Water Quality Monitoring Report
April 2025

Newcastle Cruising Yacht Club

File No 0-950 Water Quality Monitoring

Prepared for Newcastle Cruising Yacht Club Limited
91 Hannell Street
Wickham 2293

By **PPI Services Pty. Limited**
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Report Certification:

PPI Services Pty Ltd has prepared the accompanying report as at 29 April 2025 (the Report) for Newcastle Cruising Yacht Club (the Client) at the request of and exclusively for the use and benefit of the Client and/or its Directors.

Under the terms of its engagement, PPI Services Pty Ltd has examined the various environmental practices of project and has relied on information provided by the Client and the on-site observations of its personnel. The qualifications of personnel involved in the preparation of this Report have previously been supplied to the Client.

This Report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. PPI Services Pty Ltd is not responsible for the accuracy of information provided by other individuals or entities that is used in this Report. This Report presents our professional judgment based upon information provided and findings identified in this Report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

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Neither PPI Services Pty Ltd nor any member, associate or employee of PPI Services Pty Ltd undertakes any responsibility for any injury, loss or damage claimed by the client arising out of a claim by any third party against the Client in connection with the Report.

The Assessment has been conducted in accordance with the best practices available at the time and considers the identified hazards determined. Should any further hazards be identified at a later date, it is suggested that the processes be re-examined, and this report updated.

I hereby certify that this report includes to findings and recommendations of the assessment process.

Andrew Arnott
PPI Services Pty Ltd

Date: 29 April 2025

Introduction

PPI Services were commissioned by Newcastle Cruising Yacht Club Limited to implement a Water Quality Monitoring Programme during construction and operational phases of the Newcastle Cruising Yacht Club Marina - Lot 103, Hannell Street, Wickham. The water quality-monitoring programme was designed to monitor and assess potential impacts of Marina construction and operation activities upon the quality of receiving harbour waters.

The assessment/ Site Licence (EPL 11396) was varied in accordance with the 'Draft Notice of Licence Variation Newcastle Cruising Yacht Club (NCYC) EPL 11396', dated 20th October 2014. The revised conditions involve a visual interface probe test for the presence of hydrocarbons at two existing groundwater wells (GW1 and GW4) every six months. Should positive results for the presence of hydrocarbons be obtained further laboratory analysis and testing will be required within 30 days of the initial discovery.

During 2013 the site replaced its aging multi-chamber petrol/diesel underground fuel storage tank with a double skinned dedicated underground fuel storage tank. As of the October 2014 period report, the depth to the fill level of the interstitial space of this underground fuel storage tank is reported.

Methodology

Groundwater sampling of GW1 and GW4 was carried out with an interface probe test of each well and confirmed with a visual and olfactory assessment of a water sample drawn from each well by means of a 1 litre disposable bailer. pH was tested in the field using a hand held Hanna Instruments unit calibrated on the day.

Testing of the depth to fluid filling the underground fuel storage tank was measured from the top of the observation well. This is performed as a check to ensure the double walled tank has not developed a leak.

Sample Date 29 April 2025

Sample Locations as Per **Figure 1**

Results

Results for this sampling event are presented below:

GW1: Water at 1.86 metres and well bottom at 4.17 metres
pH 6.9
Temperature 22.7˚C
No hydrocarbon detected by interface probe
No visible hydrocarbon observed
No olfactory evidence of hydrocarbon

GW4: Water at 2.15 metres and well bottom at 3.35 metres
pH 6.7
Temperature 22.3˚C
No hydrocarbon detected by interface probe
No visible hydrocarbon observed
No olfactory evidence of hydrocarbon

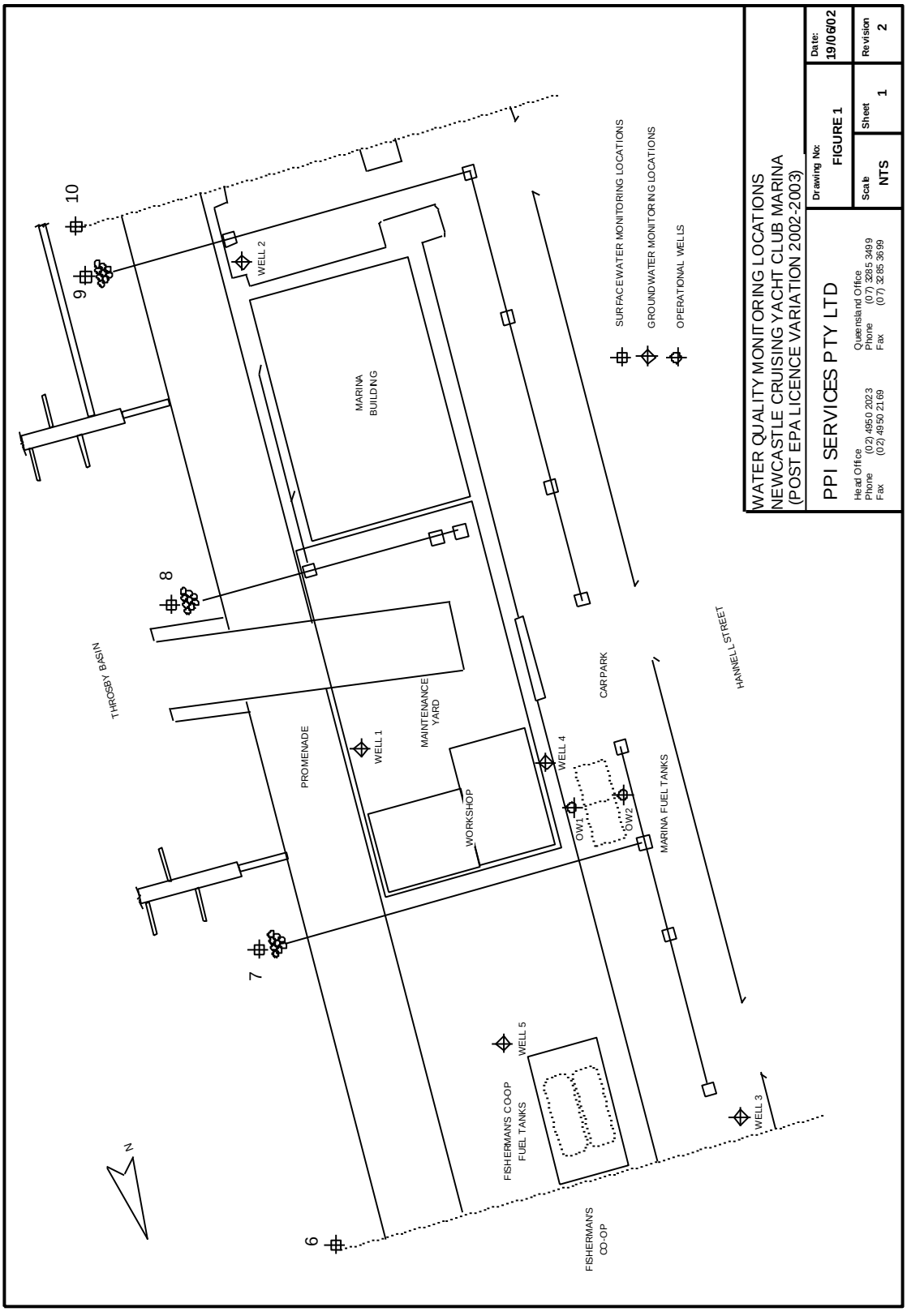
Depth to the interstitial space filler fluid (brine) is 0.92m and no hydrocarbon was detected on the surface of the interstitial space filler fluid.

Discussion

No hydrocarbons were detected in the wells sampled or in the underground storage tanks interstitial space.

During previous monitoring events it was noted that the concrete over the sites underground tank appeared to have settled altering the depth to the interstitial space fluid. The tanks interstitial space still contains brine covering the top of the internal layer of the tank allowing for the monitoring of the filler fluid level as well as the potential presence of hydrocarbon.
The fuel tank's interstitial space liquid tightness will continue to be monitored.

The next monitoring event is scheduled for October 2025.


WATER QUALITY MONITORING LOCATIONS
NEWCASTLE CRUISING YACHT CLUB MARINA
(POST EPA LICENCE VARIATION 2002-2003)
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Drawing No: FIGURE 1
Scale: NTS
Sheet 1
Date: 19/06/02
Revision 2
SURFACE WATER MONITORING LOCATIONS
GROUNDWATER MONITORING LOCATIONS
OPERATIONAL WELLS
MARINA BUILDING
WELL 2
WELL 1
WELL 4
WELL 5
WELL 3
OW1
OW2
WORKSHOP
MAINTENANCE YARD
PROMENADE
CARPARK
MARINA FUEL TANKS
FISHERMAN'S CO-OP FUEL TANKS
FISHERMAN'S CO-OP
THROSBY BASIN
HANNELL STREET
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