14 November 2025
E26489.G12.01_Rev2

The Trustee for DREP1 Mona Vale Sub Trust
Care of
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Preliminary Groundwater Seepage Analysis
159-167 Darley Street West, Mona Vale NSW

1 INTRODUCTION

1.1 Background

At the request of William Allen on behalf of The Trustee for DREP1 Mona Vale Sub Trust (the Client), EI Australia (EI) has prepared this Preliminary Groundwater Seepage Analysis (GSA) for a proposed development at 159-167 Darley Street West, Mona Vale NSW (the Site).

1.2 Proposed Development

The following documents, supplied by the Client, were used to assist in the preparation of this analysis:

- Architectural Drawings prepared by PBD Architects – Project No. 2435, latest revision A, dwgs last dated 5 November 2025;
- Concept architectural drawings prepared by PBD Architects, Project No. 2435, last dated 14 August 2025; and
- Site survey plan prepared by LTS Lockley – Referenced 52336 001_DT, latest revision A, dated 29 August 2024. The datum in the survey plan is in metres Australian Height Datum (m AHD), hence all Reduced Levels (RL) mentioned in this report are henceforth in m AHD.

EI has prepared the following reports for this site:

- Geotechnical Investigation (GI) report – Reference No. E26489.G03_Rev3, dated 14 November 2025; and
- Groundwater Level Monitoring Report No.1 – Reference No. E26489.G11.GW01, dated 25 June 2025.

Based on the provided documents, EI understands that the proposed development involves the demolition of the existing site structures and the construction of a three (3) x 6-storey residential flat bulidings, construction of 1-3 storeys of basement parking, and associated landscaping. Full details of the proposed development are set out in the accompanying Architectural Drawings and Landscape Drawings prepared by PBD Architects and Arcadia, respectively.

Based on the provided documents, EI understands that the lowest basement level is proposed to have a Finished Floor Level (FFL) of RL 1.42m AHD. A Bulk Excavation Level (BEL) of approximately RL 1.10m AHD is assumed, which includes allowance for the construction of the basement slab and drainage layers.

To achieve excavation to BEL, excavation depths up to 11.0m Below Existing Ground Level (BEGL) are expected. Locally deeper excavations may be required for footings, lift overrun pits, crane pads, and service trenches. The proposed basement is set back approximately 6m from the north-western boundary, 6.5m from the north-eastern boundary, 2.5m from the south-eastern boundary and 13 to 27m from the south-western boundary.

1.3 Assessment Objectives

The objective of this GSA is to provide an estimation of the groundwater take volumes that require pumping out during the construction and operational stages of the development, estimation of the groundwater drawdown as a result of the dewatering, and any associated ground settlements.

It should be noted that at the time of preparation of the original version of this Preliminary GSA report, the analysis had considered the conceptual architectural drawings for the Site. EI proposed to revise this groundwater seepage analysis on completion of updated geotechnical and groundwater reports.

2 SITE MODEL

A cross **Section A-A** was adopted as a conservative, representative section in this seepage analysis. This section runs through half of the basement excavation on the higher end of the site (east) of the proposed basement excavation. The location of the modelled section is shown in **Figure 2**.

2.1 Subsurface Conditions

For the purpose of this GSA, the average subsurface conditions outlined in EI's GI report have been adopted. A summary of the permeability values which were adopted for the assessment of groundwater take volumes are presented in **Table 1** below.

Table 1 Summary of Subsurface Conditions and Adopted Design Parameters

Material [1]	Adopted RL of Top of Unit (mAHD) [2]	Adopted Permeability (m/s)	Permeability Anisotropy $k_{Vertical}/k_{Horizontal}$
Fill [3]	12	1.0×10^{-5}	1.0
Residual Soil [4]	11.5	1.0×10^{-8}	1.0
Weathered Bedrock [4]	3.0	3×10^{-7}	1.0
Low Strength Sandstone [4]	-3.0	2×10^{-8}	1.0

Notes:

1 For more detailed descriptions of subsurface conditions reference should be made to EI's GI report.
2 Minor idealisations have been made to the adopted ground profile based on borehole logs.
3 The permeability values were correlated using Look (2014).
4 The permeability value was selected as the most conservative among the results obtained from the pumping head tests conducted by EI at BH1M, BH2M, and BH3M, and further informed by the permeability ranges suggested in Pells et al. (2019).

2.2 Groundwater Observations and Pump-Out Tests

Long term groundwater levels were monitored as part of EI's Groundwater Level Monitoring Report No. 1, with observations recorded between 14 January 2025 and 13 June 2025. Measurements were taken from three monitoring wells installed by EI (BH1M, BH2M, and BH3M). The recorded measurements are presented in **Table 2** below. The full report and a summary of this continuous groundwater levels are provided in **Appendix C**

Table 2 Summary of Groundwater Levels as per E26489.G11.GW01

Monitoring Well ID	Highest Groundwater RL (mAHD)	Lowest Groundwater RL (mAHD)	Highest Groundwater Depth (mBEGL)	Lowest Groundwater Depth (mBEGL)
BH1M	6.59	5.60	2.26	3.25
BH2M	4.93	3.94	3.07	4.06
BH3M	3.38	-0.17	-0.28	3.27

Based on the observed groundwater levels presented in **Table 2**, the design groundwater levels adopted for the model reflect the natural variation across the site. A representative groundwater level of RL 7.6 mAHD was assigned. This ground water level has conservatively considered an additional 1.0 m above the highest observed value at the highest point of the site to account for potential seasonal variations.

As a part of the GSA scope, EI completed pump-out tests in the monitoring wells installed by EI (BH1M, BH2M and BH3M). The pump-out test involved initial removal of water from the well, then measuring the rise in water level at regular time intervals to assess the rate of water level recovery. The data was then used to calculate the hydraulic conductivity of the material screened by each well using the Hvorslev method (results are presented graphically in **Appendix B**. The monitoring wells and pump-out test results are summarised in **Table 3** below.

Table 3 Monitoring Well Details and Pump Out Test Results

Monitoring Well/ Borehole ID	Total Well Depth (m BEGL)	Effective Screen Length (m)	Screened Section	Date of Test	Approximate RL of Groundwater Level (mAHD)	Calculated Permeability (m/s)
BH1M	15.0	6.5	Weathered Bedrock and Low Strength Sandstone	13 June 25	6.77	2.30×10^{-8}
BH2M	9.0	4.5	Weathered Bedrock	13 June 25	4.91	3.13×10^{-7}
BH3M	9.5	7.5	Residual Soil	13 June 25	2.66	1.00×10^{-8}

2.3 THE MAXIMUM EXTENT OF THE CONE OF DEPRESSION

The estimated maximum extent of the cone of depression has been determined using Sichardt's Formula, as follows:

$$R = 3000\,(H - h)\sqrt{k}$$

Where:

- R = Maximum extent of the cone of depression (m).
- H = Highest design groundwater level (m).
- h = Estimated groundwater level at the BEL due to full duration of dewatering (m).
- k = Hydraulic conductivity of the aquifer (m/s).

The coefficient of 3000 is based on empirical observations, predominantly for sandy aquifers. The lowest coefficient outlined in Sichardt's formula is approximately 1000, which would result in a smaller radius of influence. Therefore, using a coefficient of 3000 in this case is considered conservative.

Based on the formula above, the maximum extent of the cone of depression is estimated to be approximately 17 m from the basement outline. However, to maintain conservatism in the model when predicting the effective drawdown radius and potential drawdown-induced settlement due to the full duration of dewatering for the proposed development, a wider maximum extent of the cone of depression of 50 m from the basement outline has been adopted in the PLAXIS model.

2.4 Shoring System

At the time of this assessment, shoring design details for the proposed excavation shoring system had not been provided by the Client. For the purposes of this seepage analysis, the excavation was assumed to be supported by a soldier pile wall, with the wall embedded to the proposed bulk excavation level (BEL), as per the recommendations of the GI. In the absence of detailed design, the shoring system has been conservatively modelled as fully permeable in the finite element analysis.

This assessment does not assess the overall stability and embedment depth of the shoring system. Once final designs are made available, this assessment should be revised accordingly

3 GROUNDWATER TAKE ASSESSMENT

3.1 Groundwater Seepage Volumes during Construction Phase

Groundwater seepage analysis during construction has been undertaken using PLAXIS 2D. PLAXIS 2D is a commercially available finite element package intended for two dimensional analysis in geotechnical engineering. It is equipped with features to deal with various aspects of geotechnical structures and construction processes using robust and theoretically sound computational procedures. PLAXIS 2D estimates the seepage rate of water entering the excavation. This model estimates the volume of water which will be required to be dewatered during the construction of the basement and until the dewatering is turned off.

For the purpose of this modelling, it has been assumed that:

- The subsurface conditions were horizontal along the site and a representative **Section A-A** is considered in the analysis running along the basement perimeter.
- The permeability values presented in **Table 1** were adopted for modelling each of the units.
- The shoring system is assumed to be a fully permeable soldier pile wall.
- Dewatering was undertaken to the bulk excavation level of RL 1.1 mAHD.
- The maximum extent of the cone of depression has been adopted as 50 m from the basement outline, as detailed in Section 2.3 of this report. Therefore, 50 m is adopted as the extent of PLAXIS model boundary.
- A no-flow boundary line is modelled halfway into the basement, about 20 m.
- The perimeter of the shoring wall is 255 m.

The PLAXIS 2D results are presented in **Appendix A**. **Table 4** below provides the estimated groundwater inflow rate into the basement.

Table 4 Summary of Analysis Results

Inflow per m length of perimeter wall (m^3/day/m)	Inflow into excavation (m^3/day)	Total Inflow per year (ML/year)	Estimated Maximum Drawdown (m)
0.022	5.7	2.06	6.5

3.2 Assessment of Groundwater Take During Operational Phase

Based on the discussion with the Client, a drained basement using sub-soil drainage and a sump-and-pump system will be adopted as the design for the proposed development. The estimated volume of groundwater to be removed during the operational phase of development is expected to be identical to the groundwater take value during construction phase, i.e. 2.06 ML per year.

3.3 Groundwater Drawdown Induced Settlement

EI utilised PLAXIS 2D to estimate the potential drawdown-induced settlements as a result of dewatering. The maximum predicted groundwater drawdown and its associated maximum ground settlement surrounding the basement boundary are anticipated to be 6.5 m and 9mm, respectively. It should be noted that the predicted settlement accounts only for water drawdown and does not consider other factors, such as shoring wall deflection, surcharge loading, and other construction-related influences. Figures illustrating the estimated drawdown-induced settlement are provided in **Appendix A**. The dewatering drawdown contour plan beyond the basement footprint is presented in **Figure 2**.

Based on the estimated settlements, the ground outside the shoring wall is expected to experience a maximum settlement of up to 9 mm at a distance of about 16m from the shoring wall. The predicted settlement tapers to negligible values at 50m. This level of settlement is considered to pose a 'negligible' risk in terms of the category of damage risk due to dewatering, as defined by Cashman and Preene (2021), as shown in the excerpt in **Plate 1**.

Risk category[a]	*Maximum settlement (mm)*[b]	*Building tilt*[c]	*Anticipated effects*
Negligible	<10	<1/500	Superficial damage unlikely
Slight	10–50	1/500–1/200	Possible superficial damage; unlikely to have structural significance
Moderate	50–75	1/200–1/50	Expected superficial damage and possible structural damage to buildings; possible damage to rigid pipelines
Severe	75	>1/50	Expected structural damage to buildings and expected damage to rigid pipelines or possible damage to other pipelines

Source: Preene, M., *Proceedings of the Institution of Civil Engineers—Geotechnical Engineering*, 143(4), 177–190, 2000. With permission.

[a] The risk category is to be based on the more severe of the settlement or tilt criteria.
[b] Maximum settlement is based on the nearest edge of the structure to the groundwater control system.
[c] Tilt is based on rigid body rotation, assuming that all of the maximum settlement occurs as differential settlement across the width of the structure or across an element of the structure.

Plate 1 Excerpt from Cashman and Preene (2021)

Although the PLAXIS modelling provides predicted drawdown-induced ground settlement values, it would be prudent for a thorough assessment of potential risks posed on neighbouring structures to be completed by a qualified and experienced structural engineer.

4 CONCLUSIONS AND COMMENTS

Based on the findings of this report and within the limitations of available data, EI concludes that:

- Construction phase groundwater take will be approximately 2 ML per year for the proposed development.
- The above estimate is based on the following assumptions:
  - The shoring wall system is a permeable system as per **Section 2.4** of this report;
  - Continuous dewatering in order to maintain the groundwater at BEL during construction; and
  - This assessment does not take into consideration any excavation that may be required for footings, service trenches, lift pits, or crane pads. This additional excavation, if required, is not expected to affect the retention or the dewatering system.
- The operational phase groundwater take with a **drained basement** system is estimated to be identical to the construction groundwater take, i.e. 2.0 ML per year.
- The groundwater drawdown surrounding the basement boundary is predicted to be up to 6.5 m.
- The ground settlements due to the predicted groundwater drawdown behind the shoring wall, within the 50 m radius cone of depression, are estimated to be less than 9.0 mm. This level of settlement falls within the 'negligible' risk category for damage risk resulting from ground settlement due to dewatering, as per Cashman and Preene (2021). It would be prudent for potential risks to neighbouring structures to be assessed by a qualified and experienced structural engineer.
- On the basis of the results presented in this Preliminary GSA report, it is our opinion that a drained basement design is geotechnically acceptable, and that tanked basement is not warranted.
- Should any design or construction conditions differ from that adopted in this report, then this GSA should be reviewed and updated as required.

It should be noted that the values for annual groundwater seepage and groundwater induced settlements are preliminary on the basis of the extent of the geotechnical investigations. As stated in EI's 2025 GI report, additional geotechnical investigations should be carried out across the Site to confirm the depth and quality of bedrock across the Site. Additional groundwater wells should also be installed, with further groundwater monitoring, to verify that the conclusions & assumptions across the Site are consistent with this GSA report. Since the preparation of the original version of this GSA report, EI has carried out the drilling of four additional boreholes, including installation of 2 groundwater wells for additional groundwater monitoring. EI is currently working towards revising the GI report prior to reassessment of the groundwater results presented in this GSA report.

5 LIMITATIONS

This report has been prepared for the exclusive use of The Trustee for DREP1 Mona Vale Sub Trust who is the only intended beneficiary of EI's work. The scope of the inspections carried out for the purpose of this report is limited to those agreed with The Trustee for DREP1 Mona Vale Sub Trust.

No other party should rely on the document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

EI has used a degree of care and skill ordinarily exercised in similar tasks by reputable members of the geotechnical industry in Australia as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices and attachments.

The conclusions presented in this report are based on a limited assessment of conditions, with specific locations chosen to be as representative as possible under the given circumstances.

EI's professional opinions are reasonable and based on its professional judgment, experience, training and results from analytical data. EI may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified by EI.

EI's professional opinions contained in this document are subject to modification if additional information is obtained through further investigation, observations, or validation testing and analysis during remedial activities. In some cases, further testing and analysis may be required, which may result in a further report with different conclusions.

6 CLOSURE

Please do not hesitate to contact the undersigned should you have any questions.

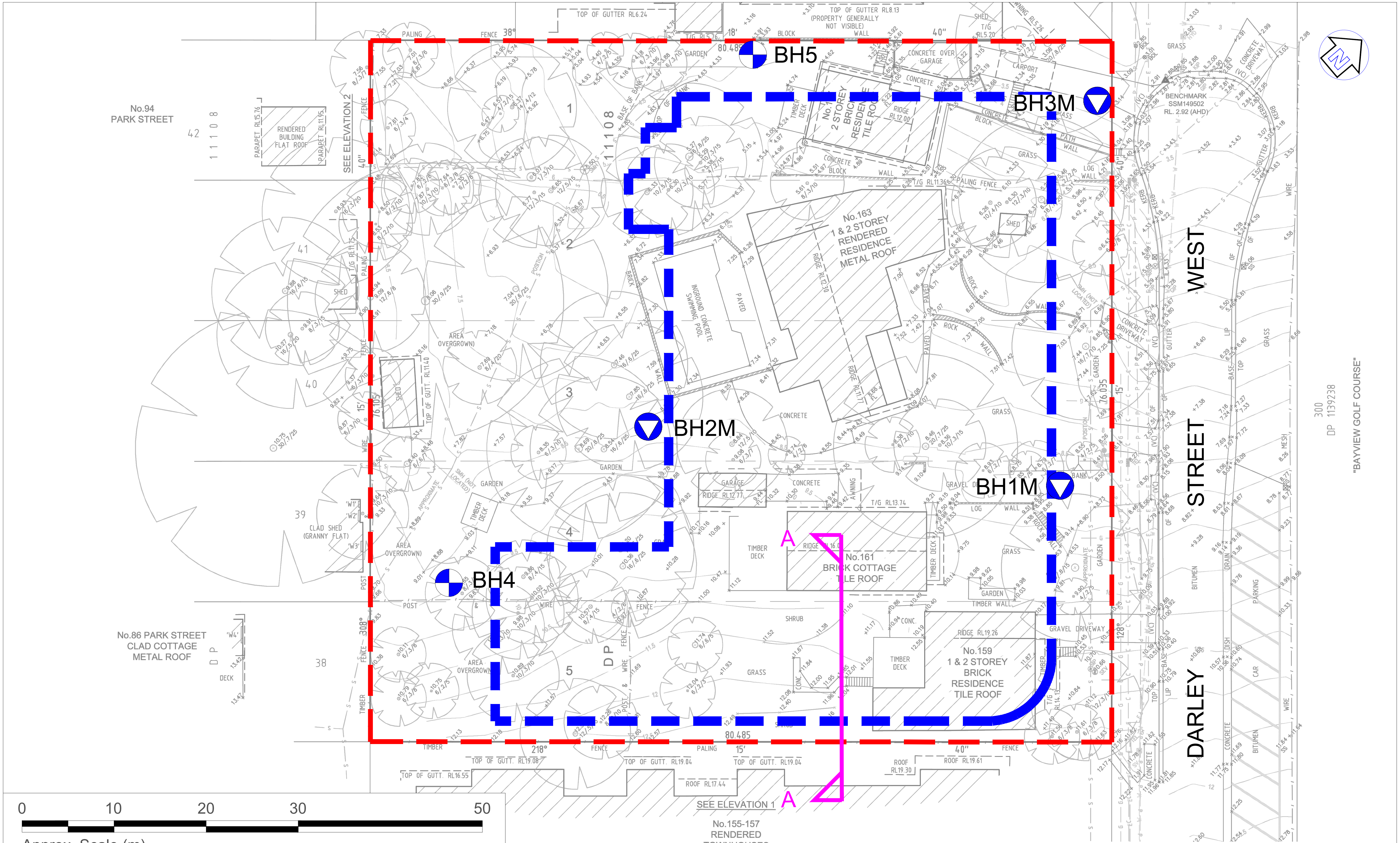
For and on behalf of
EI Australia

Author	Technical Reviewer
Stephen Kim Associate Geotechnical Engineer	James Brooker Senior Geotechnical Engineer

Attachments:

– Analysed Section Plan
Figure 2 – Dewatering Drawdown Contour Plan
Appendix A – PLAXIS 2D Model and Results
Appendix B – Pump Out Tests
Appendix C – Groundwater Level Monitoring Report No. 1
Appendix D – Important Information

Figures



Map Source: LTS Surveyors - Ref No. 52336-001DT, Sheet 1 of 2, Revision. A, Dated 29 September 2024

LEGEND

- Analysed Section
- Proposed Site Boundary
- Proposed Basement Boundary
- Borehole Locations
- Monitoring Well Locations

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Drawn:	E.W.
Approved:	S.K.
Date:	8/09/2025

Darley Services Pty Ltd
Preliminary Groundwater Seepage Analysis
159-167 Darley Street West, Mona Vale
Analysed Section Plan

Figure: 1

Project: E26489.G12.01

LEGEND

- Site boundary
- Basement boundary
- Predicted drawdown contour (m)

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Approved:	S.K.
Date:	8/09/2025

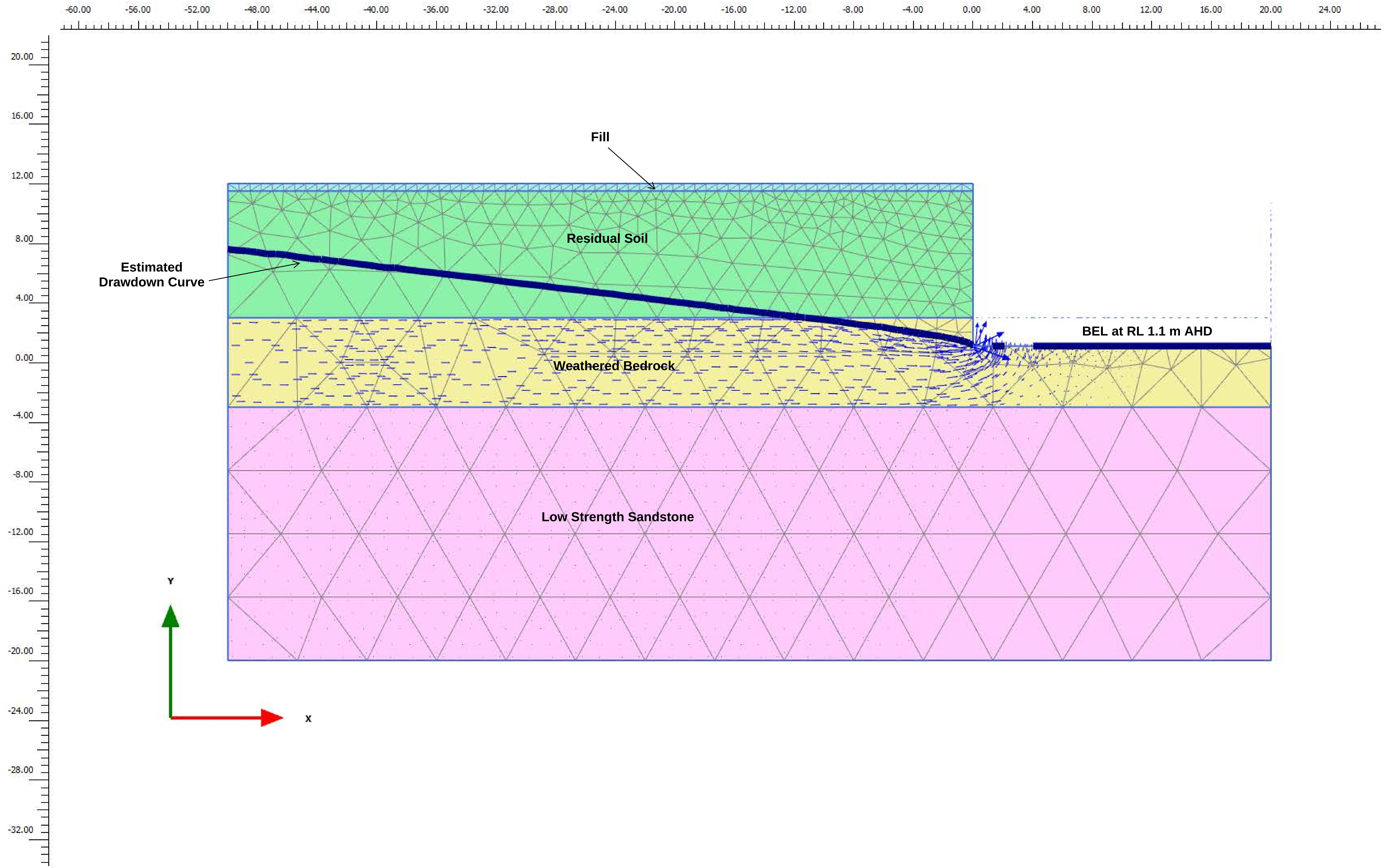
Darley Services Pty Ltd
Preliminary Groundwater Seepage Analysis
159-167 Darley Street West, Mona Vale, NSW
Dewatering Drawdown Contour Plan

Figure:
2

Project: E26489.G12.01

Appendix A – PLAXIS 2D Model and Results

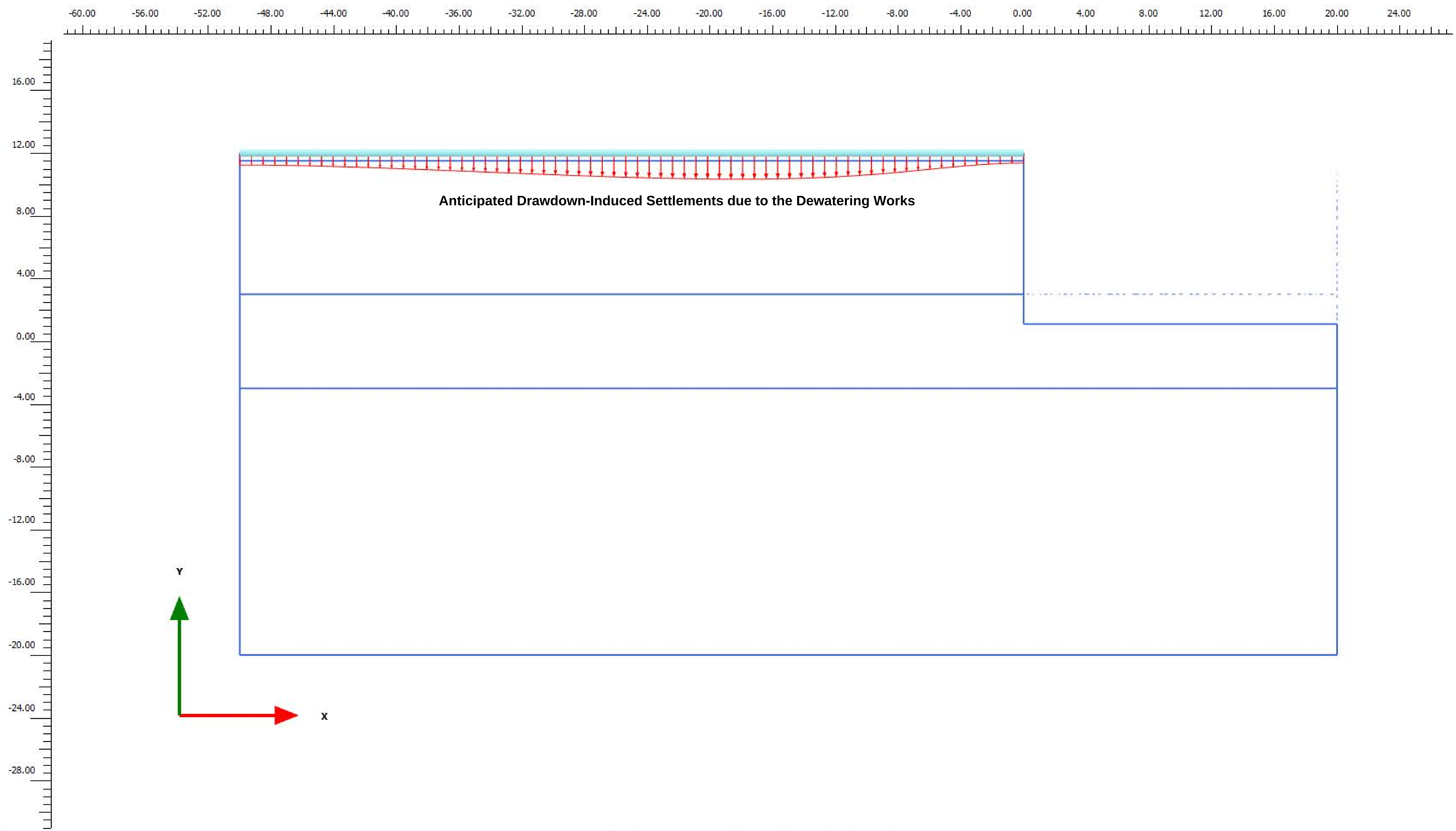
Output Version 2024.2.0.1144



Project description		Date
Groundwater Flow and Drawdown Curve for Section A-A		8/09/2025

Project filename	Step	Company
E26489.G12 - GSA SK	6	EI Australia

Z:\07 - Projects\E26489_IPM Property_Mona Vale_DSI_GI\04_Working Docs\Data Analysis\G12 - GSA\E26489.G12 - GSA SK.p2dxdat\



Total displacements u_y (scaled up 200 times)

Maximum value = $-3.146*10^{-3}$ m

Minimum value = $-8.289*10^{-3}$ m

PLAXIS 2D	Project description: Drawdown-Induced Settlements beyond the Shoring Wall (Section A-A)		Date: 8/09/2025
	Project filename: E26489.G12 - GSA SK	Step: 6	Company: EI Australia

Appendix B – Pump Out Tests

Rising Head Permeability Test

EI Job No.	E26489.G12		Test Date	13/06/2024
By	DS		Location	BH1M

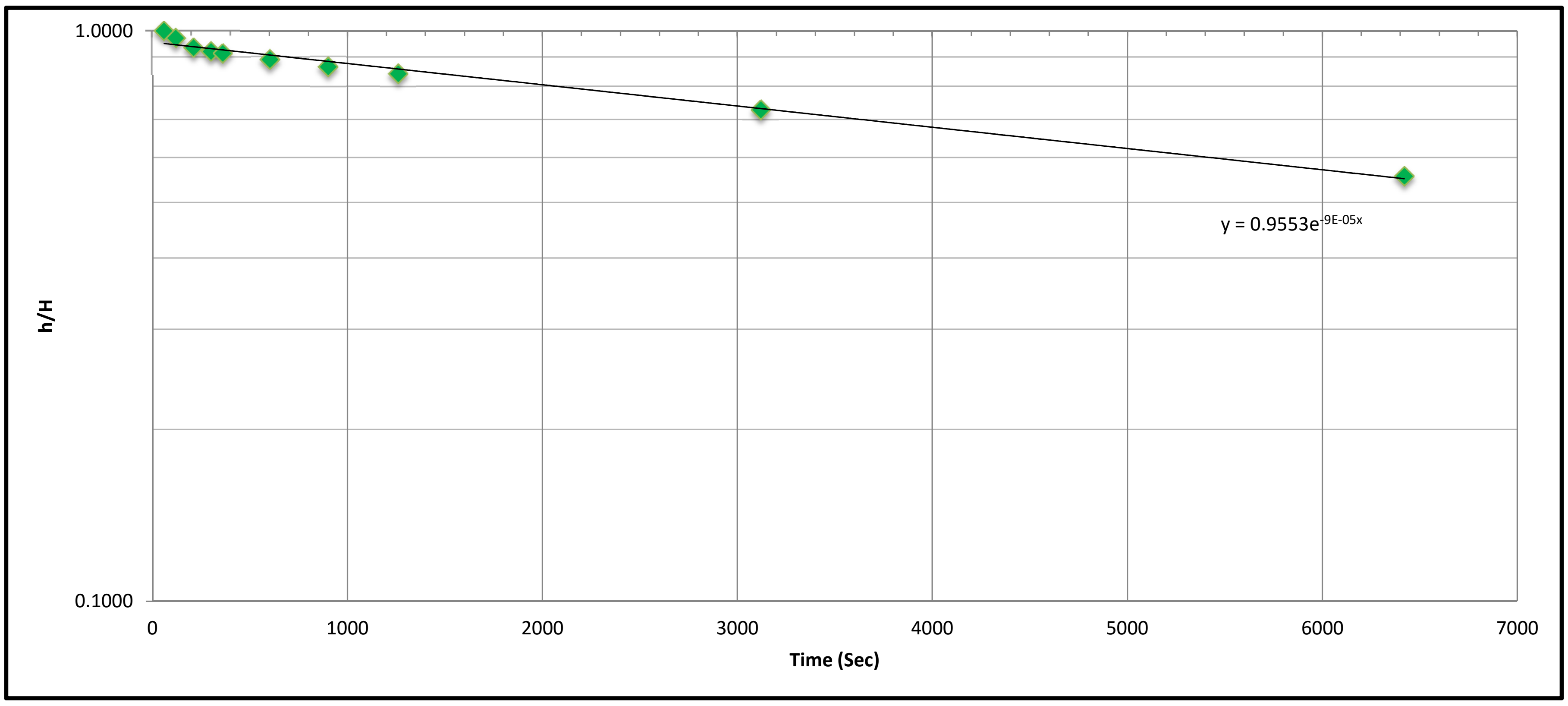
Borehole Detail

BH No.	BH3M		
Casing Stick-up (m)	-0.09		
Effective Piezo Screen Length (m)	6.5		
Piezo Radius r (m)	0.025		
Bore radium (drillhole radius) (m)	0.038	auger radius = 0.05; core radius is 0.038	
Depth of the piezometer (m BGL)	15		
Static Water Level (m BToC)	2.17		t1
Lag time T0 (sec)	10537.83		t2
			h1
Calculated Permeability k	**2.30E-08**	m/sec	h2

Based on Hvorslev Method

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

Time (mins)	Time (sec)	Depth to water (ft BToC)	Depth to water (m BToC)	Change in Level (m)	h/H
Static			2.17		
1	60		14.27	12.10	1.0000
2	120		13.93	11.76	0.9719
3.5	210		13.49	11.32	0.9355
5	300		13.32	11.15	0.9215
6	360		13.22	11.05	0.9132
10	600		12.96	10.79	0.8917
15	900		12.65	10.48	0.8661
21	1260		12.36	10.19	0.8421
52	3120		10.96	8.79	0.7264
107	6420		8.91	6.74	0.5570



Rising Head Permeability Test

EI Job No.	E26489.G12		Test Date	13/06/2024
By	DS		Location	BH2M

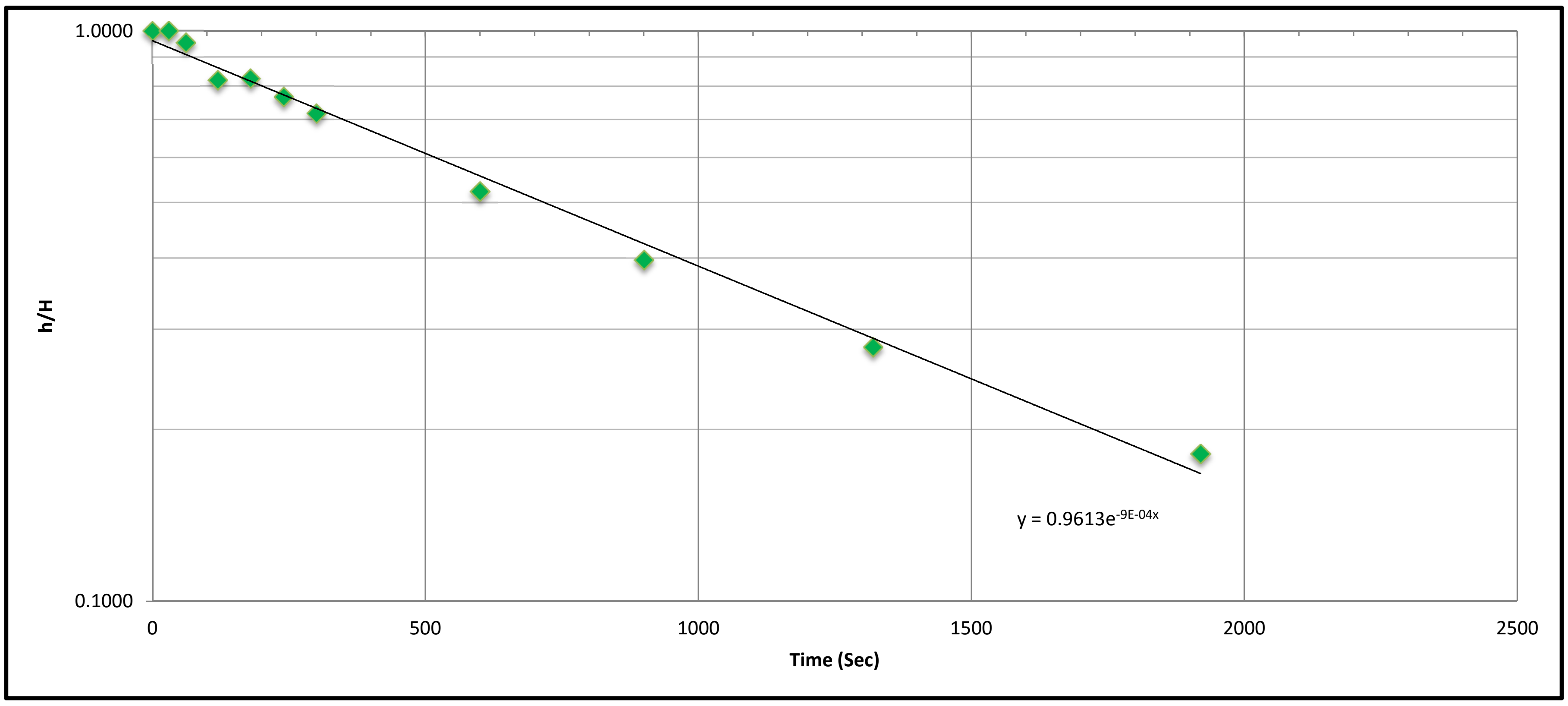
Borehole Detail

BH No.	BH3M	
Casing Stick-up (m)	-0.1	
Effective Piezo Screen Length (m)	4.5	
Piezo Radius r (m)	0.025	
Bore radium (drillhole radius) (m)	0.038	auger radius = 0.05; core radius is 0.038
Depth of the piezometer (m BGL)	9	
Static Water Level (m BToC)	3.19	t1
Lag time T0 (sec)	1058.87	t2
		h1
Calculated Permeability k	**3.13E-07**	m/sec h2

Based on Hvorslev Method

$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$

Time (mins)	Time (sec)	Depth to water (ft BToC)	Depth to water (m BToC)	Change in Level (m)	h/H
Static			3.19		
0	0		8.43	5.24	1.0000
0.5	30		8.43	5.24	1.0000
1	60		8.19	5.00	0.9542
2	120		7.48	4.29	0.8187
3	180		7.51	4.32	0.8244
4	240		7.21	4.02	0.7672
5	300		6.95	3.76	0.7176
10	600		5.93	2.74	0.5229
15	900		5.27	2.08	0.3969
22	1320		4.65	1.46	0.2786
32	1920		4.14	0.95	0.1813



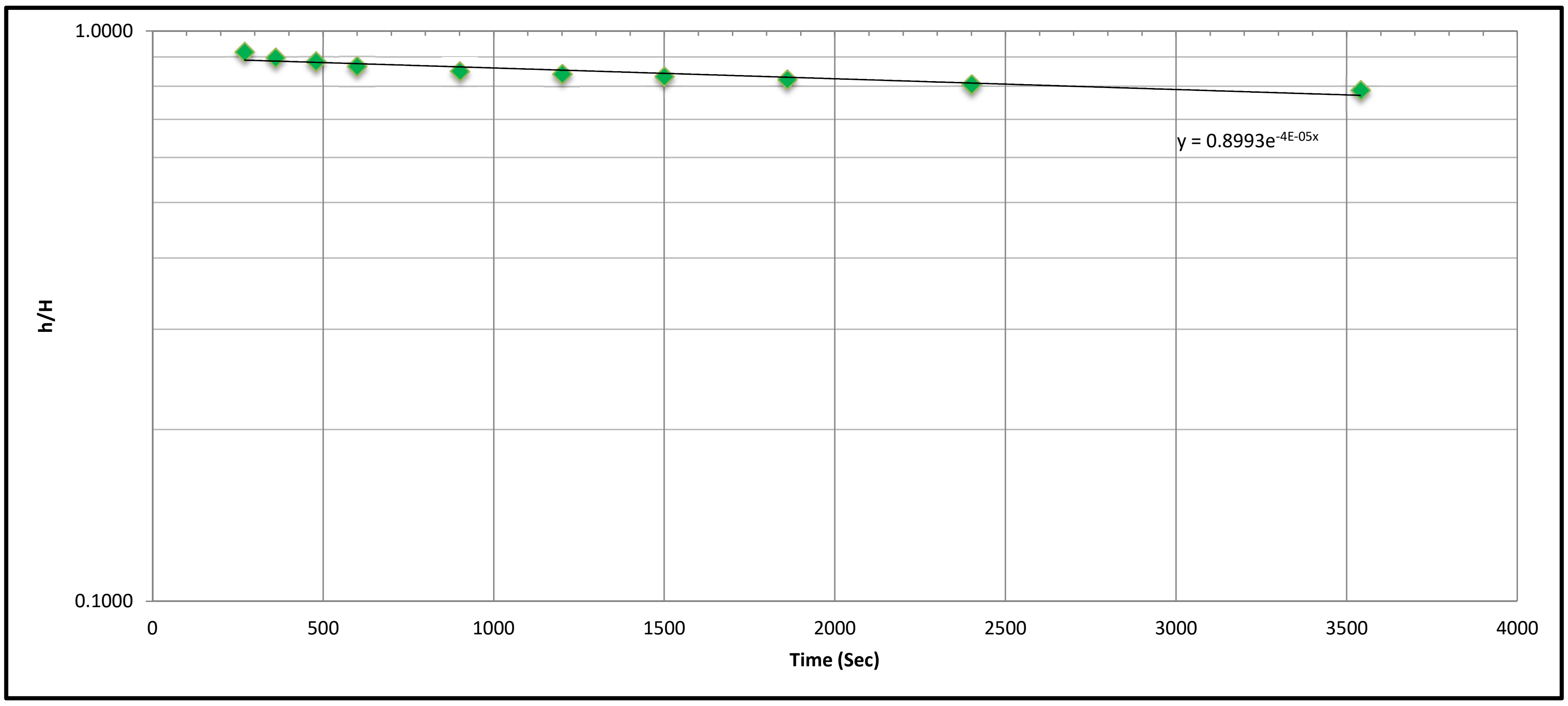
Rising Head Permeability Test

EI Job No.	E26489.G12		Test Date	13/06/2024
By	DS		Location	BH3M

Borehole Detail

BH No.	BH3M			Based on Hvorslev Method
Casing Stick-up (m)	-0.09			$$K = \frac{r^2 \ln(L/R)}{2LT_o}$$
Effective Piezo Screen Length (m)	7.5			
Piezo Radius r (m)	0.025			
Bore radium (drillhole radius) (m)	0.038	auger radius = 0.05; core radius is 0.038		
Depth of the piezometer (m BGL)	9.5			
Static Water Level (m BToC)	0.53		t1	
Lag time T0 (sec)	22184.01		t2	
			h1	
Calculated Permeability k	**1.00E-08**	m/sec	h2	

Time (mins)	Time (sec)	Depth to water (ft BToC)	Depth to water (m BToC)	Change in Level (m)	h/H
Static			0.53		
1	60		8.92	8.39	1.0000
2.5	150		8.40	7.87	0.9380
3	180			-0.53	-0.0632
4.5	270		8.24	7.71	0.9190
6	360		8.06	7.53	0.8975
8	480		7.95	7.42	0.8844
10	600		7.80	7.27	0.8665
15	900		7.66	7.13	0.8498
20	1200		7.58	7.05	0.8403
25	1500		7.51	6.98	0.8319
31	1860		7.42	6.89	0.8212
40	2400		7.29	6.76	0.8057
59	3540		7.14	6.61	0.7878



Appendix C – Groundwater Level Monitoring Report No.1

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25 June 2025
E26489.G11.GW01

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care of
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SYDNEY NSW 2000

Groundwater Level Monitoring Report No. 1
159-167 Darley Street West, Mona Vale NSW

EI Australia (EI) has been engaged to prepare this factual letter report to provide continual groundwater levels at the above site. The monitoring period in this report is from Tuesday 14 January 2025 to Friday 13 June 2025.

Groundwater levels were collected remotely during the monitoring period using data loggers installed within monitoring wells. The data logger / monitoring well details and the groundwater levels observed during the monitoring period are summarised in **Table 1** & **Table 2** below.

Table 1 Summary of Data Logger & Well Installation Details

Monitoring Well ID	Top of Well RL (mAHD)	Existing Ground RL (mAHD)	Well Stickup (m)	Well Depth Below Ground (m) [1]
BH1M	8.76	8.85	-0.09	14.80
BH2M	7.91	8.00	-0.09	8.82
BH3M	3.00	3.10	-0.10	9.48

Note 1: The level of the bottom of the well is based on manual measurements after the well installation. The measurement accounts for any variation of the well depth caused by infilling of material through the well screen.

Table 2 Summary of Groundwater Levels

Monitoring Well ID	Average Groundwater RL (mAHD)	Highest Groundwater RL (mAHD)	Lowest Groundwater RL (mAHD)	Highest Groundwater Depth (m Below Ground)	Lowest Groundwater Depth (m Below Ground)
BH1M	5.89	6.59 [2]	5.60	2.26 [2]	3.25
BH2M	4.35	4.93	3.94	3.07	4.06
BH3M	2.40	3.38	-0.17	-0.28	3.27

Note 1: Data logger malfunction in BH1M between 29 April & 13 June 2025.

Please do not hesitate to contact the undersigned should you have any questions.

For and on behalf of:
EI AUSTRALIA

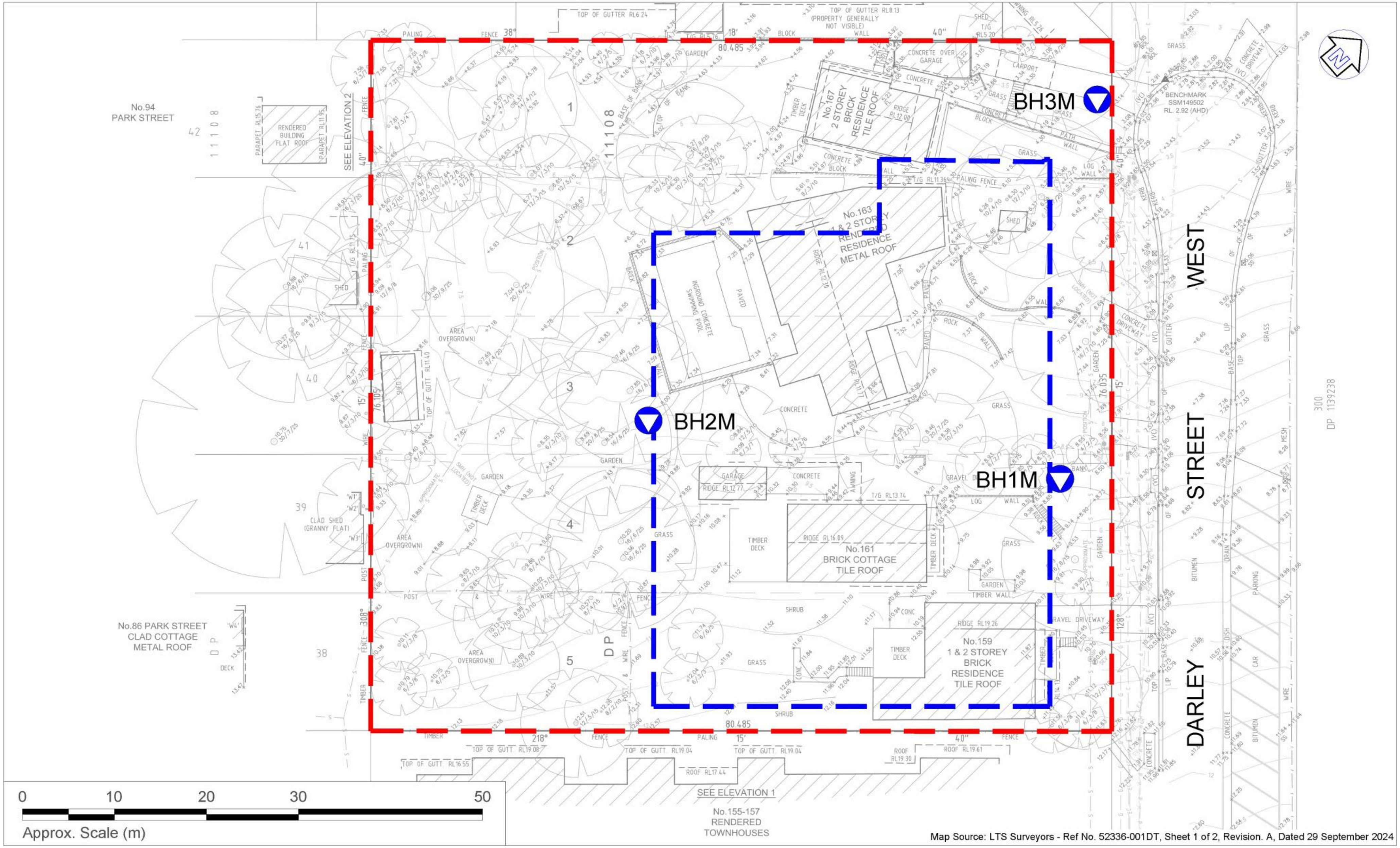
Author

Jacky Ong-Phung
Graduate Geotechnical Engineer

Reviewer

James Brooker
Senior Geotechnical Engineer

Attachments:	Figure 1:	Data Logger Location Plan
	Figure 2-4:	Groundwater Level, Daily Rainfall vs. Time From 14 January 2025 to 13 June 2025
	Important Information	



LEGEND *All location are in approximation

- Proposed site boundary
- Proposed basement boundary
- Monitoring Well Locations

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Practical Solutions for Built Environments
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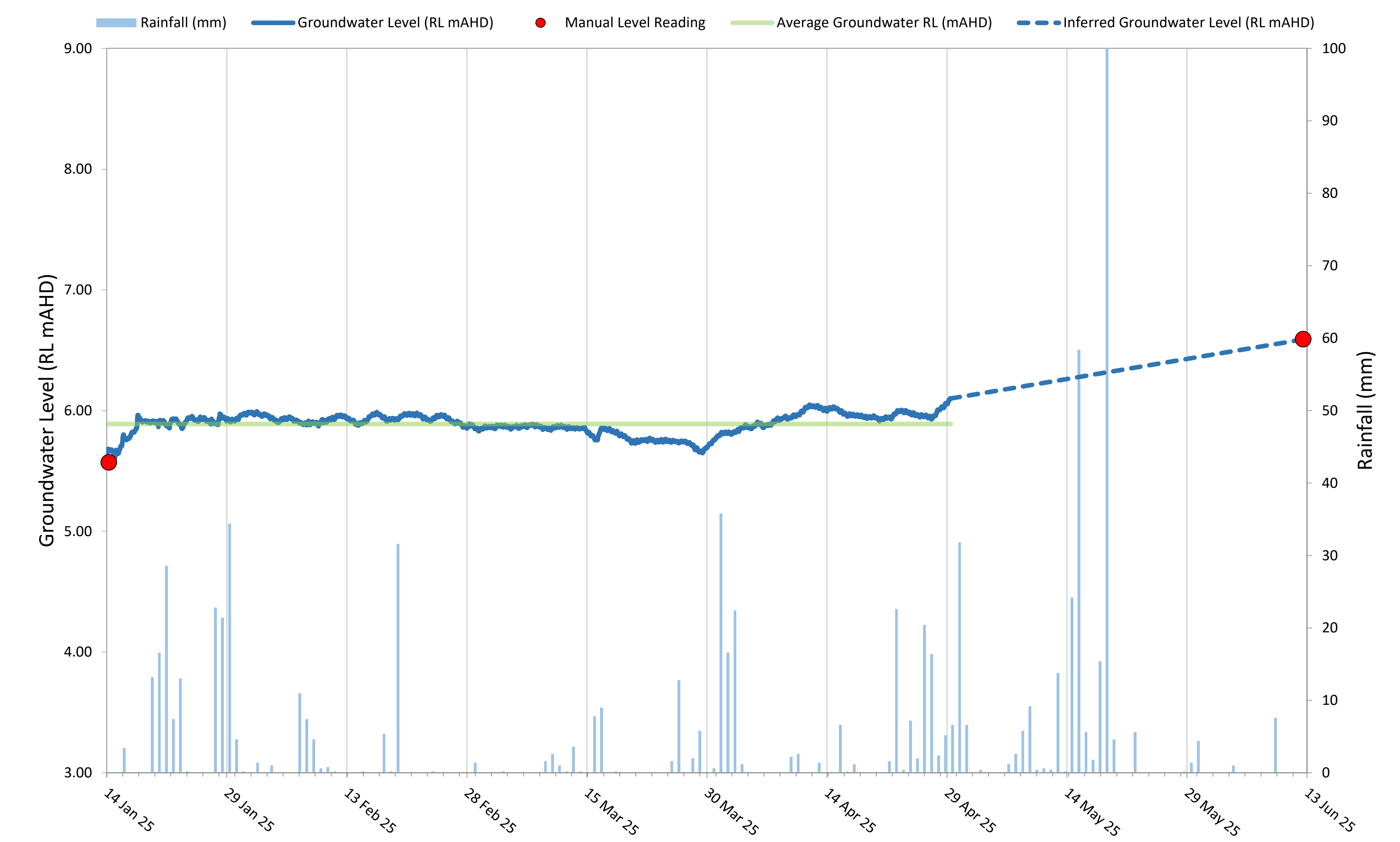
Drawn:	J.O.
Approved:	JB
Date:	15-1-24

IPM Property Pty Ltd
Groundwater Monitoring
159-167 Darley Street West, Mona Vale

Data Logger Location Plan

Figure: 1

Project: E26489.G11



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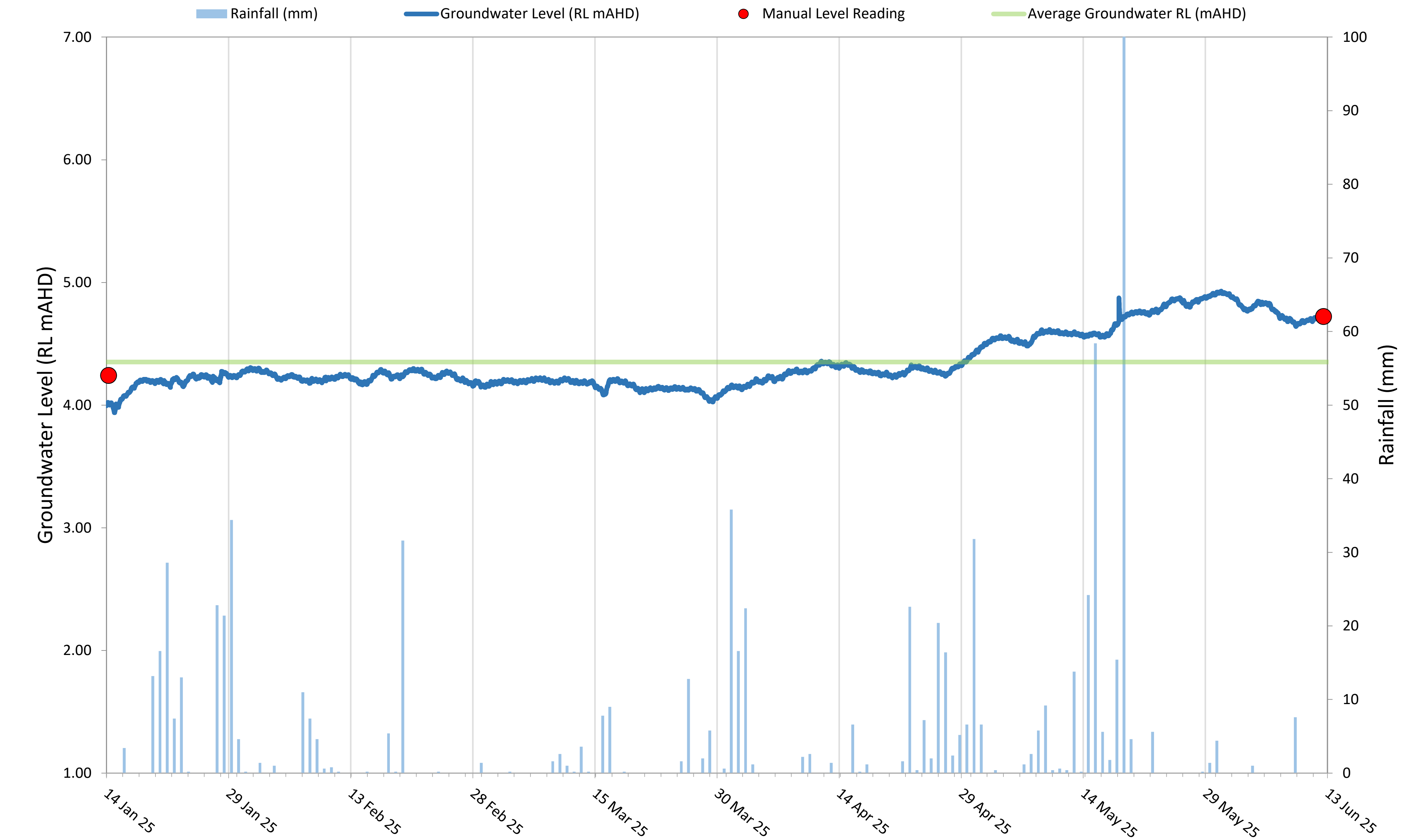
	Approved:	JB		
	Date:	25/06/2025		Project: E26489.G11.GW01



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Drawn:	JO
Approved:	JB
Date:	25/06/2025

Darley Services Pty Ltd

Groundwater Level Monitoring

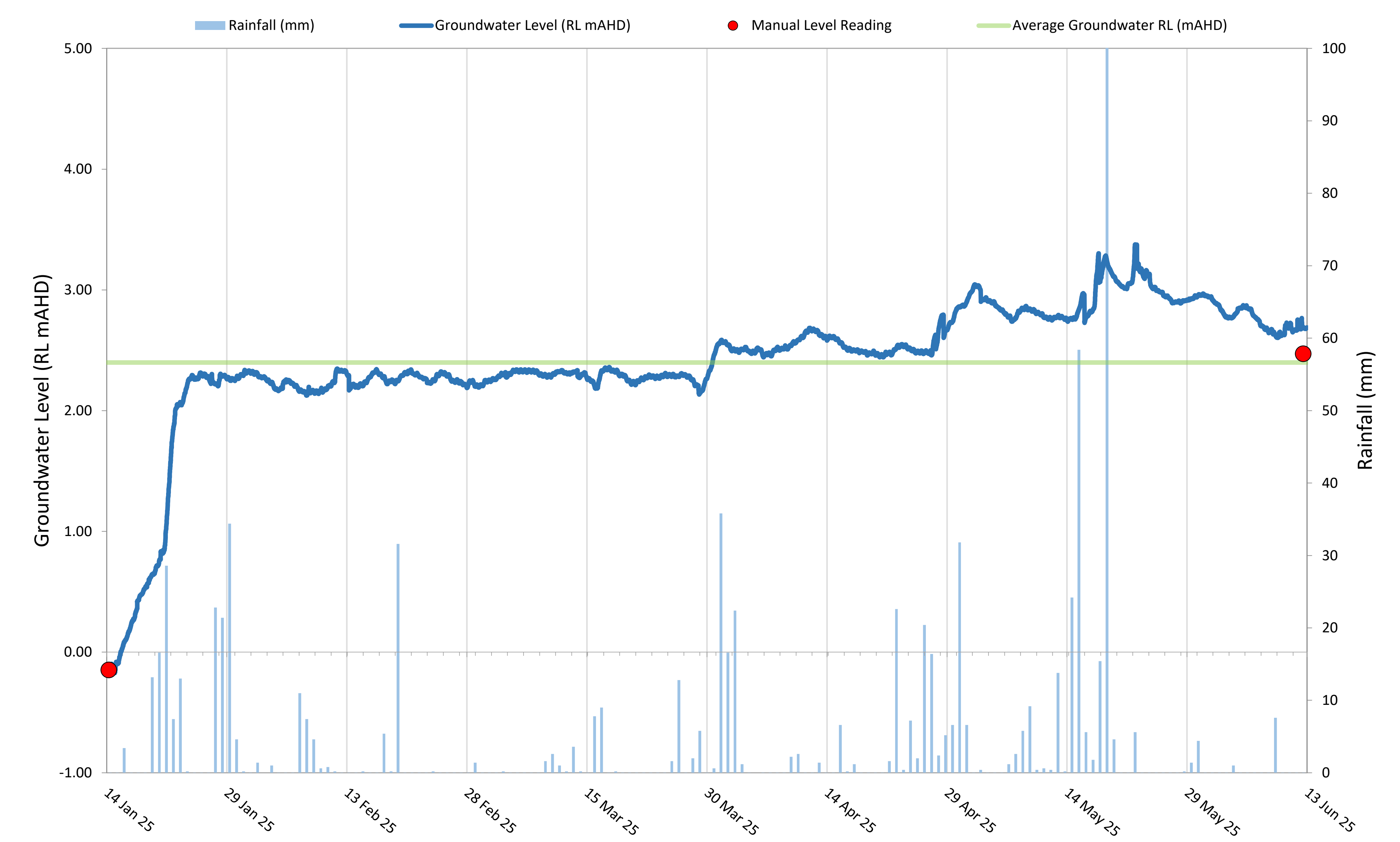
159-167 Darley Street West, Mona Vale NSW

BH2M

Figure:

3

Project: E26489.G11.GW01



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	Approved:	JB		**4**
	Date:	25/06/2025		Project: E26489.G11.GW01

Appendix D – Important Information

Important Information

SCOPE OF SERVICES

The geotechnical report ("the report") has been prepared in accordance with the scope of services as set out in the contract, or as otherwise agreed, between the Client And EI Australia ("EI"). The scope of work may have been limited by a range of factors such as time, budget, access and/or site disturbance constraints.

RELIANCE ON DATA

EI has relied on data provided by the Client and other individuals and organizations, to prepare the report. Such data may include surveys, analyses, designs, maps and plans. EI has not verified the accuracy or completeness of the data except as stated in the report. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations ("conclusions") are based in whole or part on the data, EI will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to EI.

GEOTECHNICAL ENGINEERING

Geotechnical engineering is based extensively on judgment and opinion. It is far less exact than other engineering disciplines. Geotechnical engineering reports are prepared for a specific client, for a specific project and to meet specific needs, and may not be adequate for other clients or other purposes (e.g. a report prepared for a consulting civil engineer may not be adequate for a construction contractor). The report should not be used for other than its intended purpose without seeking additional geotechnical advice. Also, unless further geotechnical advice is obtained, the report cannot be used where the nature and/or details of the proposed development are changed.

LIMITATIONS OF SITE INVESTIGATION

The investigation programme undertaken is a professional estimate of the scope of investigation required to provide a general profile of subsurface conditions. The data derived from the site investigation programme and subsequent laboratory testing are extrapolated across the site to form an inferred geological model, and an engineering opinion is rendered about overall subsurface conditions and their likely behaviour with regard to the proposed development. Despite investigation, the actual conditions at the site might differ from those inferred to exist, since no subsurface exploration program, no matter how comprehensive, can reveal all subsurface details and anomalies. The engineering logs are the subjective interpretation of subsurface conditions at a particular location and time, made by trained personnel. The actual interface between materials may be more gradual or abrupt than a report indicates.

SUBSURFACE CONDITIONS ARE TIME DEPENDENT

Subsurface conditions can be modified by changing natural forces or man-made influences. The report is based on conditions that existed at the time of subsurface exploration. Construction operations adjacent to the site, and natural events such as floods, or ground water fluctuations, may also affect subsurface conditions, and thus the continuing adequacy of a geotechnical report. EI should be kept appraised of any such events, and should be consulted to determine if any additional tests are necessary.

VERIFICATION OF SITE CONDITIONS

Where ground conditions encountered at the site differ significantly from those anticipated in the report, either due to natural variability of subsurface conditions or construction activities, it is a condition of the report that EI be notified of any variations and be provided with an opportunity to review the recommendations of this report. Recognition of change of soil and rock conditions requires experience and it is recommended that a suitably experienced geotechnical engineer be engaged to visit the site with sufficient frequency to detect if conditions have changed significantly.

REPRODUCTION OF REPORTS

This report is the subject of copyright and shall not be reproduced either totally or in part without the express permission of this Company. Where information from the accompanying report is to be included in contract documents or engineering specification for the project, the entire report should be included in order to minimize the likelihood of misinterpretation from logs.

REPORT FOR BENEFIT OF CLIENT

The report has been prepared for the benefit of the Client and no other party. EI assumes no responsibility and will not be liable to any other person or organisation for or in relation to any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report (including without limitation matters arising from any negligent act or omission of EI or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in the report). Other parties should not rely upon the report or the accuracy or completeness of any conclusions and should make their own inquiries and obtain independent advice in relation to such matters.

OTHER LIMITATIONS

EI will not be liable to update or revise the report to take into account any events or emergent circumstances or fact occurring or becoming apparent after the date of the report.