



Groundwater Monitoring Event Report

Vopak Site B and B4A Terminals,
20 and 37 Friendship Road, Port
Botany, NSW

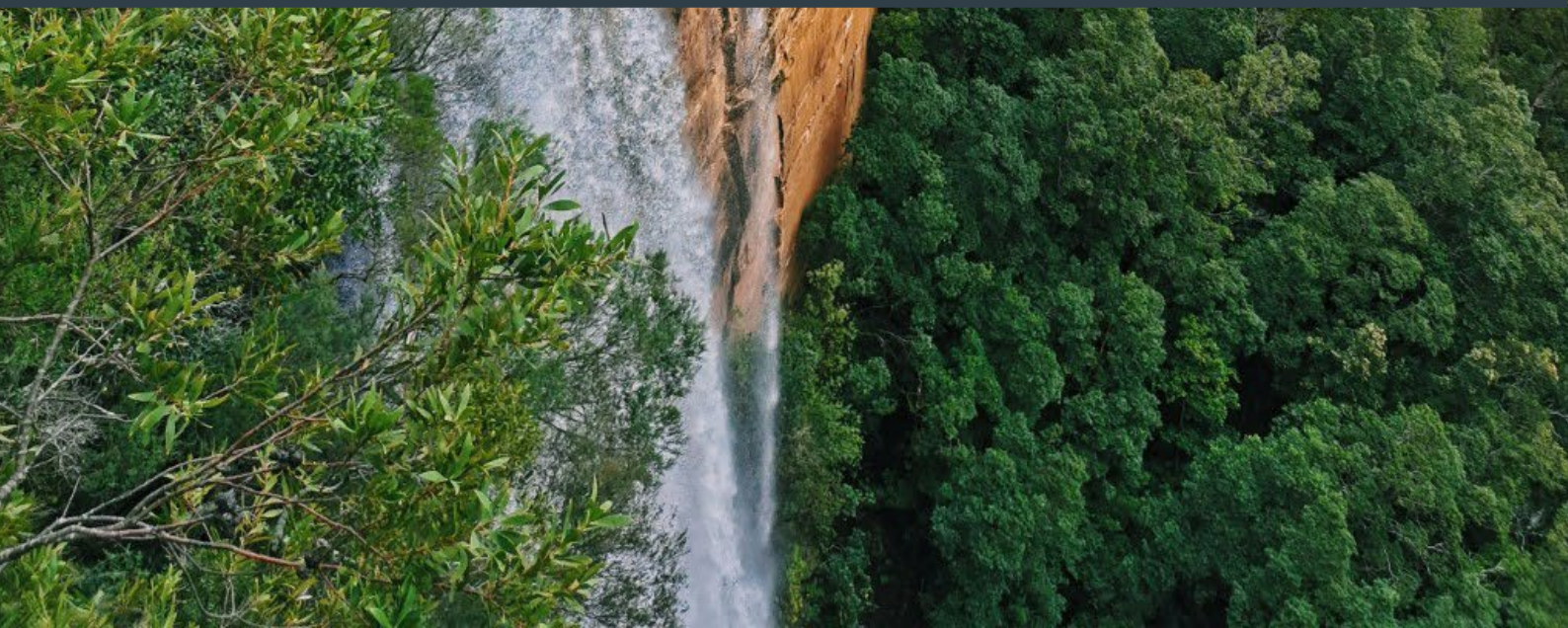
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Geosyntec
consultants



Quality Management

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Executive Summary

Geosyntec Consultants Pty Ltd (Geosyntec) was engaged by Vopak Terminals Sydney Pty Ltd (the Client) to conduct a Groundwater Monitoring Event (GME) at Vopak Site B and B4A Terminals, 20 and 37 Friendship Road, Port Botany (the site).

The site is legally identified as Lot 10 in DP1126332, Lot 21 DP1045324 and Lot 20 DP 1272410, occupies an area of approximately 10.8 hectares (ha) and currently operates as a petroleum products storage terminal. The Site location is presented in Figure 1, attached.

The site is used for petroleum products handling and storage since 1996. The Site layout plan is shown in Figure 2, attached. Given the site's history of onsite petroleum products handling and storage and based on the historic groundwater monitoring results, the groundwater beneath the site contains related contaminants, comprising petroleum hydrocarbons.

The site operates under an Environment Protection Licence (EPL) No. 6007 for scheduled activities Chemical Storage, Petroleum Products and Fuel Production, Shipping in Bulk. The EPL includes three premises: 20 (Site B), 37 (Site B4A) and 49 (Vopak Bitumen Terminal located at B33) Friendship Road, Port Botany. Site B and B4A have requirements to monitor concentrations of pollutants in accordance with Sections P1.3 and M2.3 of the EPL. The objective of the GME was to assess the groundwater at the site in accordance with the EPL requirements.

Geosyntec conducted the GME in March 2026, involving gauging and sampling of 12 groundwater monitoring wells in 10 locations. Two of the locations comprised nested wells (two wells screened at different depths). Based on the findings of this assessment, Geosyntec provides the following conclusions:

- Groundwater sampling and analysis were completed in accordance with the sites EPL (No. 6007).
- The groundwater analytical results were generally reported below the laboratory Limit of Reporting (LOR) except for TPH C10-C14 fraction, TPH C10-C36 (sum of total), TPH C10-C40 (sum of total) and TRH F1 and TRH F2 fractions which were reported above the LOR in MW2.

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1. Introduction

1.1 Background

This report, prepared by Geosyntec Consultants Pty Ltd (Geosyntec), documents a Groundwater Monitoring Event (GME) commissioned by Vopak Terminals Sydney Pty Ltd (Vopak) at Vopak Site B and B4A Terminal, 20 and 37 Friendship Road, Port Botany (Site B and B4A) (the site).

The site is legally identified as Lot 10 in DP1126332, Lot 21 DP1045324 and Lot 20 DP 1272410, occupies an area of approximately 10.8 hectares (ha) and currently operates as a petroleum products storage terminal. The Site location is presented in Figure 1, attached.

Based on the desktop review of previous reports, the site is known to have been used for petroleum products handling and storage since 1996. The Site layout plan is shown in Figure 2.

1.2 Objective

The objective of the GME was to complete a groundwater sampling and analysis in accordance with Conditions P1.3 and M2.3 of the sites Environmental Protection License (EPL) (No. 6007).

1.3 Scope of Work

The scope of works completed during this assessment included:

- Review of related documents.
- Preparation of a Job Hazard Assessment (JHA) and Safe Work Method Statement (SWMS) for the field works component of the investigation.
- Collection of groundwater samples from 12 groundwater monitoring wells at ten monitoring locations nominated by the EPL; MW1-5 and MB01-05. MW4 and MW5 are nested wells.
- National Association of Testing Authorities (NATA) accredited laboratory analysis of groundwater samples for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), Total Petroleum Hydrocarbons (TPH), and Polycyclic Aromatic Hydrocarbons (PAHs).
- Preparation of this report, in general accordance with the NSW EPA (2020) Consultants Reporting on Contaminated Land.

2. Site Identification and Setting

2.1 Site Identification

The site location is shown in Figure 1, with the site layout plan and the sampling locations shown in Figure 2, attached.

Table 1: Site Identification

Title	Details
Street Address:	20 and 37 Friendship Road, Port Botany NSW (the site).
Property Description:	Lot 10 in DP1126332, Lot 21 DP1045324 and Lot 20 DP 1272410
Current Site Ownership:	NSW Ports
Geographical Coordinates: (approx. centre)	Lat: -33.978892° Long: 151.21237°
Property Size:	Approximately 10.8 ha
Local Government Area:	Randwick City Council
Zoning – Existing:	SP1 Special Activities (State Environmental Planning Policy (SEPP) (Three Ports) 2013

2.2 Surrounding Land Use

Land uses immediately adjoining the Site are described as follows:

Table 2: Immediate Site Surrounds

Title	Details
North:	Elgas Gas Storage Facility, followed by other port related industrial facilities.
East:	Port warehousing and shipping container storage, Simblist Road, Prince of Wales Drive followed by Botany Bay.
South:	Port warehousing and container storage, followed by Botany Bay.
West:	Botany Bay.

2.3 Site Condition

2.3.1 General Site Conditions

The site condition based on published information, review of related documents and site observations made during the fieldwork is presented in Table 3. At the time of the fieldwork, the site consisted of an active petroleum products terminal, including a front office building, storage tanks, and truck-loading facilities. Ground surfaces consisted of concrete hardstand, asphalt roadways and aggregate within the storage tank bunded areas.

Table 3: General Site Conditions

Title	Details
Topography and Drainage:	The site lies at approximately 2 to 3 meters (m) Australian Height Datum (AHD). The site is relatively flat. Excess surface water runoff is expected to enter the existing onsite sump and drainage system, before eventually being discharged into Botany Bay. As the site is primarily sealed, minimal surface water is expected to infiltrate into the soil beneath the site.
Boundary Condition:	The boundaries of the site (consisting of security fences) are well maintained.
Visible Signs of Contamination	A warning sign for Asbestos Containing Material (ACM) on bund walls were noted. An asbestos fragment was noted on the western site boundary, adjacent to MW4 in aggregate. Staining was noted in the truck refuelling area.

Vegetation:	The entire site was sealed, except for aggregate covering in the tank bunds and immediate surrounds of the tank bunds. There was no vegetation onsite.
Presence of Drums, Wastes and Fill Materials:	Several empty drums were observed in the workshop in the northern portion of Site B. Asbestos Containing Material (ACM) and Per- and Polyfluoroalkyl Substances (PFAS) signs were observed on site. Aggregate material was noted in the bunded storage tanks areas. Aqueous Film Forming Foam (AFFF) C6 Short Chain was stored in bunded intermediate bulk containers in the northern portion of the site. The site likely contains fill material, as much of the area is on reclaimed land.
Odours:	Hydrocarbon odour was noted at various locations across the site, which is expected at an operating hydrocarbon fuel storage facility.
Condition of Buildings & Roads:	Buildings and roads were well maintained.
Quality of Surface Water:	Surface water was observed to be contained within the existing sump and drainage systems. Water was generally observed to be clear, with no noticeable sheen or odour.
Relevant Local Sensitive Environments:	The local sensitive receiving environment is Botany Bay, located immediately to the west and approximately 160m east of the site.

3. Geology, Hydrogeology and Hydrology

The geology, hydrogeology and hydrology of the site is summarised in this section. This information has been sourced from publicly available records and previous reports issued for the site.

Table 4: Subsurface Conditions

Title	Details
Geological Map	The Sydney 1:100,000 scale Geological Series Sheet 9130 indicates that the site is underlain by man-made fill (mf) potentially including dredged estuarine sands and demolition rubble.
Acid Sulfate Soils:	New South Wales Environment and Heritage soil mapping tool eSPADE 2.0 describes the Site as X2 - Disturbed Terrain - ASS material present below urban development. Acid Sulfate Soil (ASS) in such areas may be exposed during works below natural ground surface and works by which the water table is likely to be lowered.
Summary of Monitoring Wells:	According to the Bureau of Meteorology (BOM) Groundwater Explorer online tool, eleven (11) offsite wells are located within a 1kilometre (km) radius of the site, which are used for monitoring purposes.
Depth to Groundwater:	Depth to the groundwater at the site, as informed by related documents and fieldwork, indicated a standing water level (SWL) between 1.33 m – 4.31 m bgl.
Direction and Rate of Groundwater Flow:	The direction of groundwater flow onsite as evidenced by previous studies, indicated a localised flow from east to west, consistent with the local topography and position of Botany Bay to the east and west of the site. Rate of groundwater flow has not been determined.
Use of Water Abstraction:	Eleven (11) offsite wells are located within a 1 km radius of the site to the north, which are used for monitoring purposes. The site falls within a Groundwater Exclusion Zone (Zone 4 – domestic ban) and no water abstraction is evident.
Nearest Water Body:	The closest receiving water body from the site is Botany Bay, located to the immediate west and 160m east of the site.

4. Sampling Methodology

4.1 Groundwater Sampling Procedure

This section provides details of the adopted sampling and analysis plan, outlining methodologies adopted to ensure that the proposed groundwater investigation meets the requirements of guidelines made or approved by the NSW Environment Protection Authority (EPA).

Groundwater sampling was conducted by a trained and experienced Geosyntec Environmental Scientist in accordance with established Geosyntec Standard Operating Procedures as follows:

- Standing water levels and the total well depth were measured using an interface probe (IP).
- Where the water column in a groundwater well was sufficient, individual sampling-suitable hydrasleeves were deployed and allowed to equilibrate for at least 48 hours and then sampled. Where the water column was not sufficient and because of the hazardous working environment, the well (one groundwater well – MW5S) was purged and sampled using a dedicated clear plastic bailer. This methodology was consistent with the previous round of sample collection.
- Water quality parameters were recorded using a YSI Quattro Pro Plus water quality meter that recorded pH, redox potential (Eh), electrical conductivity (EC), dissolved oxygen (DO) and temperature (calibration certificates are presented in Appendix A).
- For the well which was bailed (MW5S), sampling and recording of water quality parameters was carried out after purging was conducted (at least 3 well volumes). Water quality parameters were recorded immediately after collecting water samples from the location.
- Groundwater samples were placed into laboratory supplied suitable containers.
- Containers were labelled with the sample number, project number and date, with samples despatched under a chain of custody (COC).
- Samples were placed in an iced insulated container to cool.
- Samples were transported to the primary laboratory, Eurofins in Sydney, immediately after the completion of the groundwater sampling activities to allow technical holding times for analysis to be achieved.

4.2 Sampling Locations

Specific sampling locations and details are listed below in Table 6, with sampling locations displayed in the attached Figure 3. The sampled wells were part of the existing well network within the site.

Table 5: Details of Sampling Locations

Location ID	Location Within the Site
MW5-D, MW5-S	Groundwater wells located along the north-eastern boundary of Site B. MW5-D / MW5-S consists of nested deep and shallow wells.
MW1, MW2, MW4-D, MW4-S	Groundwater wells located along the western boundary of Site B. MW4-D / MW4-S consists of nested deep and shallow wells.
MW3	Groundwater well located in the northern centre of Site B.
MB01, MB02	Groundwater wells located along the northern boundary of Site B4A.
MB04	Groundwater well located along the western boundary of Site B4A.

MB03, MB05	Groundwater wells located along the southwestern and southeastern boundary of Site B4A.
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4.3 Analytical Schedule

In accordance with the EPL 12 groundwater samples were analysed for TPHs, BTEX and PAHs. PFAS analysis is not required by the sites EPL.

Results summary tables are attached, and laboratory certificates are presented in Appendix B.

4.4 Field Quality Assurance / Quality Control (QA/QC) Sampling

Quality Assurance and Quality Control (QA/QC) procedures in accordance with Geosyntec Standard Operating Procedures and NEPM (2013) were implemented and are detailed in the following sections and Appendix C.

4.4.1 Duplicate and Triplicate Samples

One duplicate and one triplicate sample were analysed as part of this investigation. The samples were collected at one location, by splitting the recovered water sample into three sample container sets.

4.4.2 Trip Blank and Trip Spike

One trip blank and one trip spike sample was collected for field QA/QC purposes.

5. Monitoring Results

This section presents the results of the sampling of EPL Compliance wells at Site B and B4A.

5.1 Field Observations

This section presents an overview of the field observations of the groundwater encountered during the groundwater sampling activities. Calibration certificates are provided in Appendix A. Copies of the groundwater field observation sheets are provided in Appendix D.

- Standing water levels were measured between 3.13 m bgl in MB01 and 4.20 m bgl in MB04.
- No phase separated hydrocarbons (PSH) or sheens were observed during the groundwater sampling.
- Hydrocarbon odours were noted in the groundwater samples from MW3 and MB05.

Table 8 lists the recordings of the physiochemical measurements taken during the groundwater monitoring event, including the relevant observations.

Table 6: Field Physiochemical Parameters of Sampled Groundwater

Well ID	SWL (mTOC)	pH	Temp (°C)	Conductivity (uS/cm at 25 °C)	Dissolved Oxygen (ppm)	Redox / ORP (mV)	Observations
MW1	3.75	6.73	20.1	619.0	3.26	33.3	Clear, no odour, no sheen, no turbidity
MW2	3.66	7.18	23.8	752.0	0.72	-116.7	Clear, no odour, no sheen, low turbidity
MW3	3.69	8.05	24.2	718.0	2.21	-30.9	Pale yellow, minor hydrocarbon odour, no sheen, low turbidity
MW4S	3.92	6.23	19.8	652.0	2.49	40.8	Clear, no odour, no sheen, no turbidity
MW4D	4.03	6.59	17.6	38,167.0	2.40	-91.6	Clear, no odour, no sheen, no turbidity
MW5S	3.60	6.40	24.2	547.0	4.38	50.1	Clear, no odour, no sheen, no turbidity
MW5D	3.64	5.58	21.8	44,500.0	0.98	8.0	Clear, no odour, no sheen, brown sediments at bottom of hydrasleeve, minor algae
MB01	3.13	8.12	21.0	356.4	0.70	-115.5	Clear, no odour, no sheen, no turbidity, minor orange algae
MB02	3.19	8.72	20.7	462.8	1.89	-145.1	Clear, no odour, no sheen, no turbidity
MB03	4.09	8.18	19.3	246.6	0.92	-171.5	Clear, no odour, no sheen, low turbidity
MB04	4.20	8.49	19.8	619.0	1.48	-90.4	Clear, no odour, no sheen, no turbidity, minor orange algae
MB05	3.81	7.29	21.3	1,362.0	1.37	-149.0	Clear, minor hydrocarbon odour, no sheen, no turbidity, minor orange algae

Groundwater conditions across the site were slightly acidic to slightly alkaline (pH 5.58 to 8.72). Reducing conditions were recorded in Site B4A, where reducing and oxidising conditions were recorded in Site B. Groundwater conductivity varied, ranging between 247 uS/cm and 1,362 uS/cm except for two deep wells (MW4D and MW5D), indicating generally fresh groundwater conditions. The measured conductivity of MW4D and MW5D are 38,167 µS/cm and 44,500 µS/cm, respectively, which are similar to the electrical conductivity of seawater. This suggests that seawater intrusion into the deeper aquifer is likely. Conductivity generally increased towards the southwest in Site B4A.

5.2 Analytical Results

A summary table of the analytical results is attached with the copies of the laboratory certificates included in Appendix B.

Concentrations were not reported above the laboratory Limit of Reporting (LOR) except for lighter to medium TPH/TRH fractions in MW2:

- C10-C14 Fraction: 410 µg/L
- C10-C36 (Sum of total): 410 µg/L
- C10-C40 (Sum of total): 280 µg/L
- F1: 30 µg/L
- F2: 280 µg/L

While these concentrations were detected, no exceedance of the adopted site assessment criteria were reported.

5.3 Data Quality Assessment

5.3.1 Field QA/QC

Groundwater samples were collected using clean dedicated sampling equipment (hydrasleeves or plastic bailer) at each location and clean disposable nitrile gloves to prevent potential cross contamination. Samples were placed directly into laboratory supplied containers.

A duplicate (DUP1) and a triplicate (TRIP1) sample were analysed from the primary sample of MW2. Relative Percentage Differences (RPDs) were reported above the acceptable limits for TRH C10-14 for DUP1 and TRIP1, and TRH F2 for TRIP1 (refer to Table B, Attached). This is considered attributable to heterogeneity of the samples and differing handling and analytical processes used in the separate laboratories. This is considered not to impact the data useability and the overall outcome of the assessment.

Percentage recoveries in the trip spike (58% to 110%) were not within acceptable ranges (70% to 130%), indicating that some loss of BTEX may have occurred, however BTEX was not encountered in the 12 groundwater samples and the minor low to medium TPH/TRH chain detected in MW2 coincided with the previous 2024 monitoring round and not considered to be due to the trip spike loss during the fieldwork. The BTEX concentrations in the trip blank were below the LOR, indicating an unlikely occurrence of cross-contamination during the fieldwork (refer to Table 3 attached).

Detailed field QA/QC results are presented in Table C in Appendix C.

Based on the information referenced above, it was concluded that the collected data is of an acceptable quality to achieve the objectives of this study.

5.3.2 Laboratory QA/QC

Samples were received and analysed by the primary and secondary laboratories, stored with ice and within the sample holding times.

Laboratory duplicates, matrix spikes, control samples, and method blanks were within the accepted ranges. Detailed QA/QC results are presented on the laboratory testing certificates presented in Appendix B and summarised in Table C in Appendix C.

6. Conclusions

Based on the findings of this assessment, Geosyntec provides the following conclusions:

- Groundwater sampling and analysis were completed in accordance with the sites EPL (No. 6007).
- The groundwater analytical results were generally reported below the LOR except for TPH C10-C14 fraction, TPH C10-C36 (sum of total), TPH C10-C40 (sum of total) and TRH F1 and TRH F2 fractions, which were reported above the LOR in MW2.

7. References

ANZG (2023) Australian and New Zealand Guidelines for Fresh and Marine Water Quality.

HEPA (2025) PFAS National Environmental Management Plan, Version 2.0, January 2020 [NEMP 2.0].

NEPM (2013) National Environment Protection (Assessment of Site Contamination) Measure, Schedule A and Schedules B(1)-B(9). National Environment Protection Council, Adelaide.

NHMRC/NRMMC (2025) Australian Drinking Water Guidelines. National Health and Medical Research Council and National Resource Management Ministerial Council of Australia and New Zealand.

NSW EPA (2015) Contaminated Sites: Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997. NSW DECC, Sydney.

NSW EPA (2017) Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme (3rd edition). NSW EPA, Sydney.

NSW EPA (2020) Consultants Reporting on Contaminated Land - Contaminated Land Guidelines.

8. Limitations

This report has been prepared by Geosyntec Consultants Pty Ltd ("Geosyntec") for use by the Client who commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the Client and other parties. The findings of this report are based on the scope of work outlined in Section 1. The report has been prepared specifically for the Client for the purposes of the commission, and use by any explicitly nominated third party in the agreement between Geosyntec and the Client. No warranties, express or implied, are offered to any third parties and no liability will be accepted for use or interpretation of this report by any third party (other than where specifically nominated in an agreement with the Client).

This report relates to only this project and all results, conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose. This report should not be reproduced without prior approval by the Client, or amended in any way without prior written approval by Geosyntec.

Geosyntec's assessment was limited strictly to identifying environmental conditions associated with the subject property area as identified in the scope of work and does not include evaluation of any other issues.

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

This report does not comment on any regulatory obligations based on the findings. This report relates only to the objectives stated and does not relate to any other work conducted for the Client.

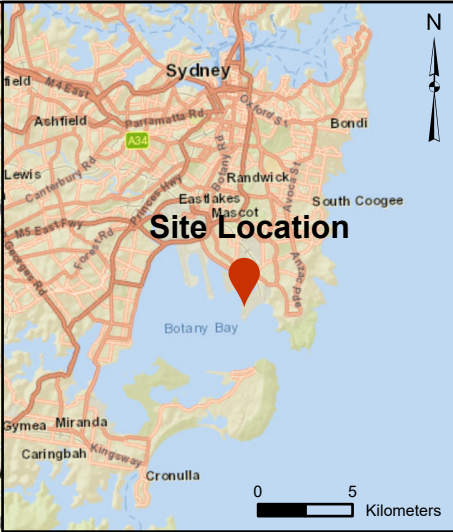
The absence of any identified hazardous or toxic materials on the site should not be interpreted as a guarantee that such materials do not exist on the site.

All conclusions regarding the site are the professional opinions of the Geosyntec personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, Geosyntec has not independently verified and assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of Geosyntec, or developments resulting from situations outside the scope of this project.

Geosyntec is not engaged in environmental assessment and reporting for the purpose of advertising sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes. The Client acknowledges that this report is for its exclusive use.

Figures

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Legend

 Site Boundary



0 1 Kilometers

Site Location Map

20 37 & 49 Friendship Road
Port Botany, NSW

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April 2026

Figure
1



Legend

- ▮ Site Boundary
- ◆ Groundwater Monitoring Well



0 50
Meters

Site B & B4A Layout Plan and Groundwater Monitoring Well Locations

37 Friendship Road
Port Botany, NSW

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Figure

2

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April 2026

Results Tables



Table 1
Groundwater Results - EPL Wells
Site B and B4A , Port Botany, NSW

Field ID Sample Type Date			NHMRC 2018 Recreational Water Quality/Aesthetic	NEPM 2013 Table 1C GILs, Marine Waters	ANZG Marine Toxicant DGVS LOSP 95% (July 2023)	NEPM 2013 Table 1A(4) Comm/Ind HSL D GW for Vapour Intrusion, Sand, >=2m, <4m	MB01 Water 27-Mar-26	MB02 Water 27-Mar-26	MB03 Water 27-Mar-26	MB04 Water 27-Mar-26	MB05 Water 27-Mar-26	MW1 Water 27-Mar-26	MW2 Water 27-Mar-26	MW3 Water 27-Mar-26	MW4D Water 27-Mar-26	MW4S Water 27-Mar-26	MW5D Water 27-Mar-26	MW5S Water 27-Mar-26
QC Sample	Unit	EQL					-	-	-	-	-	-	DUP1 & TRIP1	-	-	-	-	-
BTEX																		
Benzene	µg/L	1	10	500	700	5000	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	µg/L	1	3000		80		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene (VOC)	µg/L	1		50			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Toluene	µg/L	1	8000		180		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (m & p)	µg/L	2			75		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Xylene (o)	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene Total	µg/L	3	6000				<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PHCs																		
C10-C14	µg/L	50					<50	<50	<50	<50	<50	<50	410	<50	<50	<50	<50	<50
C10-C36 (Sum of total)	µg/L	100					<100	<100	<100	<100	<100	<100	410	<100	<100	<100	<100	<100
C10-C40 (Sum of total)	µg/L	100					<100	<100	<100	<100	<100	<100	280	<100	<100	<100	<100	<100
C15-C28		100					<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C29-C36	µg/L	100					<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C34-C40	µg/L	100					<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
C6-C9	µg/L	20					<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
F1	µg/L	20					<20	<20	<20	<20	<20	<20	30	<20	<20	<20	<20	<20
F1 minus BTEX	µg/L	20				6000	<20	<20	<20	<20	<20	<20	30	<20	<20	<20	<20	<20
F2	µg/L	50					<50	<50	<50	<50	<50	<50	280	<50	<50	<50	<50	<50
F2 minus Naphthalene	µg/L	50					<50	<50	<50	<50	<50	<50	280	<50	<50	<50	<50	<50
F3	µg/L	100					<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
PAHs																		
Acenaphthene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acenaphthylene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Anthracene	µg/L	1			0.4		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benz(a)anthracene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a) pyrene	µg/L	1	0.1		0.2		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(b+j)fluoranthene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chrysene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibenz(a,h)anthracene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluoranthene	µg/L	1			1.4		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Fluorene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Naphthalene	µg/L	1			70		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
PAHs (Sum of total)	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Phenanthrene	µg/L	1			2		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Pyrene	µg/L	1					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Notes

EQL: Environmental Quantification Limit

µg/L - micrograms per litre

Primary analyses conducted by Eurofins, laboratory report 1340718

TriPLICATE sample analysed by Envirolab, laboratory report 405571

Detections are shown in bold, exceedances are shaded by corresponding criteria

Environmental Standards

NHMRC (2022), Australian Drinking Water Guidelines

ANZG (July 2023) ANZG Marine Water Toxicant DGVS LOSP

NEPM (2013) Investigation Levels For Soil and Groundwater

HEPA (2025) PFAS National Environmental Management Plan 3.0 (PFAS NEMP)

Table 2
Relative Percent Difference Results - EPL Wells
Port Botany, NSW

Lab Report Number Field ID Sample Type Date			1340718 MW2 Water 27 Mar 2026	1340718 DUP1 Water 27 Mar 2026	RPD	1340718 MW2 Water 27 Mar 2026	405571 TRIP1 Water 27 Mar 2026	RPD
UnitEQL								
BTEX								
Benzene	µg/L	1	<1	<1	0	<1	<1	0
Ethylbenzene	µg/L	1	<1	<1	0	<1	<1	0
Naphthalene (VOC)	mg/L	0.001	<0.01	<0.01	0	<0.01	<0.001	0
Toluene	µg/L	1	<1	<1	0	<1	<1	0
Xylene (m & p)	µg/L	2	<2	<2	0	<2	<2	0
Xylene (o)	µg/L	1	<1	<1	0	<1	<1	0
Xylene Total	µg/L	3	<3	<3	0	<3	-	-
PHCs								
C10-C14	µg/L	50	410	<50	157	410	170	83
C10-C36 (Sum of total)	µg/L	50	410	<100	122	410	170	83
C10-C40 (Sum of total)	µg/L	50	280	<100	95	280	190	38
C15-C28	µg/L	100	<100	<100	0	<100	<100	0
C29-C36	µg/L	100	<100	<100	0	<100	<100	0
C34-C40	µg/L	100	<100	<100	0	<100	<100	0
C6-C9	µg/L	10	<20	30	40	<20	10	0
F1	µg/L	10	30	50	50	30	26	14
F1 minus BTEX	µg/L	10	30	50	50	30	26	14
F2	µg/L	50	280	<50	139	280	190	38
F2 minus Naphthalene	µg/L	50	280	<50	139	280	190	38
F3	µg/L	100	<100	<100	0	<100	<100	0
PAH								
Acenaphthene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Acenaphthylene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Anthracene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Benz(a)anthracene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Benzo(a) pyrene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Benzo(b+j)fluoranthene	µg/L	1	<1	<1	0	<1	-	-
Benzo(b+j+k)fluoranthene	µg/L	0.2	-	-	-	-	<0.2	-
Benzo(g,h,i)perylene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Benzo(k)fluoranthene	µg/L	1	<1	<1	0	<1	-	-
Chrysene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Dibenz(a,h)anthracene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Fluoranthene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Fluorene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Naphthalene	µg/L	0.1	<1	<1	0	<1	<0.1	0
PAHs (Sum of positives)	µg/L	0.1	-	-	-	-	<0.1	-
PAHs (Sum of total)	µg/L	1	<1	<1	0	<1	-	-
Phenanthrene	µg/L	0.1	<1	<1	0	<1	<0.1	0
Pyrene	µg/L	0.1	<1	<1	0	<1	<0.1	0

Notes
*RPDs have only been considered where a concentration is greater than 1 times the EQL.
**Elevated RPDs are highlighted (Acceptable RPDs for each EQL multiplier range are: 81 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis to the primary lab, as methods vary between labs

Table 3
Triplicate Blank and Spike Results - EPL Wells
Port Botany, NSW

Sample Name Matrix Type Date			TB Water 27 Mar 2026	TS Water 27 Mar 2026	
Units (TB)			EQL	Unit (TS)	
BTEX					
Benzene	µg/L	1	<1	%	89
Ethylbenzene	µg/L	1	<1	%	82
Naphthalene (VOC)	mg/L	0.01	<0.01	%	77
Toluene	µg/L	1	<1	%	78
Xylene (m & p)	µg/L	2	<2	%	110
Xylene (o)	µg/L	1	<1	%	88
Xylene Total	µg/L	3	<3	%	93
PHCs					
C6-C9	µg/L	20	<20	%	58
F1	µg/L	20	<20	%	60
F1 minus BTEX	µg/L	20	<20	%	-

EPA Identification Number: 3

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Total Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 4

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	280	280	280
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 5

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 6

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 6

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 7

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 7

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 11

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 12

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 13

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 14

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

EPA Identification Number: 15

Pollutant	Unit of Measure	Number of Samples Required	Number of Samples Collected and Analysed	Lowest Sample Value	Mean of Sample	Highest Sample Value
Benzene	micrograms per litre	1	1	<1	<1	<1
Ethylbenzene	micrograms per litre	1	1	<1	<1	<1
Polycyclic Aromatic Hydrocarbons	micrograms per litre	1	1	<1	<1	<1
Toluene	micrograms per litre	1	1	<1	<1	<1
Total Petroleum Hydrocarbons	micrograms per litre	1	1	<100	<100	<100
Xylene*	micrograms per litre	1	1	<3	<3	<3

*Results for xylene combine the detection limits of both m+p-xylene (<2 ug/L) and o-xylene (<1 µg/L).

Appendix A

Calibration Certificates





Air-Met Scientific Pty Ltd

PO Box 133

Nunawading VIC 3131

Australia

Phone: 1800 000 744

CERTIFICATE OF CALIBRATION

This document certifies that the instrument detailed has been calibrated to the parameters listed below

Certificate Number: 549462-R-16-20260319

Calibration Date: 19/03/2026

Next Calibration Due: 19/06/2026

Customer: Air-Met Scientific (National Rental)

Address: 36 Punch Street , , ARTARMON , 2064

Equipment No: EP022237

Unit Under Test: Solinst 122 Interface Meter 30m

Serial No: 549462

Service Order No: CAL21279

Test Results

Item	Test	Pass	Comments
GAUGE	Inspected	Pass	
FRAME	Inspected	Pass	
CASE	Inspected & Cleaned	Pass	
BATTERY	Capacity checked	Pass	
SEALS	Inspected	Pass	
SOLENOID	Inspected	Pass	
DISPLAY	Display/Backlight checked	Pass	

Reference Equipment:

Equipment ID	Description	Expiry Date	Reference Certificate Number
--------------	-------------	-------------	------------------------------

Results:

Sensor	Units	Applied Value	Results		Pass/ Fail	Comments
			As Found	As Left		

Notes:

Calibrated By: NYLA.SIMONS

Signed: NYLA.SIMONS



Air-Met Scientific Pty Ltd
PO Box 133
Nunawading VIC 3131
Australia
Phone: 1800 000 744

CERTIFICATE OF CALIBRATION

This document certifies that the instrument detailed has been calibrated to the parameters listed below

Certificate Number: 21K101479-R-13-20260319
Calibration Date: 19/03/2026
Next Calibration Due: 19/06/2026

Customer: Air-Met Scientific (National Rental)
Address: 36 Punch Street , , ARTARMON , 2064
Equipment No: EP021311
Unit Under Test: YSI ProDSS Water Quality Meter
Serial No: 21K101479
Service Order No: CAL21305

Test Results						
Item	Test		Pass	Comments		
BATTERY	Capacity checked		Pass			
DISPLAY	Display/Backlight checked		Pass			
PCB	Inspected		Pass			
CASE	Inspected & Cleaned		Pass			
KEYPAD	Function checked		Pass			
SENSOR(S)	Cleaned		Pass			
Reference Equipment:						
Equipment ID	Description		Expiry Date	Reference Certificate Number		
NSW COND	Conductivity (2760mS/cm @ 25deg)		2/02/2028	450785		
NSW DO	DO Powder (Sodium Suplphite Solution)		1/03/2027	445389		
NSW ORP A	Zobell A		1/09/2026	430896		
NSW ORP B	Zobell B		1/06/2027	426087		
NSW PH4	pH 4		15/09/2026	443801		
NSW PH7	PH7 Solution		31/08/2026	448192		
NSW TURB	Turbidity 100 NTU/FNU		2/05/2026	449969		
Results:						
Sensor	Units	Applied Value	Results		Pass/ Fail	Comments
			As Found	As Left		
TEMPERATURE	°C	22.3	22.3	22.3	Pass	
CONDUCTIVITY	µS/cm	2760	2681	2759	Pass	

PH4	pH	4	3.6	4	Pass	
PH7	pH	7	6.75	6.97	Pass	
ORP	mV	231.6	218.5	230	Pass	
DISSOLVED OXYGEN	%	0	4.3	0	Pass	
TURBIDITY	NTU / FNU	100	121.2	101	Pass	

Notes:

Calibrated By: NYLA.SIMONS

Signed: NYLA.SIMONS

Appendix B

Laboratory Certificates



CERTIFICATE OF ANALYSIS 405571

Client Details

Client	Geosyntec
Attention	Priya Dass
Address	Suite 3.04, 1 York Street, Sydney, NSW, 2000

Sample Details

Your Reference	<u>26009811 - Vopak</u>
Number of Samples	1 Water
Date samples received	30/03/2026
Date completed instructions received	30/03/2026

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client unless as indicated below in the method summaries. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	08/04/2026
Date of Issue	08/04/2026

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By

Dragana Tomas, Senior Chemist
 Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water		
Our Reference		405571-1
Your Reference	UNITS	TRIP1
Type of sample		Water
Date extracted	-	02/04/2026
Date analysed	-	07/04/2026
TRH C ₆ - C ₉	µg/L	10
TRH C ₆ - C ₁₀	µg/L	26
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	26
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Naphthalene	µg/L	<1
Surrogate Dibromofluoromethane	%	99
Surrogate Toluene-d8	%	99
Surrogate 4-Bromofluorobenzene	%	99

svTRH (C10-C40) in Water		
Our Reference		405571-1
Your Reference	UNITS	TRIP1
Type of sample		Water
Date extracted	-	31/03/2026
Date analysed	-	01/04/2026
TRH C ₁₀ - C ₁₄	µg/L	170
TRH C ₁₅ - C ₂₈	µg/L	<100
TRH C ₂₉ - C ₃₆	µg/L	<100
Total +ve TRH (C10-C36)	µg/L	170
TRH >C ₁₀ - C ₁₆	µg/L	190
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	µg/L	190
TRH >C ₁₆ - C ₃₄	µg/L	<100
TRH >C ₃₄ - C ₄₀	µg/L	<100
Total +ve TRH (>C10-C40)	µg/L	190
Surrogate o-Terphenyl	%	89

PAHs in Water		
Our Reference		405571-1
Your Reference	UNITS	TRIP1
Type of sample		Water
Date extracted	-	31/03/2026
Date analysed	-	01/04/2026
Naphthalene	µg/L	<0.1
Acenaphthylene	µg/L	<0.1
Acenaphthene	µg/L	<0.1
Fluorene	µg/L	<0.1
Phenanthrene	µg/L	<0.1
Anthracene	µg/L	<0.1
Fluoranthene	µg/L	<0.1
Pyrene	µg/L	<0.1
Benzo(a)anthracene	µg/L	<0.1
Chrysene	µg/L	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2
Benzo(a)pyrene	µg/L	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1
Total +ve PAH's	µg/L	<0.1
Surrogate <i>p</i> -Terphenyl-d14	%	95

Method ID	Methodology Summary
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			02/04/2026	[NT]	[NT]	[NT]	[NT]	02/04/2026	[NT]
Date analysed	-			07/04/2026	[NT]	[NT]	[NT]	[NT]	07/04/2026	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	101	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	102	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	101	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	99	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate Toluene-d8	%		Org-023	98	[NT]	[NT]	[NT]	[NT]	101	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			31/03/2026	[NT]	[NT]	[NT]	[NT]	31/03/2026	[NT]
Date analysed	-			31/03/2026	[NT]	[NT]	[NT]	[NT]	31/03/2026	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	95	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	101	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	77	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			31/03/2026	[NT]	[NT]	[NT]	[NT]	31/03/2026	[NT]
Date analysed	-			01/04/2026	[NT]	[NT]	[NT]	[NT]	01/04/2026	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	97	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	99	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	100	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	87	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	98	[NT]	[NT]	[NT]	[NT]	91	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates can be downloaded from the [Envirolab Resources website](#) or obtained directly by contacting the laboratory.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

VOC vials have headspace

**ENVIROLAB GROUP**

National phone number 1300 424 344

Sydney Lab - Envirolab Services
12 Ashley St, Chatswood, NSW 2067
☎ 02 9910 6200 | ✉ sydney@envirolab.com.au

Perth Lab - MPL Laboratories
16-18 Hayden Crt, Myaree, WA 6154
☎ 08 9317 2505 | ✉ lab@mpl.com.au

Melbourne Lab - Envirolab Services
25 Research Drive, Croydon South, VIC 3136
☎ 03 9763 2500 | ✉ melbourne@envirolab.com.au

Adelaide Office - Envirolab Services
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Brisbane Office - Envirolab Services
20a, 10-20 Depot St, Banyo, QLD 4014
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Darwin Office - Envirolab Services
Unit 20/119 Reichardt Road, Winnellie, NT 0820
☎ 08 8967 1201 | ✉ darwin@envirolab.com.au

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Company: Geosyntec		Client Project Name/Number/Site etc (ie report title): 26009811 -Vopak												
Contact Person: Dylan Barclay		PO No. (if applicable):												
Project Mgr: Priya Dass		Envirolab Quote No.:												
Sampler: Dylan Barclay, Rohan Wang		Date results required:												
Address: Suite 3.04, 1 York Street, Sydney NSW 2000		Or choose: ☒ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day												
Phone: 424837400 Mob: 0420400304		Note: Inform lab in advance if urgent turnaround is required - surcharges apply												
Email Results to: dylan.barclay@geosyntec.com, priya.dass@geosyntec.com		Additional report format: ☒ Esdat ☐ Equis												
Email Invoice to: priya.dass@geosyntec.com admin@geosyntec.com		Lab Comments: Best of samples to be collected on 27/3												
Sample information		Tests Required												
Envirolab Sample ID (Lab use only)	Client Sample ID or Information	Depth	Date Sampled	Type of Sample	Heavy Metals (8)	Total Petroleum Hydrocarbons (TPH)	BTEX	PAHs	pH	Electrical Conductivity	Asbestos (5g)	Foreign Materials (T276)	On Hold	Comments
	MW1			Water	X	X	X							
	MW2			Water	X	X	X							
	MW3			Water	X	X	X							
	MW4S			Water	X	X	X							
	MW4D			Water	X	X	X							
	MW5S			Water	X	X	X							
	MW5D			Water	X	X	X							
	MB01			Water	X	X	X							
	MB02			Water	X	X	X							
	MB03			Water	X	X	X							
	MB04			Water	X	X	X							
	MB05			Water	X	X	X							
	DUP1			Water	X	X	X							
	TRIP1			Water	X	X	X							Send to Envirolab
	TB			Water	X	X								
	TS			water	X	X								
☐ Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis														
Relinquished by (Company): Geosyntec		Received by (Company): <i>ES 571</i>		Lab Use Only										
Print Name: Dylan Barclay		Print Name: <i>Sham Toic</i>		Job number: <i>405571</i>										
Date & Time: <i>25/3</i>		Date & Time: <i>30/3/26 1620</i>		Temperature: <i>10</i>										
				Cooling: Ice / Ice pack / None										
				Security seal: Intact / Broken / None										

1340718

8.34
5:30 pm
27/05/26

DATA QUALITY ASSESSMENT SUMMARY

Report Details	
Envirolab Report Reference	405571
Client ID	Geosyntec
Project Reference	26009811 - Vopak
Date Issued	08/04/2026

QC DATA

All laboratory QC data was within the Envirolab Group's specifications.

HOLDING TIME COMPLIANCE EVALUATION

All preservation / holding times (based on AS/ASPHA/ISO/NEPM/USEPA reference documents and standards) are compliant except:

Holding Time Exceedances					
Analysis	Sample No	Date Sampled	Date Extracted	Date Analysed	Accepted
vTRH(C6-C10)/BTEXN in Water					
	405571-1		02/04/2026	07/04/2026	#
svTRH (C10-C40) in Water					
	405571-1		31/03/2026	01/04/2026	#

Holding Table Comments

No Sample Dates were provided. Holding Times cannot be calculated.

Certain analyses have had their recommended technical holding times elongated by filtering and/or freezing on receipt at the laboratory (e.g. BOD, chlorophyll/Pheophytin, nutrients and acid sulphate soil tests).

COMPLIANCE TO QC FREQUENCY (NEPM)

Internal laboratory QC rate complies with NEPM requirements (LCS/MB/MS 1 in 20, Duplicates 1 in 10 samples). Note, samples are batched together with other sample consignments in order to assign QC sample frequency.

QC Evaluation	
Duplicate(s) was performed as per NEPM frequency	✓
Laboratory Control Sample(s) were analysed with the samples received	✓
A Method Blank was performed with the samples received	✓
Matrix spike(s) was performed as per NEPM frequency (Not Applicable for Air samples)	✓

Refer to Certificate of Analysis for all Quality Control data.

SAMPLE RECEIPT ADVICE

Client Details

Client	Geosyntec
Attention	Priya Dass

Sample Login Details

Your reference	26009811 - Vopak
Envirolab Reference	405571
Date Sample Received	30/03/2026
Date Instructions Received	30/03/2026
Date Results Expected to be Reported	08/04/2026

Sample Condition

Samples received in appropriate condition for analysis	VOC vials have headspace
No. of Samples Provided	1 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	10
Cooling Method	Ice Pack
Sampling Date Provided	Not Provided on the COC

Comments

Please contact the laboratory within 24 hours if you wish to cancel the aforementioned testing. Otherwise testing will proceed as per the COC and hence invoiced accordingly.

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



Sample ID	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water
TRIP1	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

We acknowledge receipt of your samples and Purchase Order (PO) (if provided). If a PO includes your terms & conditions, Envirolab hereby expressly rejects and will not be bound by any external or third-party terms and conditions, including those referenced or attached to a PO.

All services to be performed by Envirolab will be governed exclusively by Envirolab's General Terms and Conditions attached to this acknowledgement ([Envirolab Terms](#)) via hyperlink or found on our websites.

If you do not object in writing within two (2) business days of the date of this acknowledgement, you will be deemed to have accepted the Envirolab Terms. In addition, your provision of further instructions, additional samples, payment of any invoice, or acceptance of services or results from Envirolab will constitute acceptance of the Envirolab Terms. For clarity, Envirolab's commencement or continuation of work following receipt of the PO is performed solely under the Envirolab Terms and does not constitute acceptance of any external terms. All rights are expressly reserved.



Company:	Geosyntec
Contact Person:	Dylan Barclay

Client Project Name/Number/Site etc (ie report title):
26009811 -Vopak

ENVIROLAB GROUP
National phone number 1300 424 344
Sydney Lab - EnviroLab Services
12 Ashley St, Christwood, NSW 2067
☎ 02 9910 6200 | ✉ sydney@envirolab.com.au
Melbourne Lab - Enviro Laboratories
16-18 Hayden Crt, Waverley, WA 6104
☎ 08 9317 2505 | ✉ lab@mp.com.au

Contact Person:	Dylan Barclay
Project Mgr:	Priya Dass
Sampler:	Dylan Barclay

PO No. (if applicable):	
EnviroLab Quote No.:	

25 Research Drive, Croydon South, VIC 3136
 | 03 9763 2500 | melbourne@envirolab.com.au

Address:	
----------	--

Date results required:

Asbestos Office - Envirolab Services

Suite 3.04, 1 York Street, Sydney NSW 2000

Or choose:

7a The Parade, Norwood, SA 5067
+61 08 7067 6800 | adaide@envirolab.com.au

Phone: 424837400 Mob: 0420400304

Note: Inform lab in advance if urgent turnaround is required

20a, 10-20 Depot St, Barryo, QLD 4014

Email Results to: dylan.barclay@geosyntec.com, priva.dass@geosyntec.com

Lab Comments: Def + comm

Unit 20/119 Relchardt Road, Wilmerville, NT 0820

Email Invoice to:
Priva.dass@qeosyntec.com
admin@qeosyntec.com

collected on

[illegible]

5/7/18

Comments: Res + ♂ samples to be collected on 27/3

ENVIROLAB GROUP
 National phone number: 1300 424 344

Sydney Lab - EnviroLab Services
 12 Albany St, Cheshamwood, NSW 2067
 02 9910 6200 | sydney@envirolab.com.au

Perth Lab - MPI Laboratories
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 25 Research Orth, Claydon South, VIC 3136
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Brisbane Office - EnviroLab Services
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 07 3266 8632 | brisbane@envirolab.com.au

Darwin Office - EnviroLab Services
 Unit 20/18 Rockingham Road, Winnellie, NT 0820
 08 9567 1201 | darwin@envirolab.com.au

5:30 PM
27/03/26



RE: Eurofins Sample Receipt Advice - Report 1340718 : Site

From Dylan Barclay <dylan.barclay@geosyntec.com>

Date Mon 3/30/2026 10:24 AM

To SH_AU25_Enviro_Sample_NSW <EnviroSampleNSW@eurofinsanz.com>

Cc Priya Dass <Priya.Dass@geosyntec.com>; Bonnie Pu <Bonnie.Pu@eurofinsanz.com>

Unverified Sender: The sender of this email has not been verified. Review the content of the message carefully and verify the identity of the sender before acting on this email: replying, opening attachments or clicking links.

Good Morning,

The first batch of samples, collected on Thursday by a courier, was sampled on 25/3/26.

The second batch of samples, collected on Friday by a courier, was sampled on 27/3/26.

Please let me know if you have any questions.

Kind regards,

Dylan Barclay
Environmental Scientist

Geosyntec Consultants Pty Ltd

A: Suite 3.04, 1 York Street, Sydney NSW 2000

P: +61 (2) 9251 8070

M: +61 488 421 556

[geosyntec](#) | [SiREM](#) | [savron](#)

From: Fadi Shaana <EET-ELVIS@eurofinsanz.com>

Sent: Friday, 27 March 2026 10:23 PM

To: Dylan Barclay <dylan.barclay@geosyntec.com>

Cc: Priya Dass <priya.dass@geosyntec.com>

Subject: Eurofins Sample Receipt Advice - Report 1340718 : Site

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe. If you have any suspicion, please confirm with the sender verbally that this email is authentic. If you suspect fraud, click "Phish Alert Report."

Dear Valued Client,

PLEASE CONFIRM SAMPLING DATE. SAMPLE SENT TO ENVIROLAB

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 Analytical Services Manager as soon as possible to make certain that they get changed.

Regards

Fadi Shaana

Sample Receipt

Eurofins | Environmental Testing

179 Magowar Road,

GIRRAWEE, NSW 2145

AUSTRALIA

Phone: +61 02 9900 8421

Email: EnviroSampleNSW@eurofins.com

Website: <http://environment.eurofins.com.au>

[View our latest EnviroNotes](#)



Quality Assurance/Quality Control Review

Summary :

Quality Control Frequency - Solid

- 0 Duplicate frequency non-compliant
- 0 Laboratory matrix spike frequency non-compliant
- 0 Method Blank frequency non-compliant
- 0 Laboratory Control Spikes frequency non-compliant

Quality Control Frequency - Water

- 0 Duplicate frequency non-compliant
- 0 Laboratory matrix spike frequency non-compliant
- 0 Method Blank frequency non-compliant
- 0 Laboratory Control Spikes frequency non-compliant

Quality Control Outlier - Solid

- 0 Duplicate outlier
- 0 Laboratory matrix spike outlier
- 0 Method Blank outlier
- 0 Laboratory Control Spikes outlier

Quality Control Outlier - Water

- 0 Duplicate outlier
- 0 Laboratory matrix spike outlier
- 0 Method Blank outlier
- 0 Laboratory Control Spikes outlier

Holding Time Outlier - Solid

- No samples analysed out of holding time.

Holding Time Outlier - Water

- No samples analysed out of holding time.

Quality Control Analyte Summary Compliance

The table below is the actual occurrence of QC performed on the batch of samples within this report and as defined below

Quality Control Parameter Frequency Compliance follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure (NEPM) April 2011, Schedule B3, Guideline on Laboratory Analysis of Potentially Contaminated Soils and US EPA SW-846 Chapter 1: 'Quality Control'. It comprises the following when a laboratory process batch is deemed to consist of up to 20 samples that are similar in terms of matrix and test procedure, and are processed as one unit for QC purposes. If more than 20 samples are being processed, they are considered as more than one batch. Method blank - One method blank per process batch. Laboratory duplicate: There should be at least one duplicate per process batch or two duplicates if the process batch exceeds 10 samples. Laboratory control sample (LCS): There should be at least one LCS per process batch. Matrix spikes - There should be one matrix spike per matrix type per process batch.

For Per- and Polyfluoroalkyl Substances (PFAS) analysis, as outlined in US EPA Quality Systems Manual (QSM 6.0 or later versions) Table B-24. Per- and Polyfluoroalkyl Substances (PFAS) Analysis by Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS), follow strict Data Validation procedures to ensure accuracy, precision, and reliability as per US DoD's Environmental Data Quality Workgroup Data Validation Guidelines Module 6. Acceptance criteria and frequency for Initial Calibration Verification (ICV), Continuing Calibration Verification (CCV), Laboratory Control Sample (LCS), Method Blank (MB), Surrogate Recovery (for Isotopically Labelled Standards for Extracted Internal Standards and Non-extracted Internal Standards (if applicable for Method 1633)) and duplicates follow the NEPM requirements or additional prerequisites listed in PFAS National Environmental Management Plan 3.0, 2025.

Matrix : Water

Analysis	QC Type	Samples Analysed	QC Sample Reported	Frequency Criteria		Within Acceptance Limits
				Expected	Achieved	
Total Recoverable Hydrocarbons	Laboratory Duplicates	13	4	2	✓	✓ ^{Q15}
	Laboratory Matrix Spikes	13	1	1	✓	✓
	Method Blanks	13	3	1	✓	✓
	Laboratory Control Samples	13	3	1	✓	✓
BTEX	Laboratory Duplicates	13	2	2	✓	✓
	Laboratory Matrix Spikes	13	1	1	✓	✓
	Method Blanks	13	1	1	✓	✓
	Laboratory Control Samples	13	1	1	✓	✓
Polycyclic Aromatic Hydrocarbons	Laboratory Duplicates	13	2	2	✓	✓
	Laboratory Matrix Spikes	13	2	1	✓	✓
	Method Blanks	13	1	1	✓	✓
	Laboratory Control Samples	13	1	1	✓	✓

Qualifier Codes/Comments

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.

Analysis Holding Time Compliance

Matrix : Water

	Analysis Holding	Date Sampled	Date Extracted	Date Analysed	Compliant
TRH C6-C9					
26-Ma0088330, 26-Ma0088331, 26-Ma0088332, 26-Ma0088333, 26-Ma0088334, 26-Ma0088335, 26-Ma0088336, 26-Ma0088337, 26-Ma0088338, 26-Ma0088339, 26-Ma0088340, 26-Ma0088341, 26-Ma0088342	14 Days	27/03/2026	30/03/2026	30/03/2026	✓
26-Ma0088344		27/03/2026	31/03/2026	01/04/2026	✓
BTEX					
26-Ma0088330, 26-Ma0088331, 26-Ma0088332, 26-Ma0088333, 26-Ma0088334, 26-Ma0088335, 26-Ma0088336, 26-Ma0088337, 26-Ma0088338, 26-Ma0088339, 26-Ma0088340, 26-Ma0088341, 26-Ma0088342	14 Days	27/03/2026	30/03/2026	30/03/2026	✓
26-Ma0088344		27/03/2026	27/03/2026	02/04/2026	✓
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
26-Ma0088330, 26-Ma0088331, 26-Ma0088332, 26-Ma0088333, 26-Ma0088334, 26-Ma0088335, 26-Ma0088336, 26-Ma0088337, 26-Ma0088338, 26-Ma0088339, 26-Ma0088340, 26-Ma0088341, 26-Ma0088342	7 Days	27/03/2026	28/03/2026	30/03/2026	✓
TRH C6-C10					
26-Ma0088344	14 Days	27/03/2026	31/03/2026	01/04/2026	✓
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					
26-Ma0088330, 26-Ma0088331, 26-Ma0088332, 26-Ma0088333, 26-Ma0088334, 26-Ma0088335, 26-Ma0088336, 26-Ma0088337, 26-Ma0088338, 26-Ma0088340, 26-Ma0088341	7 Days	27/03/2026	28/03/2026	30/03/2026	✓
26-Ma0088339		27/03/2026	28/03/2026	31/03/2026	✓
26-Ma0088342		27/03/2026	28/03/2026	01/04/2026	✓
Polycyclic Aromatic Hydrocarbons					
26-Ma0088330, 26-Ma0088331, 26-Ma0088332, 26-Ma0088333, 26-Ma0088334, 26-Ma0088335, 26-Ma0088336, 26-Ma0088337, 26-Ma0088338, 26-Ma0088340, 26-Ma0088341, 26-Ma0088342	7 Days	27/03/2026	27/03/2026	30/03/2026	✓
26-Ma0088339		27/03/2026	27/03/2026	31/03/2026	✓
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
26-Ma0088330, 26-Ma0088331, 26-Ma0088332, 26-Ma0088333, 26-Ma0088334, 26-Ma0088335, 26-Ma0088336, 26-Ma0088337, 26-Ma0088338, 26-Ma0088340, 26-Ma0088341	7 Days	27/03/2026	30/03/2026	30/03/2026	✓
26-Ma0088339		27/03/2026	30/03/2026	31/03/2026	✓
26-Ma0088342		27/03/2026	30/03/2026	01/04/2026	✓

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Melbourne 6 Monterey Road Dandenong South VIC 3175 +61 3 8564 5000 NATA# 1261 Site# 1254	Geelong 19/8 Lewalan Street Grovedale VIC 3216 +61 3 8564 5000 NATA# 1261 Site# 25403	Sydney 179 Magowar Road Girraween NSW 2145 +61 2 9900 8400 NATA# 1261 Site# 18217	Newcastle 1/2 Frost Drive Mayfield West NSW 2304 +61 2 4968 8448 NATA# 1261 Site# 25079	Canberra Unit 1,2 Dacre Street Mitchell ACT 2911 +61 2 6113 8091 NATA# 1261 Site# 25466	Brisbane 1/21 Smallwood Place Murarrie QLD 4172 +61 7 3902 4600 NATA# 1261 Site# 20794 & 2780	Hobart 282A Argyle Street North Hobart TAS 7000 +61 3 8564 5000 NATA# 1261 Site# 1254	Perth 46-48 Banksia Road Welshpool WA 6106 +61 8 6253 4444 NATA# 2377 Site# 2370 & 2554
---	--	--	--	--	--	--	--

Sample Receipt Advice

Company name:	Geosyntec Consultants Pty Ltd
Contact name:	Dylan Barclay
Project name:	26009811-VOPAK
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Mar 27, 2026 9:56 PM
Eurofins reference	1340718

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ 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

PLEASE CONFIRM SAMPLING DATE. SAMPLE SENT TO ENVIROLAB
Samples received by the laboratory after 5.30pm are deemed to have been received the following working day.

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Bonnie Pu on phone : or by email: Bonnie.Pu@eurofinsanz.com

Results will be delivered electronically via email to Dylan Barclay - dylan.barclay@geosyntec.com.

Note: A copy of these results will also be delivered to the general Geosyntec Consultants Pty Ltd email address.



Eurofins Environment Testing Australia Pty Ltd

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web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 3.04, 1 York Street
Sydney
NSW 2000

Order No.: 26009811-18358
Report #: 1340718
Phone: 02 9251 8070
Fax:

Received: Mar 27, 2026 9:56 PM
Due: Apr 7, 2026
Priority: 5 Day
Contact Name: Dylan Barclay

Project Name: 26009811-VOPAK

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Split - External Lab*	Polycyclic Aromatic Hydrocarbons	BTEX	Total Recoverable Hydrocarbons	Eurofins Suite B4	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
External Laboratory						X						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	MW1	Mar 27, 2026		Water	S26-Ma0088330					X		
2	MW2	Mar 27, 2026		Water	S26-Ma0088331		X	X	X			
3	MW3	Mar 27, 2026		Water	S26-Ma0088332		X	X	X			
4	MW4S	Mar 27, 2026		Water	S26-Ma0088333		X	X	X			
5	MW4D	Mar 27, 2026		Water	S26-Ma0088334		X	X	X			
6	MW5S	Mar 27, 2026		Water	S26-Ma0088335		X	X	X			
7	MW5D	Mar 27, 2026		Water	S26-Ma0088336		X	X	X			
8	MB01	Mar 27, 2026		Water	S26-Ma0088337		X	X	X			
9	MB02	Mar 27, 2026		Water	S26-Ma0088338		X	X	X			
10	MB03	Mar 27, 2026		Water	S26-Ma0088339		X	X	X			
11	MB04	Mar 27, 2026		Water	S26-Ma0088340		X	X	X			
12	MB05	Mar 27, 2026		Water	S26-Ma0088341		X	X	X			
13	DUP1	Mar 27, 2026		Water	S26-Ma0088342		X	X	X			
14	TS	Mar 27, 2026		Trip Spike (liquid)	S26-Ma0088343							X



web: www.eurofins.com.au
email: EnviroSales@eurofinsanz.com

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NATA# 2377
Site# 2370 & 2554

Company Name: Geosyntec Consultants Pty Ltd
Address: Suite 3.04, 1 York Street
Sydney
NSW 2000

Order No.: 26009811-18358
Report #: 1340718
Phone: 02 9251 8070
Fax:

Received: Mar 27, 2026 9:56 PM
Due: Apr 7, 2026
Priority: 5 Day
Contact Name: Dylan Barclay

Project Name: 26009811-VOPAK

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Split - External Lab*	Polycyclic Aromatic Hydrocarbons	BTEX	Total Recoverable Hydrocarbons	Eurofins Suite B4	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
15	TB	Mar 27, 2026		Trip Blank (liquid)	S26-Ma0088344						X	
16	TRIP1	Mar 27, 2026		Soil	S26-Ma0088345	X						
Test Counts						1	12	12	12	1	1	1

Geosyntec Consultants Pty Ltd
Suite 3.04, 1 York 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, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: Dylan Barclay

Report 1340718-W-V2
Project name 26009811-VOPAK
Received Date Mar 27, 2026

Client Sample ID			MW1	MW2	MW3	MW4S
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S26- Ma0088330	S26- Ma0088331	S26- Ma0088332	S26- Ma0088333
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	0.41	< 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	0.41	< 0.1	< 0.1
TRH C6-C10	0.02	mg/L	< 0.02	0.03	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	0.03	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	0.28	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	0.05	mg/L	< 0.05	0.28	< 0.05	< 0.05
Naphthalene ^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
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	0.28	< 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	%	86	79	81	78
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MW1	MW2	MW3	MW4S
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S26-Ma0088330	S26-Ma0088331	S26-Ma0088332	S26-Ma0088333
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	105	102	105	105
p-Terphenyl-d14 (surr.)	1	%	103	107	108	106

Client Sample ID			MW4D	MW5S	MW5D	MB01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S26-Ma0088334	S26-Ma0088335	S26-Ma0088336	S26-Ma0088337
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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
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
Naphthalene ^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
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
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	%	82	83	84	82
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MW4D	MW5S	MW5D	MB01
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S26-Ma0088334	S26-Ma0088335	S26-Ma0088336	S26-Ma0088337
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	104	103	105	INT
p-Terphenyl-d14 (surr.)	1	%	109	107	108	88

Client Sample ID			MB02	MB03	MB04	MB05
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S26-Ma0088338	S26-Ma0088339	S26-Ma0088340	S26-Ma0088341
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
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
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
Naphthalene ^{N02}	0.01	mg/L	< 0.01	< 0.01	< 0.01	< 0.01
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
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	%	83	82	81	80
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			MB02	MB03	MB04	MB05
Sample Matrix			Water	Water	Water	Water
Eurofins Sample No.			S26-Ma0088338	S26-Ma0088339	S26-Ma0088340	S26-Ma0088341
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Naphthalene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	INT	51	INT	INT
p-Terphenyl-d14 (surr.)	1	%	82	79	88	94

Client Sample ID			DUP1	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S26-Ma0088342	S26-Ma0088343	S26-Ma0088344
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	0.02	mg/L	0.03	-	< 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	-	-
TRH C6-C10	0.02	mg/L	0.05	-	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	0.05	-	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	0.05	mg/L	< 0.05	-	-
Naphthalene ^{N02}	0.01	mg/L	< 0.01	-	< 0.01
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	-	-
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	%	84	-	75
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	0.001	mg/L	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	-	-
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	-	-
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	-	-
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	-	-

Client Sample ID			DUP1	TS	TB
Sample Matrix			Water	Trip Spike (liquid)	Trip Blank (liquid)
Eurofins Sample No.			S26-Ma0088342	S26-Ma0088343	S26-Ma0088344
Date Sampled			Mar 27, 2026	Mar 27, 2026	Mar 27, 2026
Test/Reference	LOR	Unit			
Polycyclic Aromatic Hydrocarbons					
Fluoranthene	0.001	mg/L	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	-	-
Naphthalene	0.001	mg/L	< 0.001	-	-
Phenanthrene	0.001	mg/L	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	-	-
Total PAH*	0.001	mg/L	< 0.001	-	-
2-Fluorobiphenyl (surr.)	1	%	INT	-	-
p-Terphenyl-d14 (surr.)	1	%	75	-	-
TRH C6-C10	1	%	-	60	-
Total Recoverable Hydrocarbons					
Naphthalene	1	%	-	77	-
TRH C6-C9	1	%	-	58	-
BTEX					
Benzene	1	%	-	89	-
Ethylbenzene	1	%	-	82	-
m&p-Xylenes	1	%	-	110	-
o-Xylene	1	%	-	88	-
Toluene	1	%	-	78	-
Xylenes - Total	1	%	-	93	-
4-Bromofluorobenzene (surr.)	1	%	-	77	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

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 - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 31, 2026	7 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 30, 2026	7 Days
Total Recoverable Hydrocarbons - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 31, 2026	7 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Sydney	Mar 30, 2026	14 Days
Eurofins Suite B4			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Sydney	Mar 30, 2026	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Sydney	Mar 30, 2026	7 Days

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Order No.: 26009811-18358
Report #: 1340718
Phone: 02 9251 8070
Fax:

Received: Mar 27, 2026 9:56 PM
Due: Apr 7, 2026
Priority: 5 Day
Contact Name: Dylan Barclay

Project Name: 26009811-VOPAK

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Split - External Lab*	Polycyclic Aromatic Hydrocarbons	BTEx	Total Recoverable Hydrocarbons	Eurofins Suite B4	BTExN and Volatile TRH	BTExN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
External Laboratory						X						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID							
1	MW1	Mar 27, 2026		Water	S26-Ma0088330					X		
2	MW2	Mar 27, 2026		Water	S26-Ma0088331		X	X	X			
3	MW3	Mar 27, 2026		Water	S26-Ma0088332		X	X	X			
4	MW4S	Mar 27, 2026		Water	S26-Ma0088333		X	X	X			
5	MW4D	Mar 27, 2026		Water	S26-Ma0088334		X	X	X			
6	MW5S	Mar 27, 2026		Water	S26-Ma0088335		X	X	X			
7	MW5D	Mar 27, 2026		Water	S26-Ma0088336		X	X	X			
8	MB01	Mar 27, 2026		Water	S26-Ma0088337		X	X	X			
9	MB02	Mar 27, 2026		Water	S26-Ma0088338		X	X	X			
10	MB03	Mar 27, 2026		Water	S26-Ma0088339		X	X	X			
11	MB04	Mar 27, 2026		Water	S26-Ma0088340		X	X	X			
12	MB05	Mar 27, 2026		Water	S26-Ma0088341		X	X	X			
13	DUP1	Mar 27, 2026		Water	S26-Ma0088342		X	X	X			
14	TS	Mar 27, 2026		Trip Spike (liquid)	S26-Ma0088343							X



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NSW 2000

Project Name: 26009811-VOPAK

Order No.: 26009811-18358
Report #: 1340718
Phone: 02 9251 8070
Fax:

Received: Mar 27, 2026 9:56 PM
Due: Apr 7, 2026
Priority: 5 Day
Contact Name: Dylan Barclay

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail

Sample Detail						Split - External Lab*	Polycyclic Aromatic Hydrocarbons	BTEX	Total Recoverable Hydrocarbons	Eurofins Suite B4	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217							X	X	X	X	X	X
15	TB	Mar 27, 2026		Trip Blank (liquid)	S26-Ma0088344						X	
16	TRIP1	Mar 27, 2026		Soil	S26-Ma0088345	X						
Test Counts						1	12	12	12	1	1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the '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 before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - 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.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

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%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as 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 are not data from your samples.
3. 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.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. 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							
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	
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							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
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	
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							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
Naphthalene	mg/L	< 0.01			0.01	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	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C10-C14	%	79			70-130	Pass	
TRH >C10-C16	%	83			70-130	Pass	
LCS - % Recovery							

Test			Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons									
TRH C10-C14			%	74			70-130	Pass	
TRH >C10-C16			%	80			70-130	Pass	
LCS - % Recovery									
Polycyclic Aromatic Hydrocarbons									
Acenaphthene			%	105			70-130	Pass	
Acenaphthylene			%	107			70-130	Pass	
Anthracene			%	101			70-130	Pass	
Benz(a)anthracene			%	96			70-130	Pass	
Benzo(a)pyrene			%	103			70-130	Pass	
Benzo(b&j)fluoranthene			%	102			70-130	Pass	
Benzo(g,h,i)perylene			%	74			70-130	Pass	
Benzo(k)fluoranthene			%	89			70-130	Pass	
Chrysene			%	104			70-130	Pass	
Dibenz(a,h)anthracene			%	80			70-130	Pass	
Fluoranthene			%	92			70-130	Pass	
Fluorene			%	101			70-130	Pass	
Indeno(1,2,3-cd)pyrene			%	83			70-130	Pass	
Naphthalene			%	102			70-130	Pass	
Phenanthrene			%	94			70-130	Pass	
Pyrene			%	101			70-130	Pass	
LCS - % Recovery									
Total Recoverable Hydrocarbons									
TRH C6-C9			%	80			70-130	Pass	
TRH C6-C10			%	80			70-130	Pass	
Naphthalene			%	73			70-130	Pass	
LCS - % Recovery									
BTEX									
Benzene			%	84			70-130	Pass	
Toluene			%	78			70-130	Pass	
Ethylbenzene			%	84			70-130	Pass	
m&p-Xylenes			%	95			70-130	Pass	
o-Xylene			%	96			70-130	Pass	
Xylenes - Total*			%	95			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	S26-Ma0088330	CP	%	82			70-130	Pass	
TRH C10-C14	S26-Ma0078547	NCP	%	85			70-130	Pass	
TRH C6-C10	S26-Ma0088330	CP	%	83			70-130	Pass	
TRH >C10-C16	S26-Ma0078547	NCP	%	91			70-130	Pass	
Naphthalene	S26-Ma0088330	CP	%	70			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S26-Ma0088330	CP	%	77			70-130	Pass	
Toluene	S26-Ma0088330	CP	%	74			70-130	Pass	
Ethylbenzene	S26-Ma0088330	CP	%	80			70-130	Pass	
m&p-Xylenes	S26-Ma0088330	CP	%	93			70-130	Pass	
o-Xylene	S26-Ma0088330	CP	%	92			70-130	Pass	
Xylenes - Total*	S26-Ma0088330	CP	%	93			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S26-Ma0088336	CP	%	96			70-130	Pass	
Acenaphthylene	S26-Ma0088336	CP	%	99			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Anthracene	S26-Ma0088336	CP	%	88			70-130	Pass	
Benz(a)anthracene	S26-Ma0088336	CP	%	88			70-130	Pass	
Benzo(a)pyrene	S26-Ma0088336	CP	%	93			70-130	Pass	
Benzo(b&j)fluoranthene	S26-Ma0088336	CP	%	88			70-130	Pass	
Benzo(k)fluoranthene	S26-Ma0088336	CP	%	84			70-130	Pass	
Chrysene	S26-Ma0088336	CP	%	90			70-130	Pass	
Fluoranthene	S26-Ma0088336	CP	%	87			70-130	Pass	
Fluorene	S26-Ma0088336	CP	%	93			70-130	Pass	
Naphthalene	S26-Ma0088336	CP	%	94			70-130	Pass	
Phenanthrene	S26-Ma0088336	CP	%	89			70-130	Pass	
Pyrene	S26-Ma0088336	CP	%	90			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S26-Ma0066228	NCP	%	104			70-130	Pass	
Anthracene	S26-Ma0066228	NCP	%	107			70-130	Pass	
Benz(a)anthracene	S26-Ma0066228	NCP	%	86			70-130	Pass	
Benzo(a)pyrene	S26-Ma0066228	NCP	%	101			70-130	Pass	
Benzo(b&j)fluoranthene	S26-Ma0066228	NCP	%	92			70-130	Pass	
Benzo(g,h,i)perylene	S26-Ma0066228	NCP	%	93			70-130	Pass	
Benzo(k)fluoranthene	S26-Ma0066228	NCP	%	103			70-130	Pass	
Chrysene	S26-Ma0066228	NCP	%	99			70-130	Pass	
Dibenz(a,h)anthracene	S26-Ma0066228	NCP	%	112			70-130	Pass	
Fluoranthene	S26-Ma0066228	NCP	%	110			70-130	Pass	
Fluorene	S26-Ma0066228	NCP	%	107			70-130	Pass	
Indeno(1,2,3-cd)pyrene	S26-Ma0066228	NCP	%	111			70-130	Pass	
Phenanthrene	S26-Ma0066228	NCP	%	103			70-130	Pass	
Pyrene	S26-Ma0066228	NCP	%	114			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S26-Ma0089174	NCP	mg/L	0.06	0.06	<1	30%	Pass	
TRH C6-C10	S26-Ma0089174	NCP	mg/L	0.23	0.23	3.0	30%	Pass	
Naphthalene	S26-Ma0089174	NCP	mg/L	0.02	0.02	2.0	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S26-Ma0089174	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S26-Ma0089174	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S26-Ma0089174	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S26-Ma0089174	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S26-Ma0089174	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S26-Ma0089174	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S26-Ma0088331	CP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S26-Ma0088331	CP	mg/L	0.03	0.02	32	30%	Fail	Q15
Naphthalene	S26-Ma0088331	CP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S26-Ma0088331	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S26-Ma0088331	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S26-Ma0088331	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S26-Ma0088331	CP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S26-Ma0088331	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S26-Ma0088331	CP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	S26-Ma0088333	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH C15-C28	S26-Ma0088333	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH C29-C36	S26-Ma0088333	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH >C10-C16	S26-Ma0088333	CP	mg/L	< 0.05	< 0.1	<1	30%	Pass
TRH >C16-C34	S26-Ma0088333	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH >C34-C40	S26-Ma0088333	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Acenaphthylene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Anthracene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benz(a)anthracene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(a)pyrene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(b&j)fluoranthene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(g,h,i)perylene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(k)fluoranthene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Chrysene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Dibenz(a,h)anthracene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluoranthene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluorene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Naphthalene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Phenanthrene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Pyrene	S26-Ma0088333	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C10-C14	S26-Ma0088339	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH C15-C28	S26-Ma0088339	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH C29-C36	S26-Ma0088339	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH >C10-C16	S26-Ma0088339	CP	mg/L	< 0.05	< 0.05	<1	30%	Pass
TRH >C16-C34	S26-Ma0088339	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
TRH >C34-C40	S26-Ma0088339	CP	mg/L	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Acenaphthylene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Anthracene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benz(a)anthracene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(a)pyrene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(b&j)fluoranthene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(g,h,i)perylene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Benzo(k)fluoranthene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Chrysene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Dibenz(a,h)anthracene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluoranthene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Fluorene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Naphthalene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Phenanthrene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Pyrene	S26-Ma0088339	CP	mg/L	< 0.001	< 0.001	<1	30%	Pass

Comments

Report 1340718-W-V2 (amendment to report 1340718-W) has been issued with amended receipt conditions for holding time as sampling dates were added after initial log in.

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.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
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:

Bonnie Pu	Analytical Services Manager
Indira Vellore Kesavan	Senior Analyst-Organic
Raymond Siu	Senior Analyst-Volatile



Glenn Jackson
Managing Director

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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Appendix C

Quality Assurance & Quality Control Assessment



Table C: QA/QC Assessment

Data Quality Objective	Sampling Frequency	Frequency Achieved	DQI	DQI Met?
Precision				
Intra-Laboratory Field Duplicates	1/20 samples	Yes. 1 intra-laboratory duplicate for 12 primary groundwater samples	>5xLOR: 30% RPD	No. RPD of TPH/TRHs (C10-14, F2) in MW2/DUP1 was above the acceptable limit. Attributed to sample heterogeneity. Data considered useable for this assessment.
Inter-Laboratory Field Duplicates	1/20 samples	Yes. 1 intra-laboratory duplicates for 12 primary groundwater samples	>5xLOR: 30% RPD	No. RPD of TPH (C10-14) in MW2/TRIP1 was above the acceptable limit. Attributed to sample heterogeneity and separate processes of the two different laboratories. Data considered useable for this assessment.
Laboratory duplicates	1/20 samples	Yes	>5xLOR: 50% RPD	Yes
Laboratory method blanks	1/10 samples	Yes	< LOR	Yes
Accuracy				
Matrix spikes	1/10 samples	Yes	Acceptable recoveries: 60-140% for organics	Yes.
Laboratory control spike	1/10 samples	Yes	As Matrix spikes	Yes.
Surrogate spike	1/10 samples	Yes	As Matrix spikes	Yes.
Representativeness				
Sampling handling storage and transport appropriate for media and analytes	All	Yes	Received by laboratory cooled and with containers in good condition	Yes
Rinsate blanks	NA	NA	<LOR	NA – no rinsate sample collected due to general use of dedicated sampling equipment and limited opportunity for cross contamination between the groundwater sampling locations.
Trip Spike	NA	NA	Acceptable recoveries:	No. The trip spike recoveries were between 58% and 110%, indicating some loss of BTEX during the fieldwork. However, no BTEX was

Data Quality Objective	Sampling Frequency	Frequency Achieved	DQI	DQI Met?
			70-130%	encountered in the 12 wells sampled and low to medium TPH/TRH chains in MW2 was encountered which coincides with the concentrations encountered in MW2 previously in the 2024 monitoring round. Therefore, this TS discrepancy is not considered to affect the overall useability of the data.
Trip Blank	1/batch	Yes	<LOR/as specified by laboratory	Yes.
Samples extracted and analysed within holding times.	All	Yes	Hold Times: 7 days - organics 6 months – inorganics	Yes.
Comparability				
Standard operating procedures used for sample collection and handling (including decontamination)	All Samples	Yes	Yes	Yes
Standard analytical methods used for all analyses	All Samples	Yes	Yes	Yes
Consistent field conditions, sampling staff and laboratory analysis	All Samples	Yes	Yes	Yes
Limits of reporting appropriate and consistent	All Samples	Yes	Yes	No. Some limits of reporting were above the adopted criteria for PAHs, however, is considered not to affect the overall useability of the data.
Completeness				
GME logs and COCs completed and appropriate	All Samples	Yes	Yes	Yes, GME logs and laboratory certificates are presented in Appendices D and B, respectively.
Appropriate documentation for testing	All Samples	Yes	Yes	Yes
Data set to be 95% complete after validation	All Samples	Yes	Yes	Yes

Appendix D

Groundwater Monitoring Field Logs



Hydrosleeve Deployment Data Form

Job Information

Date: 23/3/26	Project Number:
Project Name: Vopak	Operator: DB
Site Location: Botany Bay	Weather: Rainy

Deployment Details

Well ID	SWL mTOC	Well Depth	Available Water Column	LNAPL	Comments / observations
MW23	4.31	5.92			
MW22	4.19	5.97			
MW21	4.10	5.94			
MW20	4.22	5.49			
MW9	3.68	5.27			
MW10	3.72	8.08			
MW26	3.71	4.32	0.61		Boiler needed
MW8	3.72	7.36			
MW7	3.66	8.07			
MW13	3.57	6.56		Possible	IP-constant sound at 3.57, IP only
MW27	3.59	5.69			
MW16	1.33	2.29	0.96		Boiler needed
MW12	3.74	7.08			Hydrocarbon odour
MW11	3.81	7.22			Orange Algae
MW2	3.66	7.30			
MW3	3.69	5.86			
MW19	3.66	6.96			
MW55	3.60	4.66			Boiler needed
MW5D	3.64	26.76			
MW17	3.68	5.74			

Example: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour

Field Notes

Cannot open: MW2, MW1 - mechanic opened
No access: MW4S, MW4D opened
Access obtained

Hydrosleeve Deployment Data Form

Job Information	
Date: 23/3/26	
Project Name:	Project Number:
Site Location:	Operator:
	Weather:

[illegible]

Example: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour

Field Notes

Hydrosleeve Sampling Data Form

Geosyntec
consultants

Job Information	
Date: 25/3/26	
Project Name: Uopak	Project Number: 2600984
Site Location: Sae B	Operator: DB
	Weather: Sunny

Water Quality Parameters							Comments / observations
Well ID	SWL mTOC	pH	Temp °C	Cond US/cm µS/cm	DO ppm	Redox mV	
MW23		7.70	21.7	697	5.49	46.7	Slight hydrocarbon odour, Moderate turbid, (MT), orange algae
MW22		6.60	22.6	984	3.94	66.3	Clear, LT, NO, orange algae
MW21		7.00	22.6	1345	4.99	58.1	Clear, LT, NO, orange algae
MW20		7.33	23.1	939	5.17	85.6	Clear, LT, NO, orange algae
MW9		7.24	24.2	843	0.35	-63.0	Brown/orange, NO, lot of orange algae, MT
MW2		7.18	23.8	752	0.72	-116.7	Clear, LT, NO, DUP1, TRIP1
MW10		7.80	23.5	752	2.86	-94.3	Clear, LT, hydrocarbon odour, orange algae DUP2, TRIP2
MW26		7.16	24.9	980	2.74	-36.4	Clear, MT, MT , sand + algae in barrel, Hydrocarbon odour
MW8		7.90	24.5	637	4.26	-76.5	Light yellow, LT, hydrocarbon odour, minor orange algae
MW7		7.58	23.3	668	0.86	-80.8	Clear, LT, hydrocarbon odour, minor orange algae
MW13		7.37	24.8	554	1.65	-128.9	Clear, LT, strong hydrocarbon odour, minor algae
MW11		8.29	24.6	648	2.94	57.2	Strong HC odour, clear, LT, minor algae
MW3		8.05	24.2	718	2.21	-30.9	Pale yellow, LT, minor hydrocarbon odour

Example: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour

Field QC Checks			
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA

Field Notes
Hydrosleeve put back in well for WC parameters DUP1, TRIP1 at MW2, DUP2, TRIP2 at MW10 Barrel: MW26 MW7 had only slick sheen in well gate, and grey/black matter throughout hydrosleeve Hydrocarbon (HC)

P2

Hydrosleeve Sampling Data Form

Geosyntec
consultants

Job Information	
Date: 25/3/26	
Project Name: Vopak	Project Number:
Site Location:	Operator:
Weather: Sunny - hot 27/3 Rainy, windy	

Water Quality Parameters							Comments / observations
Well ID	SWL mTOC	pH	Temp °C	Conductivity S/cm	DO ppm	Redox mV	
MW19		7.35	24.4	635	1.27	-67.2	Clear, NO, LT, minor orange algae
MW12		7.01	23.4	688	1.45	-95.2	Clear, HC odour, oily specks/sheen (minor), LT
MW11		6.89	23.1	617	1.60	-129.6	Orange, HC odour, MT, alot of algae
MW16		7.40	23.0	366.2	1.83	45.1	Clear, NO, Minor HC odour, LT
MW55		6.40	24.2	547	4.38	50.1	Clear, NO, NT
MW50		5.58	21.8	44500	0.98	8.0	Clear, NO, minor algae
MW17		6.65	23.0	495.8	6.50	-2.8	Clear, NO, NT
MW18		7.05	22.1	684	2.75	36.7	Light brown, NO, MT
27/3 MW1		6.73	20.1	619	3.26	33.3	Clear, NO, NT
MW45		6.73	20.8	652	2.49	40.8	Clear, NO, MT
MW40		6.59	17.6	38167	2.40	-91.6	Clear, NO, NT
MW15		12.50	20.0	559	2.92	-310	Clear, NO, NT pH + redox probe error
MW3		13.50	22.8	1062	1.32	-499.9	Clear/light yellow, HC odour, black particulates, LT

Example: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour

Field QC Checks			
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservation?	Y	N	NA

Field Notes
* collect DRA from MW3, MW55, MW50 at MW15, pH and redox probe seem off, hydrosleeve fell into well, HS collar fell off

Hydrosleeve Sampling Data Form

Job Information	
Date: 27/3	
Project Name: Uo Pak	Project Number:
Site Location:	Operator:
	Weather: Rainy, Wind

Water Quality Parameters							
Well ID	SWL mTOC	pH	Temp °C	Cond mS/cm	DO ppm	Redox mV	Comments / observations
MBO4		8.49	19.6	619	1.48	-90.4	Clear, NO, NT, orange algae
MBO5		7.29	21.3	1362	1.37	-149.0	Clear, NO , NT, orange alga, minor HC odour
MBO3		8.18	19.3	246.6	0.92	-171.5	Clear, LT, NO
MBO2		8.72	20.7	462.8	1.89	-145.1	Clear, NT, NO
MBO1		8.12	21.0	356.4	0.70	-115.5	Clear, NT, NO, minor orangy/green algae

Example: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour

Field QC Checks				
Were air bubbles present in vials at time of collection?	Y	N	NA	
Was sample for metals field filtered prior to preservations?	Y	N	NA	

This image shows a blank, aged, cream-colored page, likely a flyleaf or endpaper from an old book. The paper has a visible texture and shows signs of wear, including creases, wrinkles, and some minor discoloration or foxing. A horizontal line is drawn across the upper portion of the page, approximately one-fifth of the way down from the top edge. In the upper right corner, above this line, the words "Field Notes" are printed in a small, black, sans-serif font. The rest of the page is empty and shows the natural aging of the paper.

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