

Prepared for: Shadforths Civil

# Level 1 Earthworks Report Deebing Springs Stage 1D

11 April 2025 | PTP/14592 - 0001 - Rev0



## REPORT DETAILS

### Unique Document Identification

Item	Description
<b>Document Title</b>	Level 1 Earthworks Report
<b>Project Number</b>	PTP/14592
<b>Document ID</b>	PTP/14592 - 0001 - Rev0
<b>Client</b>	Shadforth's Civil
<b>Client Contact</b>	Carlos Pinilla

### Protest Office Details

Item	Description
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### Revision Details

Revision No.	Date	Comments
0	11/04/2025	Final Report Issued

### Document Approval

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# 1 INTRODUCTION

This report summarises the results of inspection and testing provided by Protest CMT (Protest) for the bulk earthworks as part of the Deebing Springs Stage 1D project undertaken between 09/12/2024 to 17/03/2025. The works were undertaken at the request of Shadforths Civil.

The scope of inspection and testing undertaken was in general accordance with AS3798-2007 - '*Guidelines on Earthworks for Commercial and Residential Developments*'. As part of the inspection and testing undertaken, Protest provided Level 1 supervision in accordance with Section 8.2 of AS3798-2007. Figure 1 indicates the approximate extent of Level 1 works carried out.



Figure 1: Approximate extent of level 1 works (Image extracted from MetroMap, dated 05/11/2024)

Approximately 3,500m<sup>3</sup> of fill was placed on site, Drawing No. B3771EA0\_1D-EW01-RevC - *EARTHWORKS LAYOUT PLAN* attached is the bulk earthworks cut to fill plan. The frequency of field density testing adopted for this project was based on AS3798-2007, Table 8.1 - '*Frequency of Field Density Tests*' with a minimum of one test per 500m<sup>3</sup> placed for a Type 1 - *Large Scale Operation*.

Based on the information provided, the minimum compaction requirements were specified as complying with AS3798-2007, Table 5.1 - '*Minimum Relative Compaction*'. A summary of the criteria is shown below in Table 1.

Table 1: Test Request Compaction and Moisture Content Specification

Fill Type	Dry Density Ratio	Moisture Variation
Residential General Fill	≥95%	±2% (Dry/Wet of OMC)

(Note: OMC = Optimum Moisture Content)

## 2 REGIONAL GEOLOGY

Based on the information provided by the Queensland Geotechnical Database, the site is underlain by the (Qa) Quaternary Aged formations. This formation comprises;

- Qa - Clay, silt, sand and gravel; flood-plain alluvium.

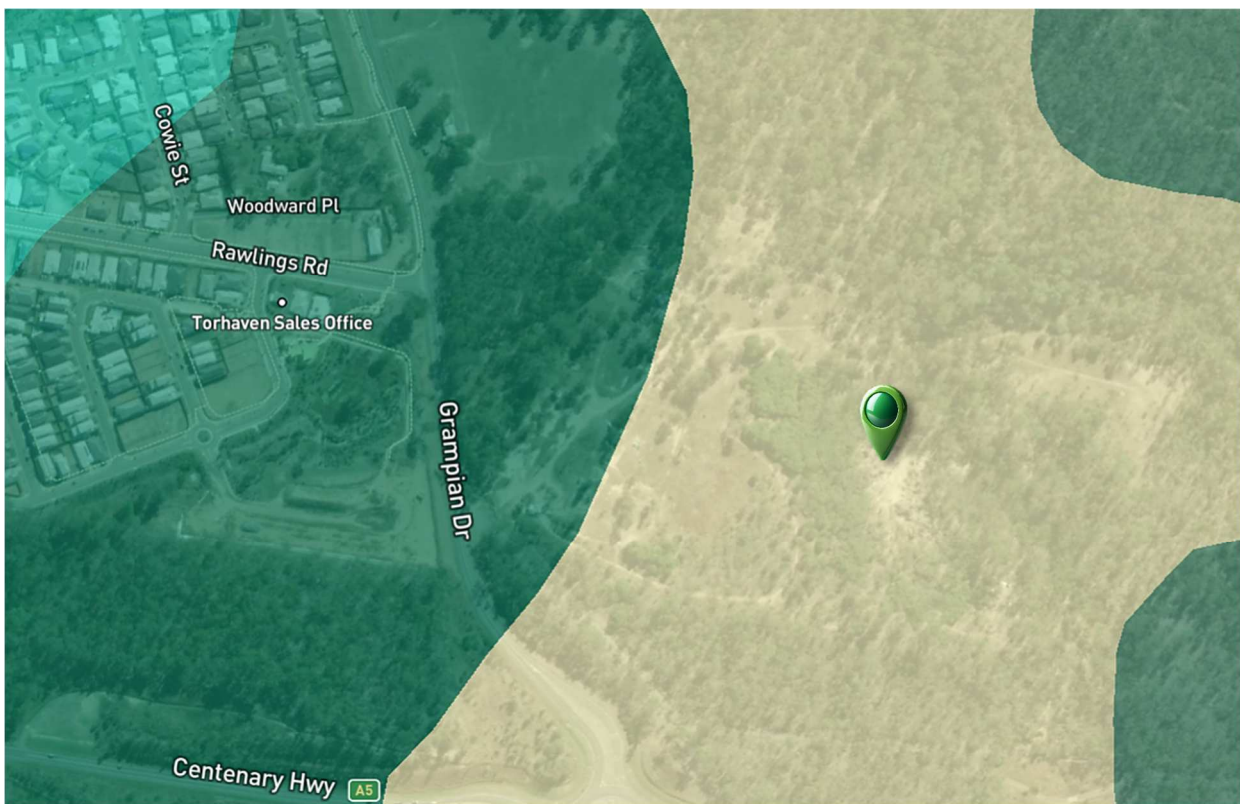


Figure 2: Geological formations map (Image extracted from qgd.org.au)



### 3 EARTHWORKS ACTIVITIES

Foundation preparation observed by Protest comprised the removal of topsoil and unsuitable materials across the cut to fill area exposing the underlying natural materials. A proof roll was performed on the natural soils using a Padfoot Roller and no noticeable movement was observed on the final pass.



Figure 3: Proof rolling operations in progress – (12/12/2024)

Following successful proof rolling, filling operations comprised the placement and compaction of material obtained from an onsite source, which were typically clay-based soils. Materials were placed onsite in uniform layers not exceeding 300mm thick, with the plant detailed below. The material used as fill was moisture conditioned at the fill source and during placement and blended to achieve suitable moisture content for compaction.

The following heavy plant were used throughout the bulk earthworks component:

- |              |                  |          |
|--------------|------------------|----------|
| » Excavator  | » Padfoot Roller | » Dozer  |
| » Body Truck | » Water Cart     | » Loader |

A total of twenty-two (22) field density ratio tests were undertaken at locations selected by Protest during the filling operations. Field density testing was carried out using a nuclear gauge and in accordance with the test method outlined in AS1289.5.8.1. The relative compaction was then determined by comparing the recorded field density with the laboratory compaction control test (standard compaction) outlined in test method AS1289.5.7.1.

A summary of the test results is presented in Table 2 with the individual reports attached and the approximate test locations are shown on the marked earthworks layout plan attached. These test locations and levels were not obtained by survey and therefore should only be considered as approximate. Figures 4 and 5 are images that were taken during the earthworks and show general filling operations.



Table 2. Summary of Density Testing

Item	Compaction	Moisture Variation
Number of tests	22	22
Mean	98.3%	0.5% (Dry of OMC)

(Note: OMC = Optimum Moisture Content)



Figure 4: Conditioning compacting operations in progress – (13/12/2024)





Figure 5: Strip filling operations in progress – (13/12/2024)

## 4 COMPLIANCE

As far as it has been able to determine, it is our opinion that the bulk earthworks placed and compacted at Deebing Springs Stage 1D by Shadforths Civil between 09/12/2024 to 17/03/2025 comply with the above-mentioned specifications and can be considered as Level 1 'controlled' fill as defined in AS3798-2007 – 'Guidelines on earthworks for commercial and residential developments'.

## 5 COMMENTS

Based on the results of the inspections and field density testing whilst Protest were on-site, it is considered that the bulk earthworks at Deebing Springs Stage 1D between 09/12/2024 to 17/03/2025 have been undertaken in general accordance with AS3798-2007 – 'Guidelines on Earthworks for Commercial and Residential Developments'. Protest believes consideration should be given to the following:

- » This report only certifies the bulk earthworks activities supervised by Protest between 09/12/2024 to 17/03/2025. Protest does not take responsibility for any other bulk earthworks activities that have occurred before or after these dates;
- » The installation of services or any activities that may cause disruption of the compacted filling;
- » The suitability of the filled land to support the proposed structures; and
- » Any variation in filling depth or extent of areas that is not noted within this report or on the individual test report sheets.

## 6 LIMITATIONS

Protest CMT ("Protest") has prepared this report for the bulk earthworks at Deebing Springs Stage 1D. This report was produced for the sole use of Shadforth's Civil. This Report should not be used or relied upon for any other purpose without Protest's prior written consent. Protest does not accept any responsibility or liability in any way whatsoever for the use or reliance of this Report by anyone other than the Client, its designers, its clients, and relevant statutory authorities or by anyone else for any purpose other than that for which it has been prepared. In the preparation of this report Protest has relied upon information provided by the client and/or their agents.

Assessments of material quality such as soaked CBR and site classifications are excluded from this commission. This report is not to be relied upon for settlement analysis and soft soils engineering advice. This is beyond the scope of this report and outside our engagement.

Our onsite attendance specifically excludes assessments of fill material quality and engineering properties that are outside the requirements of AS3798-2007, including soil or fill reactivity and soaked CBR values. We note that the fill materials used may result in unfavourable site classifications and low subgrade design strengths.

The results provided in this report are indicative of the subsurface conditions on the site only at the specific sampling or testing locations, and then only to the depths investigated along with the time the work was carried out. It is known that subsurface conditions can suddenly change due to irregular geological processes and as a result of human influences. Such changes may occur after Protest field testing has been completed.

Certain ground conditions and the materials behaviour observed or contained at the test locations may alter from those which may be encountered elsewhere on the site. Should variations in subsurface conditions be encountered, then additional advice should be sought from Protest and, if required, amendments made.

Protest cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome, or conclusion given in this report.

Footings and ground slabs for any structures constructed over natural soils or controlled fill should be designed to accommodate the characteristic ground surface movements and settlement potential. Assessments of these design parameters are beyond the scope of this Report.

The Following should also be considered:

- » This report is not a SITE CLASS REPORT as per AS2870-2011 and not a Geotechnical Site Investigation report as per AS1726-2017;
- » The shrink/swell movements which can occur in the residual silty clays due to weather related natural moisture changes by the reduction in surface evaporation subsequent to covering the site with buildings and pavements. As outlined in AS2870-2011 – '*Residential Slabs and Footings*';
- » It should be noted that there is a possibility that compaction levels may have increased during placement of subsequent layers especially when there have been fully laden earthmoving equipment frequently travel across the fill areas exerting high traffic loads; and
- » All compacted filling is subject to decompaction phenomenon.

Protest does not accept any liability or responsibility whatsoever for, or in respect of, any use or reliance upon this Report by any other party. Protest is not obliged to enter into discussions with any third party in respect of this Report.

We trust that the above information is suitable for your present requirements. Should you have any queries, please do not hesitate to contact this office.

Appendices:           A. Site Plan & Testing Locations.  
                              B. Laboratory Test Reports.

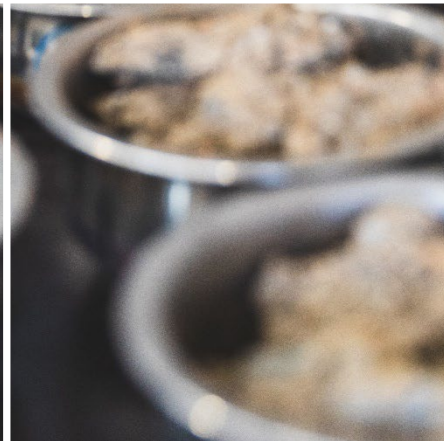


# 01



## Appendix A

Site Plan & Testing  
Locations





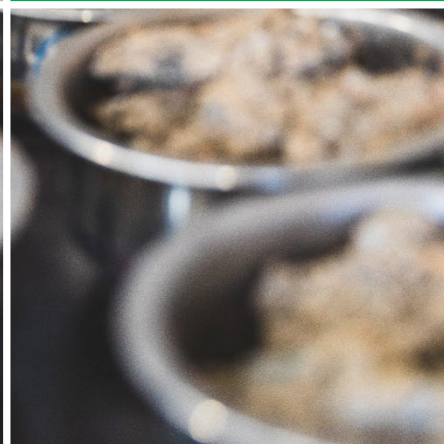






# 02



## Appendix B Laboratory Test Reports



## Soil Compaction and Density Tests Report - Compaction Control



Client :	Shadforth					Report Number :	SR/PTP/14592 - 2/1
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD					Report Date :	17/12/2024
Project Name :	Deebing Springs Stage 1D					Test Request :	-
Project Number :	PTP/14592					Page 1 of 1	
Location :	Deebing Heights						
Test Methods :	AS1289.5.8.1, AS1289.5.7.1, AS1289.2.1.1						
Sample Number :	S/281231	S/281232	S/281233	S/281234	S/281235		
Date/s Tested :	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024		
Material Source :	Onsite	Onsite	Onsite	Onsite	Onsite		
For use as :	General Fill	General Fill	General Fill	General Fill	General Fill		
Test / Layer Depths :	275 / 300	275 / 300	275 / 300	275 / 300	275 / 300		
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b		
Time :	12:45	12:50	12:55	13:00	13:05		
Lot Number :	-	-	-	-	-		
Location 1 :	-	-	-	-	-		
Location 2 :	E 476328	E 476326	E 476317	E 476305	E 476299		
Location 3 :	N 6938480	N 6938490	N 6938494	N 6938492	N 6938487		
Location 4 :	RL 41.2	RL 41.1	RL 41.6	RL 41.8	RL 42.0		
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm		
Oversize Wet :	0%	0%	0%	0%	0%		
Oversize Density - Dry (t/m³) :	-	-	-	-	-		
Assigned MDR (Yes/No) :	No	No	No	No	No		
MDR Sample Number :	S/281231	S/281232	S/281233	S/281234	S/281235		
MDR Test Date(s) :	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024	13/12/2024 - 17/12/2024		
Compaction Type :	Hilf-Std	Hilf-Std	Hilf-Std	Hilf-Std	Hilf-Std		
Soil Description :	Gravelly CLAY	Gravelly CLAY	Gravelly CLAY	Gravelly CLAY	Gravelly CLAY		
MDR Test Results							
PCWD (t/m³) :	2.08	1.98	1.93	1.94	1.99		
Moisture Variation :	-2.5%	-2.0%	0.0%	0.0%	0.0%		
ADJ PCWD (t/m³) :	-	-	-	-	-		
ADJ Moisture Variation :	-	-	-	-	-		
Moisture Test Results :							
Field Moisture Content :	20.0%	20.0%	18.0%	18.5%	18.5%		
Moisture Specification :	-	-	-	-	-		
Variation from OMC :	2.5% Wet of OMC	2.0% Wet of OMC	At OMC	0.0% Wet of OMC	0.0% Wet of OMC		
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A		
Density Test Results							
Field Wet Density (t/m³) :	2.01	1.94	1.92	1.92	1.99		
Density Specification :	95%	95%	95%	95%	95%		
Wet Density Ratio :	97.0%	98.0%	99.0%	99.5%	100.0%		
Remarks :							
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p><b>Accredited for Compliance with ISO/ IEC 17025 - Testing</b></p> <p>Protest Engineering (Darra) Accreditation Number - 2851</p> <p>Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>			<p><b>APPROVED SIGNATORY</b></p>  <p>Timothy Watson - Signatory</p>				



## Soil Compaction and Density Tests Report - Compaction Control



Client :	Shadforth			Report Number :	SR/PTP/14592 - 3/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD			Report Date :	25/02/2025	
Project Name :	Deebing Springs Stage 1D - LV1			Test Request :	-	
Project Number :	PTP/14592			Page 1 of 1		
Location :	Deebing Heights					
Test Methods :	AS1289.5.8.1, AS1289.5.7.1, AS1289.2.1.1					
Sample Number :	S/287196	S/287197	S/287198			
Date/s Tested :	13/02/2025 - 25/02/2025	13/02/2025 - 25/02/2025	13/02/2025 - 25/02/2025			
Material Source :	Onsite	Onsite	Onsite			
For use as :	General Fill	General Fill	General Fill			
Test / Layer Depths :	275 / 300	275 / 300	275 / 300			
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b			
Time :	11:47	11:55	12:01			
Lot Number :	-	-	-			
Location 1 :	House Lots 1D	House Lots 1D	House Lots 1D			
Location 2 :	E 476336	E 476343	E 476347			
Location 3 :	N 6938455	N 6938469	N 6938472			
Location 4 :	Finish Level	Finish Level	Finish Level			
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm			
Oversize Wet :	0%	0%	0%			
Oversize Density - Dry (t/m³) :	-	-	-			
Assigned MDR (Yes/No) :	No	No	No			
MDR Sample Number :	S/287196	S/287197	S/287198			
MDR Test Date(s) :	13/02/2025 - 25/02/2025	13/02/2025 - 25/02/2025	13/02/2025 - 25/02/2025			
Compaction Type :	Hilf-Std	Hilf-Std	Hilf-Std			
Soil Description :	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL			
MDR Test Results						
PCWD (t/m3) :	1.99	1.99	1.99			
Moisture Variation :	0.0%	0.0%	0.0%			
ADJ PCWD (t/m3) :	-	-	-			
ADJ Moisture Variation :	-	-	-			
Moisture Test Results :						
Field Moisture Content :	14.0%	13.0%	13.0%			
Moisture Specification :	+/-2.0% of OMC	+/-2.0% of OMC	+/-2.0% of OMC			
Variation from OMC :	0.0% Dry of OMC	0.0% Dry of OMC	0.0% Dry of OMC			
Moisture Ratio :	N/A	N/A	N/A			
Density Test Results						
Field Wet Density (t/m3) :	1.95	2.00	1.93			
Density Specification :	96%	96%	96%			
Wet Density Ratio :	98.0%	100.0%	97.0%			
Remarks :						
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p>Accredited for Compliance with ISO/ IEC 17025 - Testing</p> <p>Protest Engineering (Darra) Accreditation Number - 2851</p> <p>Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>				<p>APPROVED SIGNATORY</p> 		

## Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth			Report Number :	SR/PTP/14592 - 4/1	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD			Report Date :	26/02/2025	
Project Name :	Deebing Springs Stage 1D - LV1			Test Request :	-	
Project Number :	PTP/14592			Page 1 of 1		
Location :	Deebing Heights					
Test Methods :	AS1289.5.8.1, AS1289.5.7.1, AS1289.2.1.1					
Sample Number :	S/286687	S/286688	S/286689			
Date/s Tested :	10/02/2025 - 26/02/2025	10/02/2025 - 26/02/2025	10/02/2025 - 26/02/2025			
Material Source :	Onsite	Onsite	Onsite			
For use as :	General Fill	General Fill	General Fill			
Test / Layer Depths :	275 / 300	275 / 300	275 / 300			
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b			
Time :	07:13	07:18	07:23			
Lot Number :	-	-	-			
Location 1 :	Stage 1D (House Lots)	Stage 1D (House Lots)	Stage 1D (House Lots)			
Location 2 :	E 476329	E 476339	E 476343			
Location 3 :	N 6938470	N 6938475	N 6938464			
Location 4 :	RL 47.7	RL 47.9	RL 47.5			
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm			
Oversize Wet :	0%	4%	0%			
Oversize Density - Dry (t/m³) :	-	2.72	-			
Assigned MDR (Yes/No) :	No	No	No			
MDR Sample Number :	S/286687	S/286688	S/286689			
MDR Test Date(s) :	10/02/2025 - 26/02/2025	10/02/2025 - 26/02/2025	10/02/2025 - 26/02/2025			
Compaction Type :	Hilf-Std	Hilf-Std	Hilf-Std			
Soil Description :	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL			
MDR Test Results						
PCWD (t/m3) :	1.99	1.96	2.01			
Moisture Variation :	0.0%	2.5%	0.5%			
ADJ PCWD (t/m3) :	-	1.98	-			
ADJ Moisture Variation :	-	2.0%	-			
Moisture Test Results :						
Field Moisture Content :	11.5%	9.5%	10.5%			
Moisture Specification :	-	-	-			
Variation from OMC :	At OMC	2.0% Dry of OMC	0.5% Dry of OMC			
Moisture Ratio :	N/A	N/A	N/A			
Density Test Results						
Field Wet Density (t/m3) :	1.89	1.90	1.91			
Density Specification :	95%	95%	95%			
Wet Density Ratio :	95.0%	95.5%	95.0%			
Remarks :						
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p>Accredited for Compliance with ISO/ IEC 17025 - Testing</p> <p>Protest Engineering (Darra) Accreditation Number - 2851</p> <p>Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>				<p>APPROVED SIGNATORY</p> 		



## Soil Compaction and Density Tests Report - Compaction Control



Client :	Shadforth				Report Number :	SR/PTP/14592 - 5/2	
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD				Report Date :	18/03/2025	
Project Name :	Deebing Springs Stage 1D - LV1				Test Request :	-	
Project Number :	PTP/14592				Page 1 of 1		
Location :	Deebing Heights						
Test Methods :	AS1289.5.8.1, AS1289.5.7.1, AS1289.2.1.1						
Sample Number :	S/290185	S/290186	S/290187	S/290188			
Date/s Tested :	04/03/2025 - 18/03/2025	04/03/2025 - 18/03/2025	04/03/2025 - 18/03/2025	04/03/2025 - 18/03/2025			
Material Source :	Onsite	Onsite	Onsite	Onsite			
For use as :	General Fill	General Fill	General Fill	General Fill			
Test / Layer Depths :	275 / 300	275 / 300	275 / 300	275 / 300			
Sampling Method :	AS1289.1.2.1 - cl6.4b (Compacted) Sampling from Layers in Earthworks or Pavement - Compacted	AS1289.1.2.1 - cl6.4b (Compacted) Sampling from Layers in Earthworks or Pavement - Compacted	AS1289.1.2.1 - cl6.4b (Compacted) Sampling from Layers in Earthworks or Pavement - Compacted	AS1289.1.2.1 - cl6.4b (Compacted) Sampling from Layers in Earthworks or Pavement - Compacted			
Time :	13:27	13:31	13:35	13:40			
Lot Number :	-	-	-	-			
Location 1 :	E 476265	E 476277	E 476405	E 476383			
Location 2 :	N 6938541	N 6938531	N 6938469	N 6938484			
Location 3 :	Finish Level	Finish Level	Finish Level	Finish Level			
Location 4 :	-	-	-	-			
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm			
Oversize Wet :	0%	0%	0%	0%			
Oversize Density - Dry (t/m³) :	-	-	-	-			
Assigned MDR (Yes/No) :	No	No	No	No			
MDR Sample Number :	S/290185	S/290186	S/290187	S/290188			
MDR Test Date(s) :	04/03/2025 - 18/03/2025	04/03/2025 - 18/03/2025	04/03/2025 - 18/03/2025	04/03/2025 - 18/03/2025			
Compaction Type :	Hilf-Std	Hilf-Std	Hilf-Std	Hilf-Std			
Soil Description :	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL	Sandy CLAY with GRAVEL			
MDR Test Results							
PCWD (t/m3) :	2.13	2.16	2.17	2.17			
Moisture Variation :	2.0%	2.0%	2.5%	2.5%			
ADJ PCWD (t/m3) :	-	-	-	-			
ADJ Moisture Variation :	-	-	-	-			
Moisture Test Results							
Field Moisture Content :	14.0%	15.0%	14.5%	14.0%			
Moisture Specification :	-	-	-	-			
Variation from OMC :	2.0% Dry of OMC	2.0% Dry of OMC	2.5% Dry of OMC	2.5% Dry of OMC			
Moisture Ratio :	N/A	N/A	N/A	N/A			
Density Test Results							
Field Wet Density (t/m3) :	2.13	2.12	2.10	2.12			
Density Specification :	95%	95%	95%	95%			
Wet Density Ratio :	100.0%	98.5%	97.0%	98.0%			
Remarks :	Supplement to Test Report SR/PTP/14592 - 5/1 Reason: Incorrect dates used, BOSS update issue						
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p>Accredited for Compliance with ISO/ IEC 17025 - Testing</p> <p>Protest Engineering (Darra) Accreditation Number - 2851</p> <p>Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>				<p>APPROVED SIGNATORY</p>  <p>Timothy Watson - Signatory</p>			

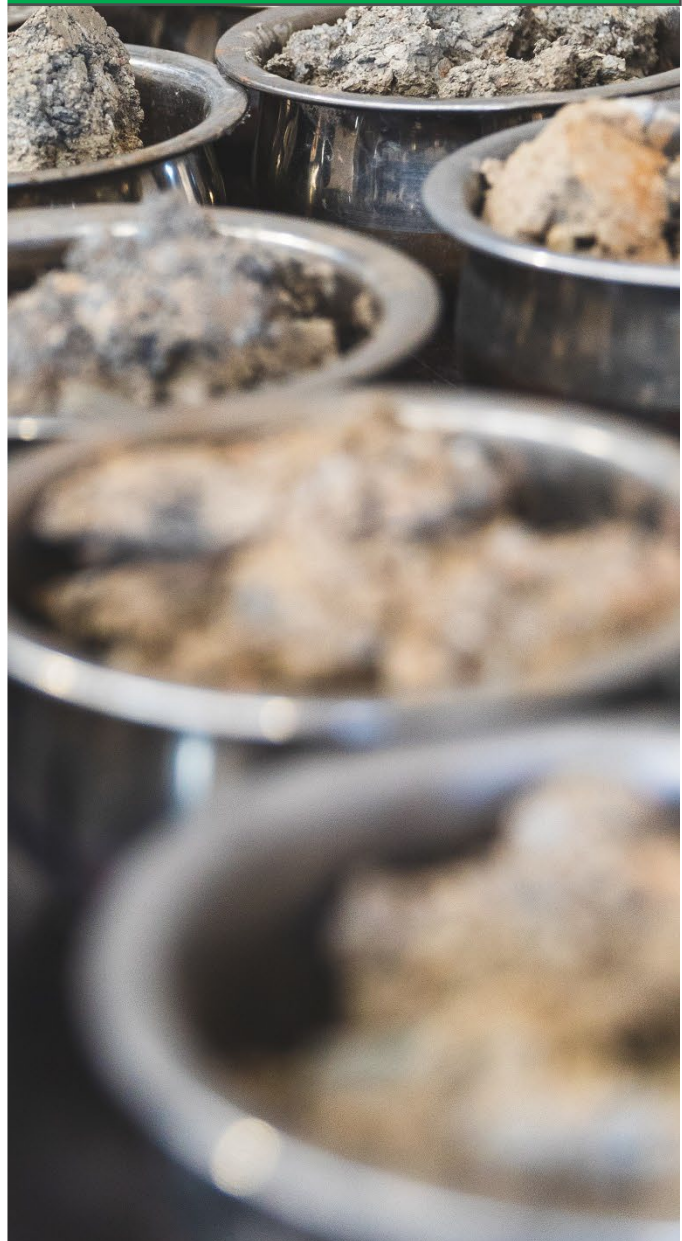
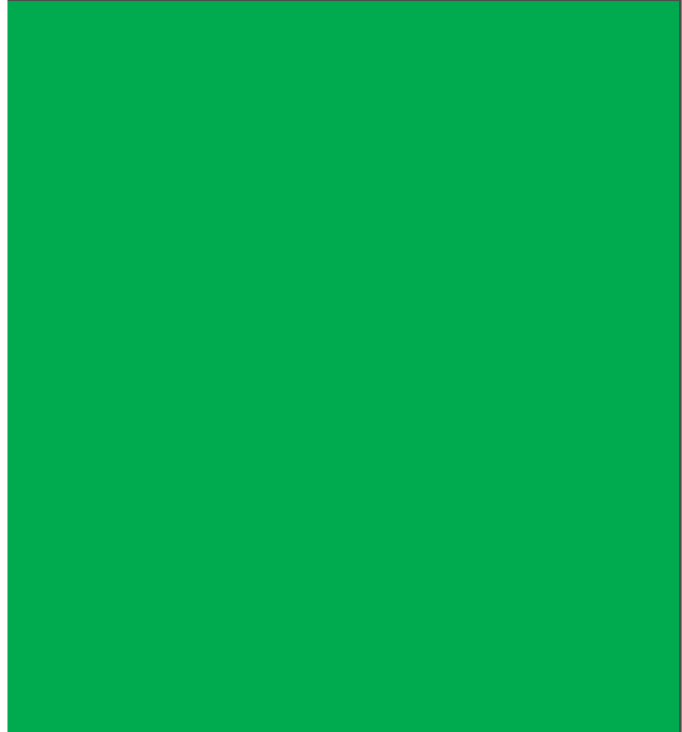
### Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth		Report Number :	SR/PTP/14592 - 6/1		
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD		Report Date :	21/03/2025		
Project Name :	Deebing Springs Stage 1D - LV1		Test Request :	-		
Project Number :	PTP/14592		Page 1 of 1			
Location :	Deebing Heights					
Test Methods :	AS1289.5.8.1, AS1289.5.7.1, AS1289.2.1.1					
Sample Number :	S/291048	S/291049				
Date/s Tested :	17/03/2025 - 21/03/2025	17/03/2025 - 21/03/2025				
Material Source :	Onsite	Onsite				
For use as :	General Fill	General Fill				
Test / Layer Depths :	125 / 150	125 / 150				
Sampling Method :	AS1289.1.2.1 - cl6.4b - (Compacted) Sampling from Layers in Earthworks or Pavement - Compacted	AS1289.1.2.1 - cl6.4b - (Compacted) Sampling from Layers in Earthworks or Pavement - Compacted				
Time :	10:22	10:37				
Lot Number :	-	-				
Location 1 :	E 476395	E 476370				
Location 2 :	N 6938459	N 6938502				
Location 3 :	Finish Level	Finish Level				
Location 4 :	-	-				
Test Fraction (mm) :	< 19mm	< 19mm				
Oversize Wet :	0%	0%				
Oversize Density - Dry (t/m³) :	-	-				
MDR Sample Number :	S/291048	S/291049				
MDR Test Date(s) :	17/03/2025 - 21/03/2025	17/03/2025 - 21/03/2025				
Compaction Type :	Hilf-Std	Hilf-Std				
Soil Description :	Sandy CLAY	Sandy CLAY				
<b>MDR Test Results</b>						
PCWD (t/m³) :	2.10	2.12				
Moisture Variation :	2.0%	4.0%				
ADJ PCWD (t/m³) :	-	-				
ADJ Moisture Variation :	-	-				
<b>Moisture Test Results :</b>						
Field Moisture Content :	12.5%	12.0%				
Moisture Specification :	-	-				
Variation from OMC :	2.0% Dry of OMC	4.0% Dry of OMC				
Moisture Ratio :	N/A	N/A				
<b>Density Test Results</b>						
Field Wet Density (t/m³) :	2.10	2.10				
Density Specification :	95%	95%				
Wet Density Ratio :	100.0%	99.0%				
Remarks :						
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p><b>Accredited for Compliance with ISO/ IEC 17025 - Testing</b> Protest Engineering (Darra) Accreditation Number - 2851 Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>			<p><b>APPROVED SIGNATORY</b></p>  <p>Timothy Watson - Signatory</p>			



## Soil Compaction and Density Tests Report - Compaction Control

Client :	Shadforth					Report Number :	SR/PTP/14592 - 1/1
Client Address :	99 Sandalwood Lane, Forest Glen, 4556, QLD					Report Date :	16/12/2024
Project Name :	Deebing Springs Stage 1D					Test Request :	LVL 1 - 5 x Gen Fill - HILF (12/12/2024)
Project Number :	PTP/14592					Page 1 of 1	
Location :	Deebing Heights						
Test Methods :	AS1289.5.8.1, AS1289.5.7.1, AS1289.2.1.1						
Sample Number :	S/280935	S/280936	S/280937	S/280938	S/280939		
Date/s Tested :	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024		
Material Source :	In situ	In situ	In situ	In situ	In situ		
For use as :	General Fill	General Fill	General Fill	General Fill	General Fill		
Test / Layer Depths :	250 / 275	250 / 275	250 / 275	250 / 275	250 / 275		
Sampling Method :	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b	AS1289.1.2.1 - cl6.4b		
Time :	11:20	11:25	11:26	11:30	11:31		
Lot Number :	-	-	-	-	-		
Location 1 :	Stage 1D (House Lots)	Stage 1D (House Lots)	Stage 1D (House Lots)	Stage 1D (House Lots)	Stage 1D (House Lots)		
Location 2 :	E 476324	E 476323	E 476315	E 476308	E 476319		
Location 3 :	N 6938496	N 6938484	N 6938486	N 6938493	N 6938504		
Location 4 :	RL 37.2	RL 37.1	RL 37.4	RL 36.4	RL 37.1		
Test Fraction (mm) :	< 19mm	< 19mm	< 19mm	< 19mm	< 19mm		
Oversize Wet :	0%	0%	0%	0%	0%		
Oversize Density - Dry (t/m³) :	-	-	-	-	-		
Assigned MDR (Yes/No) :	No	No	No	No	No		
MDR Sample Number :	S/280935	S/280936	S/280937	S/280938	S/280939		
MDR Test Date(s) :	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024	12/12/2024 - 16/12/2024		
Compaction Type :	Hilf-Std	Hilf-Std	Hilf-Std	Hilf-Std	Hilf-Std		
Soil Description :	GC - Gravelly CLAY - Dark Brown	GC - Gravelly CLAY - Dark Brown	GC - Gravelly CLAY - Dark Brown	GC - Gravelly CLAY - Dark Brown	GC - Gravelly CLAY - Dark Brown		
MDR Test Results							
PCWD (t/m³) :	2.01	2.00	1.98	2.02	2.03		
Moisture Variation :	-1.0%	1.0%	0.5%	0.0%	-2.0%		
ADJ PCWD (t/m³) :	-	-	-	-	-		
ADJ Moisture Variation :	-	-	-	-	-		
Moisture Test Results :							
Field Moisture Content :	15.0%	13.0%	14.0%	14.0%	16.0%		
Moisture Specification :	-	-	-	-	-		
Variation from OMC :	1.0% Wet of OMC	1.0% Dry of OMC	0.5% Dry of OMC	0.0% Dry of OMC	2.0% Wet of OMC		
Moisture Ratio :	N/A	N/A	N/A	N/A	N/A		
Density Test Results							
Field Wet Density (t/m³) :	2.00	1.97	1.94	2.04	2.02		
Density Specification :	95%	95%	95%	95%	95%		
Wet Density Ratio :	99.0%	99.0%	98.0%	100.5%	99.5%		
Remarks :							
 <p>Note: The results contained in this report relate only to the item/s that were tested/sampled</p> <p><b>Accredited for Compliance with ISO/ IEC 17025 - Testing</b></p> <p>Protest Engineering (Darra) Accreditation Number - 2851</p> <p>Base Laboratory Site Number - 2844 - Darra</p> <p>Base Laboratory Address - 1-2/35 Limestone Street, Darra, 4076, QLD</p>			<p><b>APPROVED SIGNATORY</b></p>  <p>Timothy Watson - Signatory</p>				



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