan-2021**	18-Jan-2021	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
SD01	**21-Dec-2020**	**06-Jan-2021**	28-Dec-2020	×	**06-Jan-2021**	15-Feb-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
SD01	**21-Dec-2020**	**05-Jan-2021**	04-Jan-2021	×	**05-Jan-2021**	04-Jan-2021	×
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
SD01	**21-Dec-2020**	**06-Jan-2021**	28-Dec-2020	×	**06-Jan-2021**	15-Feb-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
SD01	**21-Dec-2020**	**05-Jan-2021**	04-Jan-2021	×	**05-Jan-2021**	04-Jan-2021	×
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
SD01	**21-Dec-2020**	**05-Jan-2021**	04-Jan-2021	×	**05-Jan-2021**	04-Jan-2021	×

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	19	**10.53**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	4	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	8	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	4	**25.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	19	**5.26**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	4	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	8	**12.50**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Sep. Funnel Extraction /Acetylation of Phenolic Compounds	ORG14-AC	WATER	In house: Referenced to USEPA 3510 (Extraction) / In-house (Acetylation): A 1L sample is extracted into dichloromethane and concentrated to 1 mL with echange into cyclohexane. Phenolic compounds are reacted with acetic anhydride to yield phenyl acetates suitable for ultra-trace analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

ALS Environmental

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com
☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5 Rose Gum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 024423 2063 E: nowra@alsglobal.com
☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townsville.environmental@alsglobal.com
☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: GHD Pty Ltd

OFFICE: Sydney

PROJECT: 21-27234 Central

ORDER NUMBER: 2127234

PROJECT MANAGER: Henry Luo — CONTACT PH: 02 9239 7044 / 0414 090 002

SAMPLER: Terry Nham — SAMPLER MOBILE: 0403 251 883

COC emailed to ALS? (YES / NO) — EDD FORMAT (or default): ESDAT

Email Reports to: henry.luo@ghd.com terry.nham@ghd.com jake.vickers@ghd.com

Email Invoice to (will default to PM if no other addresses are listed):

TURNAROUND REQUIREMENTS: ☐ Standard TAT (List due date):
(Standard TAT may be longer for some tests e.g.. Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):

ALS QUOTE NO.: EN/005/19

COC SEQUENCE NUMBER (Circle)
COC: 1 2 3 4 5 6 7
OF: 1 2 3 4 5 6 7

FOR LABORATORY USE ONLY (Circle)
Custody Seal Intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comment:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Terry Nham (GHD)	HJ 5:30pm		
DATE/TIME:	DATE/TIME: 4.1.21	DATE/TIME:	DATE/TIME:

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price)
Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION																
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	TRH / BTEXN / 8 Metals (W-6)	PAH - Ultra Trace (EP132B)													
	SD01	21.12.20	Water		9	X	X													
				TOTAL																

Environmental Division
Sydney
Work Order Reference
ES2100056
Telephone : + 61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2102832**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 28-Jan-2021 14:15
Order number	: 2127234	Date Analysis Commenced	: 01-Feb-2021
C-O-C number	: ----	Issue Date	: 04-Feb-2021 14:37
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP132: Where reported, Total PAH reported as the sum of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC01	----	----	----	----
				Sampling date / time	27-Jan-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2102832-001	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		**0.008**	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		**0.014**	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.028**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ **Total Xylenes**	----	2	µg/L		<2	----	----	----	----
^ **Sum of BTEX**	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC01	----	----	----	----
				Sampling date / time	27-Jan-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2102832-001	--------	--------	--------	--------
					Result	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	----	----	----	----
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	----	----	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	----	----	----	----
Acenaphthene	83-32-9	0.1	µg/L		<0.1	----	----	----	----
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	----	----	----	----
Anthracene	120-12-7	0.1	µg/L		<0.1	----	----	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	----	----	----	----
Chrysene	218-01-9	0.1	µg/L		<0.1	----	----	----	----
Coronene	191-07-1	0.1	µg/L		<0.1	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	----	----	----	----
Fluoranthene	206-44-0	0.1	µg/L		<0.1	----	----	----	----
Fluorene	86-73-7	0.1	µg/L		<0.1	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	----	----	----	----
Naphthalene	91-20-3	0.1	µg/L		<0.1	----	----	----	----
Perylene	198-55-0	0.1	µg/L		<0.1	----	----	----	----
Phenanthrene	85-01-8	0.1	µg/L		<0.1	----	----	----	----
Pyrene	129-00-0	0.1	µg/L		<0.1	----	----	----	----
^ Sum of PAHs	----	0.05	µg/L		<0.05	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.05	µg/L		<0.05	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**133**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**108**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**92.1**	----	----	----	----
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**40.2**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%		**62.6**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**63.4**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128
EP132T: Base/Neutral Extractable Surrogates			
2-Fluorobiphenyl	321-60-8	43	135
Anthracene-d10	1719-06-8	48	138
4-Terphenyl-d14	1718-51-0	48	144

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2102832**	Page	: 1 of 7
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 28-Jan-2021
Order number	: 2127234	Date Analysis Commenced	: 01-Feb-2021
C-O-C number	: ----	Issue Date	: 04-Feb-2021
Sampler	: TERRY NHAM		
Site	: 21-27234 Central		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3488781)									
ES2102884-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
ES2103212-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 3488778)									
ES2102676-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES2102736-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3484643)									
ES2102832-001	QC01	EP071: C15 - C28 Fraction	----	100	µg/L	<100	<100	0.00	No Limit
		EP071: C10 - C14 Fraction	----	50	µg/L	<50	<50	0.00	No Limit
		EP071: C29 - C36 Fraction	----	50	µg/L	<50	<50	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3485609)									
ES2102429-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES2102770-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3484643)									
ES2102832-001	QC01	EP071: >C10 - C16 Fraction	----	100	µg/L	<100	<100	0.00	No Limit
		EP071: >C16 - C34 Fraction	----	100	µg/L	<100	<100	0.00	No Limit
		EP071: >C34 - C40 Fraction	----	100	µg/L	<100	<100	0.00	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3485609)									
ES2102429-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES2102770-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
EP080: BTEXN (QC Lot: 3485609)									
ES2102429-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
ES2102770-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
EP132B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3484640)									
ES2102832-001	QC01	EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	0.00	No Limit
		EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Benzo(g.h.i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Dibenz(a.h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	0.00	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP132B: Polynuclear Aromatic Hydrocarbons (QC Lot: 3484640) - continued									
ES2102832-001	QC01	EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	0.00	No Limit
		EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3488781)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	88.7	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	89.1	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	89.1	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	87.6	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	88.8	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	83.2	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	82.4	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 3488778)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	93.7	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3484643)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	79.8	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	92.2	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	83.0	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3485609)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	89.0	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3484643)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	81.6	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	92.7	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	89.7	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3485609)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	89.8	75.0	127
EP080: BTEXN (QCLot: 3485609)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	92.2	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	95.2	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	86.4	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	84.9	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	87.0	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	95.0	70.0	120
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3484640)								
EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	2 µg/L	109	60.0	120
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	2 µg/L	67.9	59.0	123
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	2 µg/L	104	36.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3484640) - continued								
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	2 µg/L	73.6	64.0	122
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	2 µg/L	81.3	64.0	126
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	2 µg/L	85.2	65.0	127
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	2 µg/L	89.4	64.0	130
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	95.1	64.0	126
EP132: Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L	<0.1	2 µg/L	89.5	62.0	126
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	2 µg/L	84.6	62.0	126
EP132: Benzo(g.h.i)perylene	191-24-2	0.1	µg/L	<0.1	2 µg/L	89.2	56.0	126
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	2 µg/L	92.2	68.0	130
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	2 µg/L	90.0	66.0	130
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	2 µg/L	89.7	35.0	133
EP132: Dibenz(a.h)anthracene	53-70-3	0.1	µg/L	<0.1	2 µg/L	95.9	58.0	128
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	2 µg/L	95.7	65.0	127
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	2 µg/L	77.1	64.0	124
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1	2 µg/L	94.5	57.0	127
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	2 µg/L	# 51.7	54.0	128
EP132: Perylene	198-55-0	0.1	µg/L	<0.1	2 µg/L	88.7	66.0	130
EP132: Phenanthrene	85-01-8	0.1	µg/L	<0.1	2 µg/L	82.7	65.0	129
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	2 µg/L	93.3	66.0	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3488781)							
ES2102782-003	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	113	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	120	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	111	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	109	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	101	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	108	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	111	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 3488778)							
ES2102676-003	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	83.5	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3485609)							
ES2102429-001	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	104	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3485609)							
ES2102429-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	104	70.0	130
EP080: BTEXN (QCLot: 3485609)							
ES2102429-001	Anonymous	EP080: Benzene	71-43-2	25 µg/L	97.3	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	102	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	96.4	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	92.1	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	98.3	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	95.1	70.0	130

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2102832**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Telephone	: +61 2 8784 8555
Project	: 2127234	Date Samples Received	: 28-Jan-2021
Site	: 21-27234 Central	Issue Date	: 04-Feb-2021
Sampler	: TERRY NHAM	No. of samples received	: 1
Order number	: 2127234	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Matrix Spike outliers occur.**
- **Laboratory Control outliers exist - please see following pages for full details.**
- **Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Laboratory Control Spike (LCS) Recoveries							
EP132B: Polynuclear Aromatic Hydrocarbons	QC-3484640-002	----	**Naphthalene**	91-20-3	51.7 %	54.0-128%	**Recovery less than lower control limit**

Regular Sample Surrogates

Sub-Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP132T: Base/Neutral Extractable Surrogates	ES2102832-001	QC01	**2-Fluorobiphenyl**	321-60-8	40.2 %	43.0-135 %	**Recovery less than lower data quality objective**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Matrix Spikes (MS)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / *Container / Client Sample ID(s)*	*Sample Date*	*Extraction / Preparation*			*Analysis*		
		Date extracted	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
QC01	**27-Jan-2021**	**----**	----	----	**02-Feb-2021**	26-Jul-2021	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
QC01	**27-Jan-2021**	**----**	----	----	**03-Feb-2021**	24-Feb-2021	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
QC01	**27-Jan-2021**	**01-Feb-2021**	03-Feb-2021	✓	**01-Feb-2021**	13-Mar-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC01	**27-Jan-2021**	**01-Feb-2021**	10-Feb-2021	✓	**01-Feb-2021**	10-Feb-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
QC01	**27-Jan-2021**	**01-Feb-2021**	03-Feb-2021	✓	**01-Feb-2021**	13-Mar-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC01	**27-Jan-2021**	**01-Feb-2021**	10-Feb-2021	✓	**01-Feb-2021**	10-Feb-2021	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
QC01	**27-Jan-2021**	**01-Feb-2021**	10-Feb-2021	✓	**01-Feb-2021**	10-Feb-2021	✓
EP132B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP132)							
QC01	**27-Jan-2021**	**01-Feb-2021**	03-Feb-2021	✓	**01-Feb-2021**	13-Mar-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	10	**20.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	1	**100.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	10	**10.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	WATER	In house: Referenced to USEPA 3640 (GPC Cleanup), 8270 GCMS Capiliary column, SIM mode. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Sep. Funnel Extraction /Acetylation of Phenolic Compounds	ORG14-AC	WATER	In house: Referenced to USEPA 3510 (Extraction) / In-house (Acetylation): A 1L sample is extracted into dichloromethane and concentrated to 1 mL with echange into cyclohexane. Phenolic compounds are reacted with acetic anhydride to yield phenyl acetates suitable for ultra-trace analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com
☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5 Rose Gum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 024423 2063 E: nowra@alsglobal.com
☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townsville.environmental@alsglobal.com
☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: GHD Pty Ltd	**TURNAROUND REQUIREMENT:** ☑ Standard TAT (List due date):	**FOR LABORATORY USE ONLY (Circle)**
OFFICE: Sydney	(Standard TAT may be longer for some tests e.g.. Ultra Trace Organics) ☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT: 21-27234 Central	**ALS QUOTE NO.:** EN/005/19	Free Ice / frozen ice bricks present upon receipt? Yes No N/A
ORDER NUMBER: 2127234	**COC SEQUENCE NUMBER (Circle)** COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: 4-4 °C
PROJECT MANAGER: Henry Luo CONTACT PH: 02 9239 7044 / 0414 090 002	OF: 1 2 3 4 5 6 7	Other comment:
SAMPLER: Terry Nham SAMPLER MOBILE: 0403 251 883	**RELINQUISHED BY:**	**RECEIVED BY:**
COC emailed to ALS? (YES / NO) EDD FORMAT (or default): ESDAT	Terry Nham (GHD)	Sep M.
Email Reports to: henry.luo@ghd.com terry.nham@ghd.com jake.vickers@ghd.com	DATE/TIME: 28/1/2021	DATE/TIME: 28/01/21 1415
Email Invoice to (will default to PM if no other addresses are listed):	**RELINQUISHED BY:**	**RECEIVED BY:** James D.
	DATE/TIME:	DATE/TIME: 28/1/21 1930

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).																					
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	TRH / BTEXN / 8 Metals (W-5)	PAH - Ultra Trace (EP132B)																		
1	QC02	27/1/21	Water		5	X	X																		
	QC01																								
				TOTAL																					

Environmental Division Sydney
Work Order Reference
ES2102832

Telephone + 61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2105795**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 21-27234	Date Samples Received	: 18-Feb-2021 13:05
Order number	: 21-27234	Date Analysis Commenced	: 19-Feb-2021
C-O-C number	: ----	Issue Date	: 25-Feb-2021 16:39
Sampler	: TERRY NHAM		
Site	:		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP132: Where reported, Total PAH reported as the sum of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC02	----	----	----	----
				Sampling date / time	17-Feb-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2105795-001	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		**0.004**	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		**0.002**	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		<0.005	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ **Total Xylenes**	----	2	µg/L		<2	----	----	----	----
^ **Sum of BTEX**	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC02	----	----	----	----
				Sampling date / time	17-Feb-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2105795-001	--------	--------	--------	--------
					Result	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	----	----	----	----
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	----	----	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	----	----	----	----
Acenaphthene	83-32-9	0.1	µg/L		<0.1	----	----	----	----
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	----	----	----	----
Anthracene	120-12-7	0.1	µg/L		<0.1	----	----	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	----	----	----	----
Chrysene	218-01-9	0.1	µg/L		<0.1	----	----	----	----
Coronene	191-07-1	0.1	µg/L		<0.1	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	----	----	----	----
Fluoranthene	206-44-0	0.1	µg/L		<0.1	----	----	----	----
Fluorene	86-73-7	0.1	µg/L		<0.1	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	----	----	----	----
Naphthalene	91-20-3	0.1	µg/L		<0.1	----	----	----	----
Perylene	198-55-0	0.1	µg/L		<0.1	----	----	----	----
Phenanthrene	85-01-8	0.1	µg/L		<0.1	----	----	----	----
Pyrene	129-00-0	0.1	µg/L		<0.1	----	----	----	----
^ Sum of PAHs	----	0.05	µg/L		<0.05	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.05	µg/L		<0.05	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**89.9**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**103**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**97.2**	----	----	----	----
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**67.4**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%		**69.8**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**83.5**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128
EP132T: Base/Neutral Extractable Surrogates			
2-Fluorobiphenyl	321-60-8	43	135
Anthracene-d10	1719-06-8	48	138
4-Terphenyl-d14	1718-51-0	48	144

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2105795**	Page	: 1 of 6
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 21-27234	Date Samples Received	: 18-Feb-2021
Order number	: 21-27234	Date Analysis Commenced	: 19-Feb-2021
C-O-C number	: ----	Issue Date	: 25-Feb-2021
Sampler	: TERRY NHAM		
Site	:		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3526736)									
ES2105804-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.004	0.004	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
ES2105778-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.00	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 3526738)									
ES2105680-007	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES2105987-004	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3524019)									
ES2105119-006	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES2105784-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	150	110	29.2	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3524019)									
ES2105119-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES2105784-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	170	130	27.2	No Limit
EP080: BTEXN (QC Lot: 3524019)									

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP080: BTEXN (QC Lot: 3524019) - continued									
ES2105119-006	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit
ES2105784-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	3	2	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	4	4	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	20	16	23.4	0% - 50%
		EP080: ortho-Xylene	95-47-6	2	µg/L	13	10	25.8	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Spike (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3526736)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	103	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	103	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	102	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	101	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	103	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	101	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	103	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 3526738)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	97.2	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3520148)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	76.8	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	86.2	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	75.1	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3524019)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	91.0	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3520148)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	89.9	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	76.6	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	75.4	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3524019)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	94.0	75.0	127
EP080: BTEXN (QCLot: 3524019)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	99.0	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	103	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	101	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	103	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	100	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	101	70.0	120
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3520146)								
EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	2 µg/L	104	60.0	120
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	2 µg/L	68.1	59.0	123
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	2 µg/L	98.2	36.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3520146) - continued								
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	2 µg/L	75.6	64.0	122
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	2 µg/L	74.7	64.0	126
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	2 µg/L	85.7	65.0	127
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	2 µg/L	99.3	64.0	130
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	100	64.0	126
EP132: Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L	<0.1	2 µg/L	103	62.0	126
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	2 µg/L	101	62.0	126
EP132: Benzo(g.h.i)perylene	191-24-2	0.1	µg/L	<0.1	2 µg/L	96.1	56.0	126
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	2 µg/L	97.0	68.0	130
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	2 µg/L	97.4	66.0	130
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	2 µg/L	83.6	35.0	133
EP132: Dibenz(a.h)anthracene	53-70-3	0.1	µg/L	<0.1	2 µg/L	95.6	58.0	128
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	2 µg/L	96.3	65.0	127
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	2 µg/L	81.1	64.0	124
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1	2 µg/L	97.9	57.0	127
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	2 µg/L	67.6	54.0	128
EP132: Perylene	198-55-0	0.1	µg/L	<0.1	2 µg/L	99.7	66.0	130
EP132: Phenanthrene	85-01-8	0.1	µg/L	<0.1	2 µg/L	85.8	65.0	129
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	2 µg/L	95.0	66.0	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Recovery Limits (%): Low	Recovery Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3526736)							
ES2105743-001	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	95.4	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	99.2	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	98.9	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	96.0	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	96.4	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	96.1	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	96.7	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 3526738)							
ES2105680-006	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	97.1	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Recovery Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3524019)							
ES2105119-006	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	95.5	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3524019)							
ES2105119-006	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	92.1	70.0	130
EP080: BTEXN (QCLot: 3524019)							
ES2105119-006	Anonymous	EP080: Benzene	71-43-2	25 µg/L	89.2	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	90.8	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	89.5	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	88.8	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	90.0	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	80.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2105795**	Page	: 1 of 4
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Telephone	: +61 2 8784 8555
Project	: 21-27234	Date Samples Received	: 18-Feb-2021
Site	:	Issue Date	: 25-Feb-2021
Sampler	: TERRY NHAM	No. of samples received	: 1
Order number	: 21-27234	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type / Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Quality Control Specification
Laboratory Duplicates (DUP)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	13	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	13	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Extraction / Preparation: Due for extraction	Extraction / Preparation: Evaluation	Analysis: Date analysed	Analysis: Due for analysis	Analysis: Evaluation
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
QC02	**17-Feb-2021**	**----**	----	----	**23-Feb-2021**	16-Aug-2021	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
QC02	**17-Feb-2021**	**----**	----	----	**24-Feb-2021**	17-Mar-2021	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**17-Feb-2021**	**19-Feb-2021**	24-Feb-2021	✓	**24-Feb-2021**	31-Mar-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**17-Feb-2021**	**23-Feb-2021**	03-Mar-2021	✓	**23-Feb-2021**	03-Mar-2021	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**17-Feb-2021**	**19-Feb-2021**	24-Feb-2021	✓	**24-Feb-2021**	31-Mar-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**17-Feb-2021**	**23-Feb-2021**	03-Mar-2021	✓	**23-Feb-2021**	03-Mar-2021	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**17-Feb-2021**	**23-Feb-2021**	03-Mar-2021	✓	**23-Feb-2021**	03-Mar-2021	✓
EP132B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP132)							
QC02	**17-Feb-2021**	**22-Feb-2021**	24-Feb-2021	✓	**23-Feb-2021**	03-Apr-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	15	**13.33**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	12	**16.67**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	13	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	12	**8.33**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	13	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	WATER	In house: Referenced to USEPA 3640 (GPC Cleanup), 8270 GCMS Capiliary column, SIM mode. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Sep. Funnel Extraction /Acetylation of Phenolic Compounds	ORG14-AC	WATER	In house: Referenced to USEPA 3510 (Extraction) / In-house (Acetylation): A 1L sample is extracted into dichloromethane and concentrated to 1 mL with echange into cyclohexane. Phenolic compounds are reacted with acetic anhydride to yield phenyl acetates suitable for ultra-trace analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com

BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com

GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com

MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com

MELBOURNE 24 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com

MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

NEWCASTLE 5 Rose Gum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsglobal.com

NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com

SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com

TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townsville.environmental@alsglobal.com

WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: GHD Pty Ltd	**TURNAROUND REQUIREMENT** ☐ Standard TAT **(List due date):** STANDARD TAT		**FOR LABORATORY USE ONLY (Circle)**
OFFICE: Sydney	(Standard TAT may be longer for some tests e.g. Ultra Trace Organics) ☐ Non Standard or urgent TAT **(List due date):**		Custody Seal Intact? Yes / No / N/A
PROJECT: 21-27234 Central	**ALS QUOTE NO.:** EN/005/19	**COC SEQUENCE NUMBER (Circle)**	Cooler Ice/Gel Present upon receipt? Yes / No / N/A
ORDER NUMBER: 2127234		COC: 1 2 3 4 5 6 7	Random Sample Temperature on Receipt: °C
PROJECT MANAGER: Henry Luo	**CONTACT PH:** 02 9239 7044 / 0414 090 002	OF: 1 2 3 4 5 6 7	Other comments:

SAMPLER: Terry Nham	**SAMPLER MOBILE:** 0403 251 883	**RELINQUISHED BY:**	**RECEIVED BY:** FAD i	**RELINQUISHED BY:**	**RECEIVED BY:**
COC emailed to ALS? (YES / NO)	**EDD FORMAT (or default):** ESDAT	Terry Nham (GHD)			
Email Reports to: henry.luo@ghd.com terry.nham@ghd.com jake.vickers@ghd.com		DATE/TIME:	DATE/TIME: 18/2/21 2:45	DATE/TIME:	DATE/TIME: 22/2/21 15:00
Email Invoice to (will default to PM if no other addresses are listed):		18/02/2021			

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).									
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL CONTAINERS	TRH / BTEXN / 8 Metals (W-5)	PAH - Ultra Trace (EP132B)								
1	QC02	17/02/2021	Water		5	X	X								
				TOTAL											

Environmental Division Sydney
Work Order Reference
ES2105795

Telephone : + 61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

Fadi Soro

From: Sepan Mahamad
Sent: Thursday, 18 February 2021 2:47 PM
To: Jessie Blake; Kim Phan; Andrew Makar; Wanida Roberts; Vishal Patel; Soy Stepho; James Deng; Sarin Vartabedian; Helen Simpson; Phoung Tran; Wael Saleh
Cc: Samples Sydney; Fadi Soro; Christopher Redford
Subject: RE: Eskies from Crows Nest
Attachments: ALS_COC_Central_Feb2021.xls

Hi All,

Please see attached updated CoC for ES2105795.

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad

Client Services Officer, Environmental
Sydney

T +61 2 9437 9978
M +61 438 511 003
sepan.mahamad@alsglobal.com
Shop 2, 36 Hume St
Crows Nest NSW 2065 AUSTRALIA

From: Sepan Mahamad
Sent: Thursday, 18 February 2021 2:24 PM
To: Jessie Blake <jessie.blake@ALSGlobal.com>; Kim Phan <Kim.Phan@alsglobal.com>; Andrew Makar <andrew.makar@ALSGlobal.com>; Wanida Roberts <wanida.roberts@alsglobal.com>; Vishal Patel <vishal.patel@ALSGlobal.com>; Soy Stepho <Soy.Stepho@alsglobal.com>; James Deng <james.deng@ALSGlobal.com>; Sarin Vartabedian <sarin.vartabedian@alsglobal.com>; Helen Simpson <helen.simpson@alsglobal.com>; Phoung Tran <phoung.tran@alsglobal.com>; Wael Saleh <Wael.Saleh@alsglobal.com>
Cc: Samples Sydney <Samples.Sydney@alsglobal.com>; Fadi Soro <fadi.soro@alsglobal.com>; Christopher Redford <christopher.redford@ALSGlobal.com>
Subject: Eskies from Crows Nest

Hi All,

Please see attached paperwork for 4 eskies (1 med, 2 small, 1 foam) arriving in Smithfield with Alan by ~ 3pm.

Fast TAT

- *None*

Notes

- *None*

Thank you.

Please note that my office hours are 11am - 5.30pm Monday to Friday. For assistance outside of this time please contact **ALSEnviro.Sydney@alsglobal.com**.
Kind Regards,

Sepan Mahamad

Client Services Officer, Environmental
Sydney

T +61 2 9437 9978
M +61 438 511 003
sepan.mahamad@alsglobal.com
Shop 2, 36 Hume St
Crows Nest NSW 2065 AUSTRALIA

EnviroMail™ 00 - All EnviroMails™ in one convenient library.
Recent releases (click to access directly):
EnviroMail™ 127 – Bacterial Diversity Profiling in NGS
EnviroMail™ 128 – Revised PFAS Bottle Requirements

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com

☐BRISBANE 2 Byth Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com

☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com

☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com

☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com

☐MUDGEE 1/29 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com

☐NEWCASTLE 5/585 Maitland Road Mayfield West NSW 2304 Ph: 02 4014 2500 E: samples.newcastle@alsglobal.com

☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 02 4423 2063 E: nowra@alsglobal.com

☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com

☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com

☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townsville.environmental@alsglobal.com

☐WOLLONGONG 1/19-21 Ralph Black Dr. North Wollongong NSW 2500 Ph: 02 4225 3125 E: wollongong@alsglobal.com

CLIENT: GHD	**TURNAROUND REQUIREMENTS :** (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☐ Standard TAT (List due date):	**FOR LABORATORY USE ONLY (Circle)**
OFFICE:		☐ Non Standard or urgent TAT (List due date):	Custody Seal Intact? Yes No N/A
PROJECT:			Free ice / frozen ice bricks present upon receipt? Yes No N/A
SITE:	**ALS QUOTE NO.:**	**COC SEQUENCE NUMBER (Circle)**	Random Sample Temperature on Receipt: °C
PURCHASE ORDER:	**COUNTRY OF ORIGIN:**	COC: 1 2 3 4 5 6 7	Other comment:
PROJECT MANAGER:	**CONTACT PH:**	OF: 1 2 3 4 5 6 7	
SAMPLER: Terry Nham	**SAMPLER MOBILE:** 0403251883	**RELINQUISHED BY:**	**RECEIVED BY:** Sep M.
COC Emailed to ALS? (YES / NO)	**EDD FORMAT (or default):**	DATE/TIME:	DATE/TIME: 18/02/21 1305
Email Reports to (will default to PM if no other addresses are listed):		**RELINQUISHED BY:**	**RECEIVED BY:** Sep M. / ALS
Email Invoice to (will default to PM if no other addresses are listed):		DATE/TIME:	DATE/TIME: 18/2/21 1550

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE ONLY	SAMPLE DETAILS MATRIX: Solid(S) Water(W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).								Additional Information
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE *(refer to codes below)*	TOTAL BOTTLES									Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
						Updated CoC to be emailed.								
														18/02
				TOTAL										

WO# Assigned at ALS Crows Nest

Please log as:

ES2105795

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag; LI = Lugols Iodine Preserved Bottles; STT = Sterile Sodium Thiosulfate Preserved Bottles.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2109792**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 21-27234	Date Samples Received	: 18-Mar-2021 15:40
Order number	: 2127234	Date Analysis Commenced	: 20-Mar-2021
C-O-C number	: ----	Issue Date	: 25-Mar-2021 17:38
Sampler	: Terry Nham		
Site	:		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP132: Where reported, Total PAH reported as the sum of Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benz(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene and Benzo(g,h,i)perylene.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC02	----	----	----	----
				Sampling date / time	17-Mar-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2109792-001	--------	--------	--------	--------
					Result	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		**0.023**	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		**0.023**	----	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	20	µg/L		<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L		<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L		<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L		<50	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	µg/L		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	20	µg/L		<20	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	20	µg/L		<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L		<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L		<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	100	µg/L		<100	----	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	100	µg/L		<100	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	1	µg/L		<1	----	----	----	----
Toluene	108-88-3	2	µg/L		<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L		<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L		<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L		<2	----	----	----	----
^ **Total Xylenes**	----	2	µg/L		<2	----	----	----	----
^ **Sum of BTEX**	----	1	µg/L		<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L		<5	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC02	----	----	----	----
				Sampling date / time	17-Mar-2021 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2109792-001	--------	--------	--------	--------
					Result	----	----	----	----
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	----	----	----	----
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	----	----	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	----	----	----	----
Acenaphthene	83-32-9	0.1	µg/L		<0.1	----	----	----	----
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	----	----	----	----
Anthracene	120-12-7	0.1	µg/L		<0.1	----	----	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L		<0.1	----	----	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	----	----	----	----
Chrysene	218-01-9	0.1	µg/L		<0.1	----	----	----	----
Coronene	191-07-1	0.1	µg/L		<0.1	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	----	----	----	----
Fluoranthene	206-44-0	0.1	µg/L		<0.1	----	----	----	----
Fluorene	86-73-7	0.1	µg/L		<0.1	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	----	----	----	----
Naphthalene	91-20-3	0.1	µg/L		<0.1	----	----	----	----
Perylene	198-55-0	0.1	µg/L		<0.1	----	----	----	----
Phenanthrene	85-01-8	0.1	µg/L		<0.1	----	----	----	----
Pyrene	129-00-0	0.1	µg/L		<0.1	----	----	----	----
^ Sum of PAHs	----	0.05	µg/L		<0.05	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.05	µg/L		<0.05	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	2	%		**107**	----	----	----	----
Toluene-D8	2037-26-5	2	%		**110**	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		**111**	----	----	----	----
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**78.0**	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%		**78.1**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**83.8**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	71	137
Toluene-D8	2037-26-5	79	131
4-Bromofluorobenzene	460-00-4	70	128
EP132T: Base/Neutral Extractable Surrogates			
2-Fluorobiphenyl	321-60-8	43	135
Anthracene-d10	1719-06-8	48	138
4-Terphenyl-d14	1718-51-0	48	144

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2109792**	Page	: 1 of 6
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Contact	: Angus Harding
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8555
Project	: 21-27234	Date Samples Received	: 18-Mar-2021
Order number	: 2127234	Date Analysis Commenced	: 20-Mar-2021
C-O-C number	: ----	Issue Date	: 25-Mar-2021
Sampler	: Terry Nham		
Site	:		
Quote number	: EN/005		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EG020F: Dissolved Metals by ICP-MS (QC Lot: 3581976)									
ES2109994-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.002	0.002	0.00	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.00	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.005	0.005	0.00	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.109	0.109	0.00	0% - 20%
EG035F: Dissolved Mercury by FIMS (QC Lot: 3581977)									
ES2110438-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
ES2109994-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.00	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 3578823)									
ES2109846-003	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.00	No Limit
ES2109846-010	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	210	200	5.90	0% - 50%
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 3578823)									
ES2109846-003	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.00	No Limit
ES2109846-010	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	210	200	6.00	0% - 50%
EP080: BTEXN (QC Lot: 3578823)									
ES2109846-003	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.00	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP080: BTEXN (QC Lot: 3578823) - continued									
ES2109846-010	Anonymous	EP080: Benzene	71-43-2	1	µg/L	184	171	7.12	0% - 20%
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.00	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.00	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.00	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.00	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3581976)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	89.0	85.0	114
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	87.3	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	90.6	85.0	111
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	86.2	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	89.2	83.0	111
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	88.6	82.0	112
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	87.7	81.0	117
EG035F: Dissolved Mercury by FIMS (QCLot: 3581977)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	93.8	83.0	105
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3575107)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	84.9	55.8	112
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	84.9	71.6	113
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	86.4	56.0	121
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3578823)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	105	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3575107)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	74.6	57.9	119
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	70.8	62.5	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	98.9	61.5	121
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3578823)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	109	75.0	127
EP080: BTEXN (QCLot: 3578823)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	104	70.0	122
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	104	69.0	123
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	107	70.0	120
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	110	69.0	121
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	112	72.0	122
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	107	70.0	120
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3575095)								
EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	2 µg/L	89.7	60.0	120
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	2 µg/L	66.7	59.0	123
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	2 µg/L	85.3	36.0	144

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report: Result	Laboratory Control Spike (LCS) Report: Spike Concentration	Spike Recovery (%): LCS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 3575095) - continued								
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	2 µg/L	70.8	64.0	122
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	2 µg/L	73.7	64.0	126
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	2 µg/L	74.7	65.0	127
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	2 µg/L	82.1	64.0	130
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	84.8	64.0	126
EP132: Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.1	µg/L	<0.1	2 µg/L	83.5	62.0	126
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	2 µg/L	82.0	62.0	126
EP132: Benzo(g.h.i)perylene	191-24-2	0.1	µg/L	<0.1	2 µg/L	83.6	56.0	126
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	2 µg/L	82.2	68.0	130
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	2 µg/L	78.1	66.0	130
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	2 µg/L	82.2	35.0	133
EP132: Dibenz(a.h)anthracene	53-70-3	0.1	µg/L	<0.1	2 µg/L	84.0	58.0	128
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	2 µg/L	79.4	65.0	127
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	2 µg/L	71.4	64.0	124
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1	2 µg/L	85.2	57.0	127
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	2 µg/L	63.6	54.0	128
EP132: Perylene	198-55-0	0.1	µg/L	<0.1	2 µg/L	81.4	66.0	130
EP132: Phenanthrene	85-01-8	0.1	µg/L	<0.1	2 µg/L	73.7	65.0	129
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	2 µg/L	78.3	66.0	128

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%): MS	Acceptable Limits (%): Low	Acceptable Limits (%): High
EG020F: Dissolved Metals by ICP-MS (QCLot: 3581976)							
ES2109915-001	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	111	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	115	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	119	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	114	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	112	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	114	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	114	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 3581977)							
ES2109792-001	QC02	EG035F: Mercury	7439-97-6	0.01 mg/L	98.6	70.0	130

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP080/071: Total Petroleum Hydrocarbons (QCLot: 3578823)							
ES2109846-003	Anonymous	EP080: C6 - C9 Fraction	----	325 µg/L	104	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 3578823)							
ES2109846-003	Anonymous	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	107	70.0	130
EP080: BTEXN (QCLot: 3578823)							
ES2109846-003	Anonymous	EP080: Benzene	71-43-2	25 µg/L	97.7	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	103	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	101	70.0	130
		EP080: meta- & para-Xylene	108-38-3 106-42-3	25 µg/L	101	70.0	130
		EP080: ortho-Xylene	95-47-6	25 µg/L	100	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	86.8	70.0	130

ALS Environmental

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2109792**	Page	: 1 of 5
Client	: **GHD PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: MR HENRY LUO	Telephone	: +61 2 8784 8555
Project	: 21-27234	Date Samples Received	: 18-Mar-2021
Site	:	Issue Date	: 25-Mar-2021
Sampler	: Terry Nham	No. of samples received	: 1
Order number	: 2127234	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **Quality Control Sample Frequency Outliers exist - please see following pages for full details.**

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Dissolved Metals by ICP-MS - Suite A	1	15	6.67	10.00	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	1	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)					
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	0	1	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method	*Sample Date*	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)		*Date extracted*	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG020A-F)							
QC02	**17-Mar-2021**	**----**	----	----	**24-Mar-2021**	13-Sep-2021	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Nitric Acid; Filtered (EG035F)							
QC02	**17-Mar-2021**	**----**	----	----	**25-Mar-2021**	14-Apr-2021	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**17-Mar-2021**	**20-Mar-2021**	24-Mar-2021	✓	**23-Mar-2021**	29-Apr-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**17-Mar-2021**	**23-Mar-2021**	31-Mar-2021	✓	**23-Mar-2021**	31-Mar-2021	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071)							
QC02	**17-Mar-2021**	**20-Mar-2021**	24-Mar-2021	✓	**23-Mar-2021**	29-Apr-2021	✓
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**17-Mar-2021**	**23-Mar-2021**	31-Mar-2021	✓	**23-Mar-2021**	31-Mar-2021	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080)							
QC02	**17-Mar-2021**	**23-Mar-2021**	31-Mar-2021	✓	**23-Mar-2021**	31-Mar-2021	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP132B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP132)							
QC02	**17-Mar-2021**	**20-Mar-2021**	24-Mar-2021	✓	**23-Mar-2021**	29-Apr-2021	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Dissolved Mercury by FIMS	EG035F	2	13	**15.38**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	1	**0.00**	**10.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Dissolved Mercury by FIMS	EG035F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Dissolved Mercury by FIMS	EG035F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	1	**100.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Dissolved Mercury by FIMS	EG035F	1	13	**7.69**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	1	15	**6.67**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	1	**0.00**	**5.00**	×	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to AS 3550, APHA 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Semivolatile Compounds by GCMS(SIM - Ultra-trace)	EP132	WATER	In house: Referenced to USEPA 3640 (GPC Cleanup), 8270 GCMS Capiliary column, SIM mode. This method is compliant with NEPM Schedule B(3)

Preparation Methods	Method	Matrix	Method Descriptions
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Sep. Funnel Extraction /Acetylation of Phenolic Compounds	ORG14-AC	WATER	In house: Referenced to USEPA 3510 (Extraction) / In-house (Acetylation): A 1L sample is extracted into dichloromethane and concentrated to 1 mL with echange into cyclohexane. Phenolic compounds are reacted with acetic anhydride to yield phenyl acetates suitable for ultra-trace analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.

CHAIN OF CUSTODY

ALS Laboratory: please tick →

☐ADELAIDE 21 Burma Road Pooraka SA 5095 Ph: 08 8359 0890 E: adelaide@alsglobal.com
☐BRISBANE 32 Shand Street Stafford QLD 4053 Ph: 07 3243 7222 E: samples.brisbane@alsglobal.com
☐GLADSTONE 46 Callemondah Drive Clinton QLD 4680 Ph: 07 7471 5600 E: gladstone@alsglobal.com
☐MACKAY 78 Harbour Road Mackay QLD 4740 Ph: 07 4944 0177 E: mackay@alsglobal.com
☐MELBOURNE 2-4 Westall Road Springvale VIC 3171 Ph: 03 8549 9600 E: samples.melbourne@alsglobal.com
☐MUDGEE 27 Sydney Road Mudgee NSW 2850 Ph: 02 6372 6735 E: mudgee.mail@alsglobal.com
☐NEWCASTLE 5 Rose Gum Road Warabrook NSW 2304 Ph: 02 4968 9433 E: samples.newcastle@alsglobal.com
☐NOWRA 4/13 Geary Place North Nowra NSW 2541 Ph: 024423 2063 E: nowra@alsglobal.com
☐PERTH 10 Hod Way Malaga WA 6090 Ph: 08 9209 7655 E: samples.perth@alsglobal.com
☐SYDNEY 277-289 Woodpark Road Smithfield NSW 2164 Ph: 02 8784 8555 E: samples.sydney@alsglobal.com
☐TOWNSVILLE 14-15 Desma Court Bohle QLD 4818 Ph: 07 4796 0600 E: townesville.environmental@alsglobal.com
☐WOLLONGONG 99 Kenny Street Wollongong NSW 2500 Ph: 02 4225 3125 E: portkembla@alsglobal.com

CLIENT: GHD Pty Ltd	**TURNAROUND REQUIREMENTS** (Standard TAT may be longer for some tests e.g., Ultra Trace Organics)	☒ Standard TAT **(List due date):** STANDARD TAT ☐ Non Standard or urgent TAT **(List due date):**
OFFICE: Sydney		
PROJECT: 21-27234 Central	**ALS QUOTE NO.:** EN/005/19	**COC SEQUENCE NUMBER (Circle)** COC: 1 2 3 4 5 6 7 OF: 1 2 3 4 5 6 7
ORDER NUMBER: 2127234		**FOR LABORATORY USE ONLY (Circle)** Custody Seal Intact? Yes No N/A
PROJECT MANAGER: Henry Luo	**CONTACT PH:** 02 9239 7044 / 0414 090 002	Free ice / frozen ice packs present upon receipt? Yes No N/A
SAMPLER: Terry Nham	**SAMPLER MOBILE:** 0403 261 883	Random Sample Temperature on Receipt: 6.5 °C
COC emailed to ALS? (YES / NO)	**EDD FORMAT (or default):** ESDAT	Other comment:
Email Reports to: henry.luo@ghd.com terry.nham@ghd.com		
Email Invoice to (will default to PM if no other addresses are listed):		

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Terry Nham (GHD)	Sap M,		JUSTIN
DATE/TIME: 18/3/2021	DATE/TIME: 18/03/21 1540	DATE/TIME:	DATE/TIME: 18/3/21 6.55pm

COMMENTS/SPECIAL HANDLING/STORAGE OR DISPOSAL:

ALS USE	SAMPLE DETAILS MATRIX: SOLID (S) WATER (W)			CONTAINER INFORMATION		ANALYSIS REQUIRED including SUITES (NB. Suite Codes must be listed to attract suite price) Where Metals are required, specify Total (unfiltered bottle required) or Dissolved (field filtered bottle required).																					
LAB ID	SAMPLE ID	DATE / TIME	MATRIX	TYPE & PRESERVATIVE (refer to codes below)	TOTAL CONTAINERS	TRH / BTEXN / 8 Metals (W-5)	PAH - Ultra Trace (EP132B)																				
	QC02	17/3/21	Water		4	X	X																				
				TOTAL																							

Environmental Division
Sydney
Work Order Reference
ES2109792

Telephone : +61-2-8784 8555

Water Container Codes: P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic
V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass;
Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.