CQ SOIL TESTING

Pavement Investigation

Testpit Logs and DCP Test Results

SITE ADDRESS:	**Proposed Road Upgrades** Tomlins and Dodsons Road, Goovigen
Prepared for:	Banana Shire Council
Job Number:	CQ30079
Issue Date:	28/01/2026

Client & Document Information

Client:	Banana Shire Council
Project:	Proposed Road Upgrades Tomlins and Dodsons Road, Goovigen
Investigation Type:	Pavement Investigation – Testpit Logs
Job Number:	CQ3007
Date of Issue:	28/01/2026

Contact Information

CQ SOIL TESTING
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Document Control

Version	Date	Author	Design Drawings	Reviewer	Reviewer Initials
A	28/01/2026	C Burke	NA	P Munro	PM
B	29/01/2026	A Alick	NA		

Table of Contents

Tables

Appendices

1. Introduction

CQ Soil Testing has been engaged by Banana Shire Council to conduct a geotechnical assessment for the proposed upgrade to the sealed road at Tomlins and Dodsons Road, Goovigen. The aim of this study is to provide a description of existing material layers and recover samples of the proposed subgrade for laboratory testing. Investigation requirements are as follows:

- Dynamic Cone Penetrometer Testing (DCP) at all nominated Testpit locations in accordance with TMR Test Method Q114B.
- Bulk sampling of nominated geological layers encountered within each Testpit.
- Laboratory testing of nominated samples for a range of soil properties (included gradings, Atterberg Limits linear shrinkage, CBR's, moisture contents) in accordance with AS1289.

The scope of work and associated terms and conditions of our engagement were detailed in an email received by CQ Soil Testing (CQST) from Banana Shire Council on 22nd December 2025. That email included Purchase Order 21533 from Banana Shire Council.

2. Scope of Work

As detailed in our proposal, the instructed scope of work to be conducted by CQST was defined as follows:

- Project management prior to commencement of site works.

- Arrange and execute a geotechnical investigation including:

    - 7 x Testpits to a depth of 1m (or prior refusal) below surface level with sufficient representative material to be obtained and retained to allow testing of the base layer and subgrade soil.

      Laboratory tests per sample:
        - Soaked CBR single point 95% standard,
        - Partial Size Distribution, Grading and Atterberg limits, In situ Moisture content,
        - Dynamic Cone Penetrometer (DCP) to be undertaken on existing subgrade at each test location to 1.5 m depth to infer soil consistency/relative density.

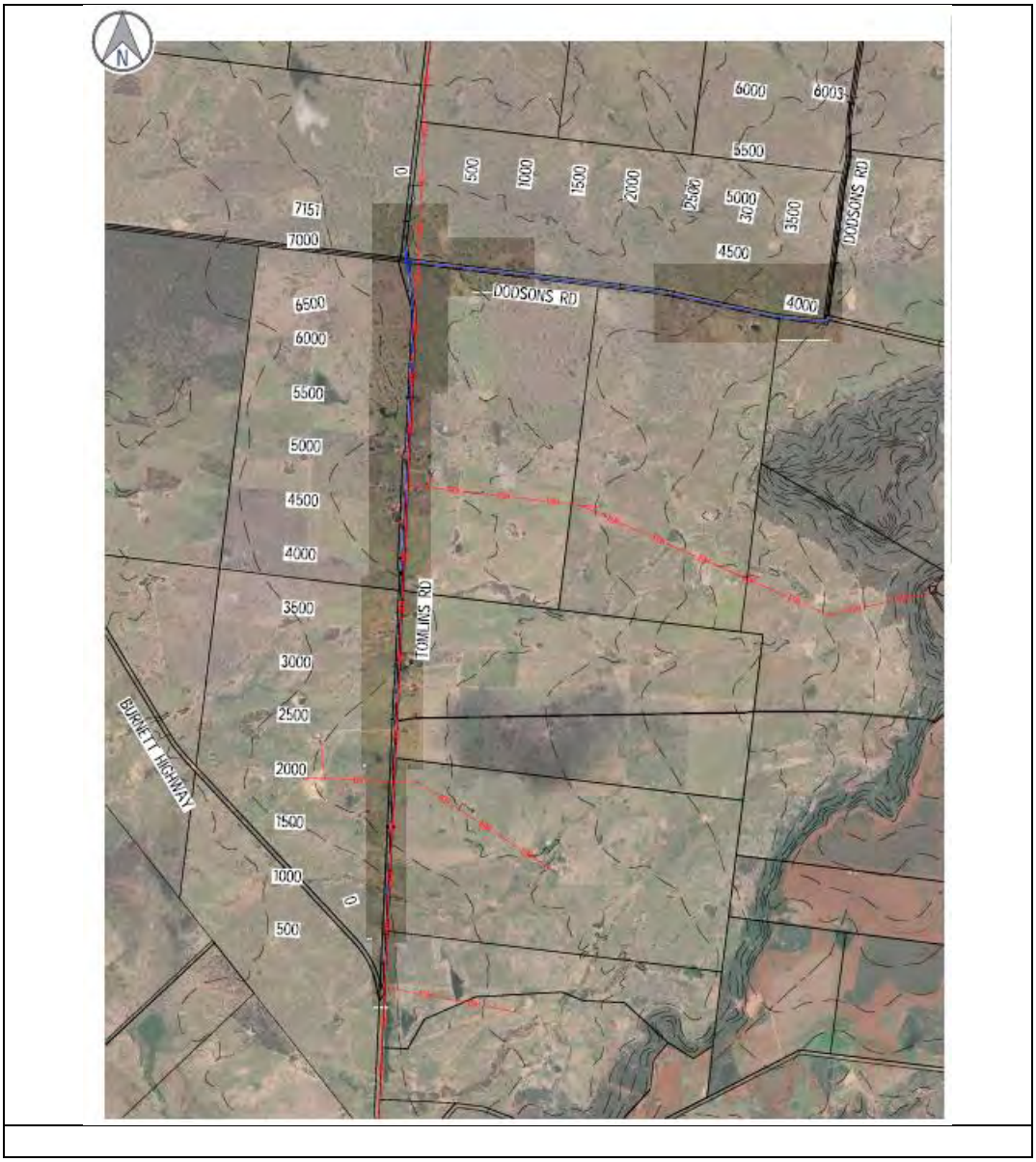
- Prepare factual geotechnical investigation report including site description, detailed bore logs, visual classification of all materials to and including subgrade/natural ground.

- Project Manager on site was Ryan Jackson of CQ Soil Testing

3. Site Description and Methodology

The investigation sites were located at the proposed upgrade to the sealed road at Tomlins and Dodsons Road, Goovigen (see Figure 1). A Locality plan was supplied by the client to identify specific testing locations.

Figure 1 – Proposed stretch of road for Pavement Investigation



4. Pavement Investigation

All fieldwork was carried out under the direction of CQ Soil Testing in general accordance with AS1726 (2017) Geotechnical Site Investigations.

The scope of fieldwork completed was as follows:

- Seven (7) Testpits were excavated with a 1.7 tonne Excacvator to recover pavement materials for subsequent laboratory testing. The Testpit was logged in accordance with AS1726. The Testpit was reinstated to match the existing conditions using local soils and 2.1 road base.
- Dynamic Cone Penetrometer (DCP) tests were carried out adjacent to each Testpit, in general accordance with AS1289.6.3.2, to depths of up to 1.5 m or prior refusal. Graphical results of the DCP testing are presented on the Testpit logs in Appendix A.

The approximate locations of the respective investigation sites referred to above are shown on the attached Site Plans (Appendix C). Test locations were measured using hand held GPS to an accuracy of 5 m and summary of Testpit locations are presented in Table 2.

Laboratory testing was carried out generally in accordance with the requirements of the current edition of AS 1289.

All testing was scheduled by CQST and carried out by CQ Soil Labs, a NATA registered Testing Authority. The extent of testing carried out to provide the geotechnical parameters required for this study and are presented in Appendix D.

Table 1 - Laboratory Test Schedule Summary

Type of Test	Test Method	Quantity
MDD + OMC	AS1289.5.1.1 + AS1289.2.1.1	7
California Bearing Ratio (CBR)	AS1289.6.1.1	14
Particle Size Distribution (PSD)	AS1289 3.6.1	7
Atterberg (LL, PI, LS)	AS1289 3.1.2 &3.2.1 & 3.3.1 & 3.4.1	7

Table 2 – Latitude and Longitude

Testpit	Latitude	Longitude
Testpit 1	-24.100479	150.358751
Testpit 2	-24.078383	150.360211
Testpit 3	-24.06778	150.36080
Testpit 4	-24.055338	150.361957
Testpit 5	-24.042597	150.362043
Testpit 6	-24.042669	150.363173
Testpit 7	-24.043900	150.401063

Table 3 – Testpit Laboratory Testing Summary

Tests ->				ATTERBERG			CBR			PSD
Testpit #	**Depth (m)**	**Description**	**Field Moisture (%)**	**Liquid Limit (%)**	**Plasticity Index (%)**	**Linear Shrinkage (%)**	**MDD (t/m³)**	**OMC (%)**	**Soaked CBR (%)**	**Fines Passed (%)**
1 Verge area	0.2 – 0.3	Silty Clay (CI)Greyish Brown – CBR 95%	-	-	-	-	1.84	13.5	0.5	-
		Silty Clay (CI)Greyish Brown - CBR 100%+ATT and PSD	14.3	38.0	21.0	12.0	1.84	13.5	3.0	79.0
2 Within existing pavement	0.4 – 0.65	Silty Clay (CI) Reddish Brown – CBR 95%	-	v	-	-	1.79	9.5	3.0	-
		Silty Clay (CI) Reddish Brown - CBR 100% + ATT and PSD	12.1	25.0	14.0	7.5	1.79	9.5	4.0	40.0
3 Within existing pavement	0.25 – 0.55	Silty Sand (SP) Greyish Brown – CBR 95%	-	-	-	-	2.05	6.5	16	-
		Silty Sand (SP) Greyish Brown - CBR 100% + ATT + PSD	3.4	Not Obtainable	Non Plastic	-	2.05	6.5	7	89.0
4 Verge area	0.2 – 0.4	Silty Clay (CL) Dark Brown – CBR 95%	-	-	-	-	1.77	12.5	1.5	-
		Silty Clay (CL) Dark Brown - CBR 100%+ ATT and PSD	13.1	34.0	19.0	11.5	1.77	12.5	1.0	64.0
5 Within existing pavement		STILL TO BE FINALISED								
		STILL TO BE FINALISED								
6 Within existing pavement	0.0 – 0.3	Silty Clay (CL/CI) Greyish Brown – CBR 95%	-	-	-	-	1.74	8.5	0.5	-
		Silty Clay (CL/CI) Greyish Brown - CBR 100% +ATT and PSD	17.4	37.0	20.0	12.0	1.74	8.5	1.0	69.0
7 Within existing pavement	0.1 – 0.3	Clay (CH) Black – CBR 95%	-	-	-	-	1.56	15.0	1.0	-
		Clay (CH) Black - CBR 100%	16.1	56.0	29.0	17.0	1.56	15.0	1.0	84.0

5. Closure

The findings contained within this report are the result of limited discrete investigations conducted in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the site. Under no circumstances can it be considered that these findings represent the actual state of the ground conditions away from our investigation locations.

This report has been prepared for use by Banana Shire Council in relation to the proposed roadworks at Tomlins and Dodsons Road, Goovigen in accordance with generally accepted consulting practice. No other warranty, expressed or implied, is made as to the professional advice included in this report. Use of this report by parties other than Banana Shire Council and their respective consultants is forbidden.

Yours faithfully

SCOTT WALTON
Owner/Laboratory Manager

APPENDIX A - Borehole Logs

CQ Soil Testing
32 Alexandra Street, North Rockhampton QLD 4701
Phone: (07) 4936 1163

Geotechnical Log - Testpit

TP1

Latitude	: -24.10048	Location	: Tomlins Rd, Goovigen QLD 4702, Australia	Job Number	: CQ30145
Longitude	: 150.35875	Logged By	: Ryan Jackson	Client	: Banana Shire Council
Total Depth	: 0.7 m	Date	: 23/01/2026	Project	: Pavement Investigation

Drilling Method	Water	DCP Blows (0 5 10 15 20)	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Samples	Testing: PP	Testing: SPT
Excavator		4, 3	0.15	Controlled Pavement Fill		GM	Silty Sandy GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, wet, loose, **Cobbles Present.			
		5, 4, 7, 10, 9		Natural		CI	Natural Silty CLAY CI: medium plasticity, trace fine to coarse sized gravel, greyish brown, wet to moist to dry with depth, soft.	Disturbed Sample		
		12, 12					TP1 Refusal at 0.7 m (Hard Ground Refusal with 1.7t Excavator)			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
AD/T	Solid flight auger:TC-Bit
HFA	Hollow flight auger
WB	Washbore drilling
RR	Rock roller

PENETRATION

VE	Very Easy(No Resistance)
E	Easy
F	Firm
H	Hard
VH	Very Hard(Refusal)

WATER

- Water Level on Date
- Water inflow
- Water outflow

FIELD TESTS

SPT	- Standard Penetration Test
PP	- Hand/Pocket Penetrometer
DCP	- Dynamic Cone Penetrometer
PSP	- Perth Sand Penetrometer
MC	- Moisture Content
PBT	- Plate Bearing Test
IMP	- Borehole Impression Test
PID	- Photo Ionisation Detector
VS	- Vane Shear; P=Peak, R=residual (unconnected kPa)

SAMPLES

B	- Bulk disturbed sample
D	- Disturbed sample
ES	- Environmental sample
U	- Thin wall tube "undisturbed"

MOISTURE

D	- Dry
M	- Moist
W	- Wet
PL	- plastic limit
LL	- liquid limit
W	- Moisture content

SOIL CONSISTENCY

VS	- Very soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very stiff
H	- Hard

RELATIVE DENSITY

VL	- Very loose
L	- Loose
MD	- Medium dense
D	- Dense
VD	- Very dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CQ Soil Testing

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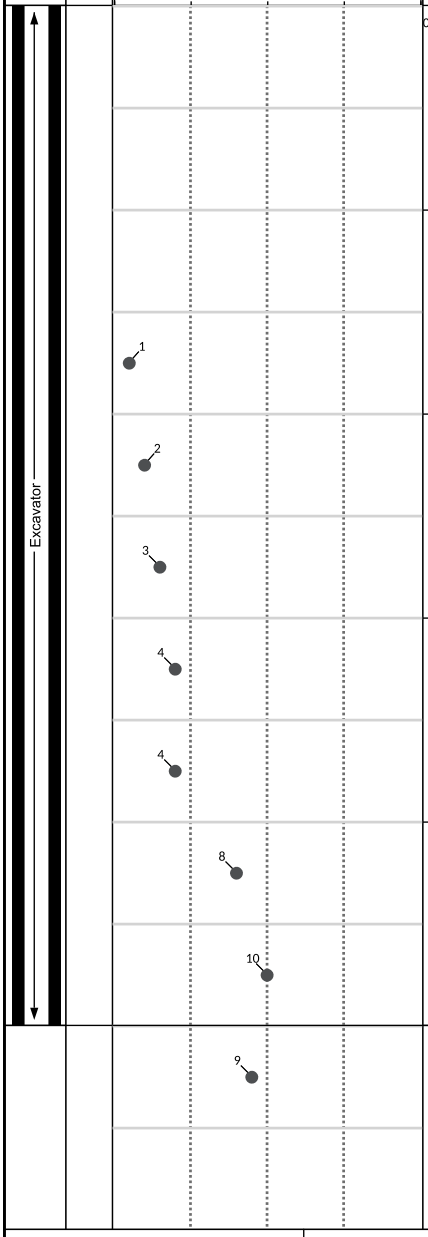
Geotechnical Log - Testpit

TP2

Latitude	: -24.07838	Location	: Tomlins Rd, Goovigen QLD 4702, Australia	Job Number	: CQ30145
Longitude	: 150.36021	Logged By	: Ryan Jackson	Client	: Banana Shire Council
Total Depth	: 1 m	Date	: 23/01/2026	Project	: Pavement Investigation



Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Samples	Testing PP	Testing SPT
0.024	Bitumen		ASP	Bitumen ASPHALT: black.			
0.1	Controlled Pavement Fill		GM	Sandy Silty GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, wet, loose, **Cobbles Present.			
	Natural		CL	Natural Silty CLAY CL: low plasticity, with fine to medium grained sand, reddish brown to greyish brown with depth, moist, stiff to very stiff with depth.	Disturbed Sample		
				TP2 Terminated at 1 m			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
AD/T	Solid flight auger:TC-Bit
HFA	Hollow flight auger
WB	Washbore drilling
RR	Rock roller

PENETRATION

VE	Very Easy(No Resistance)
E	Easy
F	Firm
H	Hard
VH	Very Hard(Refusal)

WATER

- Water Level on Date
- Water inflow
- Water outflow

FIELD TESTS

SPT	- Standard Penetration Test
PP	- Hand/Pocket Penetrometer
DCP	- Dynamic Cone Penetrometer
PSP	- Perth Sand Penetrometer
MC	- Moisture Content
PBT	- Plate Bearing Test
IMP	- Borehole Impression Test
PID	- Photo Ionisation Detector
VS	- Vane Shear; P=Peak, R=residual (unconnected kPa)

SAMPLES

B	- Bulk disturbed sample
D	- Disturbed sample
ES	- Environmental sample
U	- Thin wall tube "undisturbed"

MOISTURE

D	- Dry
M	- Moist
W	- Wet
PL	- plastic limit
LL	- liquid limit
W	- Moisture content

SOIL CONSISTENCY

VS	- Very soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very stiff
H	- Hard

RELATIVE DENSITY

VL	- Very loose
L	- Loose
MD	- Medium dense
D	- Dense
VD	- Very dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CQ Soil Testing

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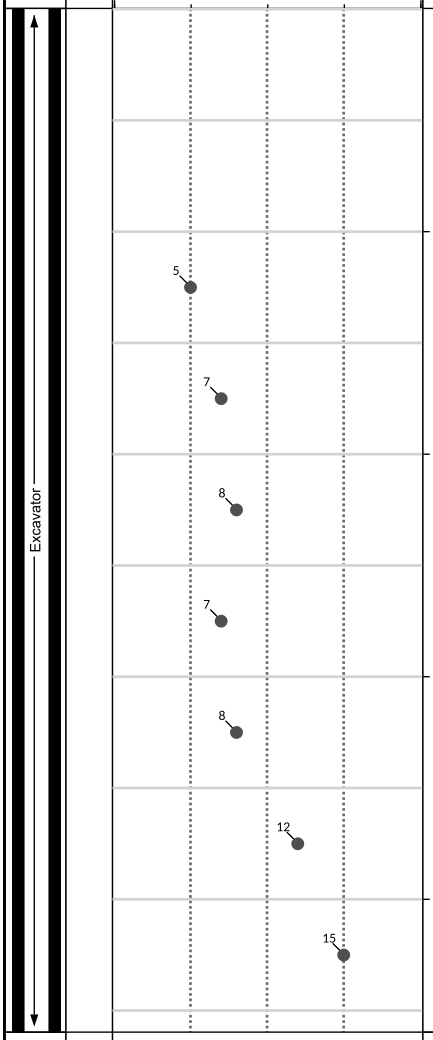
32 Alexandra Street, North Rockhampton QLD 4701
Phone: (07) 4936 1163

Geotechnical Log - Testpit

TP3

Latitude	: -24.06778	Location	: Tomlins Rd, Goovigen QLD 4702, Australia	Job Number	: CQ30145
Longitude	: 150.36080	Logged By	: Ryan Jackson	Client	: Banana Shire Council
Total Depth	: 0.92 m	Date	: 23/01/2026	Project	: Pavement Investigation



Depth (m)	Soil Origin	Classification Code	Material Description	Samples	Testing PP	Testing SPT
0.03	Bitumen	ASP	Bitumen ASPHALT: black.			
	Controlled Pavement Fill	GM	Silty Sandy GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, wet, loose, **Cobbles Present.			
0.23	Natural	SP	Natural Silty SAND SP: poorly graded, fine to coarse grained, reddish brown to greyish brown with depth, moist, very dense, ** Cobbles present.	Disturbed Sample		
0.55	Natural	CH	Natural Silty CLAY CH: high plasticity, with fine to medium grained sand, greyish brown/yellowish brown mottled, moist, very stiff to hard with depth.			
			TP3 Refusal at 0.92 m (Hard Ground Refusal 1.7t Excavator)			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
AD/T	Solid flight auger:TC-Bit
HFA	Hollow flight auger
WB	Washbore drilling
RR	Rock roller

PENETRATION

VE	Very Easy(No Resistance)
E	Easy
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WATER

- Water Level on Date
- Water inflow
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FIELD TESTS

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PBT	- Plate Bearing Test
IMP	- Borehole Impression Test
PID	- Photo Ionisation Detector
VS	- Vane Shear; P=Peak, R=residual (unconnected kPa)

SAMPLES

B	- Bulk disturbed sample
D	- Disturbed sample
ES	- Environmental sample
U	- Thin wall tube "undisturbed"

MOISTURE

D	- Dry
M	- Moist
W	- Wet
PL	- plastic limit
LL	- liquid limit
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CQ Soil Testing

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Geotechnical Log - Testpit

TP4

Latitude	: -24.05538	**Location**	: Tomlins Rd, Goovigen QLD 4702, Australia	**Job Number**	: CQ30145
Longitude	: 150.36196	**Logged By**	: Ryan Jackson	**Client**	: Banana Shire Council
Total Depth	: 1 m	**Date**	: 23/01/2026	**Project**	: Pavement Investigation

Drilling Method	Water	DCP Blows (0 5 10 15 20)	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Samples	Testing PP	Testing SPT
Excavator		2, 3, 3, 4, 6, 8, 10, 10, 11	0.1	Controlled Pavement Fill		GM	Silty Sandy GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, wet, loose, **Cobbles Present.			
				Natural		CL	Natural Silty CLAY CL: low plasticity, with fine to medium grained sand, dark brown to brown with depth, moist, stiff to very stiff with depth.	Disturbed Sample		
							TP4 Terminated at 1 m			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
AD/T	Solid flight auger:TC-Bit
HFA	Hollow flight auger
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RR	Rock roller

PENETRATION

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CQ Soil Testing

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Phone: (07) 4936 1163

Geotechnical Log - Testpit

TP5

Latitude	: -24.04260	**Location**	: Tomlins Rd, Goovigen QLD 4702, Australia	**Job Number**	: CQ30145
Longitude	: 150.36204	**Logged By**	: Ryan Jackson	**Client**	: Banana Shire Council
Total Depth	: 1 m	**Date**	: 23/01/2026	**Project**	: Pavement Investigation

Drilling Method	Water	DCP Blows (0 5 10 15 20)	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Samples	Testing PP	Testing SPT
Excavator		2	0.025	Bitumen		ASP	Bitumen ASPHALT: black.			
				Controlled Pavement Fill		GM	Silty Sandy GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, wet, loose, **Cobbles Present.			
		3	0.2	Natural		CI	Natural Silty CLAY CI: medium plasticity, with fine to medium grained sand, greyish brown to brown with depth, moist, stiff to very stiff with depth.	Disturbed Sample		
		3								
		4								
		4								
		5								
		6								
		7								
		9								
		9					TP5 Terminated at 1 m			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
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CQ Soil Testing

CQ Soil Testing
32 Alexandra Street, North Rockhampton QLD 4701
Phone: (07) 4936 1163

Geotechnical Log - Testpit

TP6

Latitude	: -24.04267	**Location**	: Tomlins Rd, Goovigen QLD 4702, Australia	**Job Number**	: CQ30145
Longitude	: 150.36317	**Logged By**	: Ryan Jackson	**Client**	: Banana Shire Council
Total Depth	: 0.63 m	**Date**	: 23/01/2026	**Project**	: Pavement Investigation

Drilling Method	Water	DCP Blows (0 5 10 15 20)	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Samples	Testing PP	Testing SPT
Excavator		9	0.1	Controlled Pavement Fill		GM	Silty Sandy GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, dry, dense, **Cobbles Present.			
		15		Natural		CL-CI	Natural Silty CLAY low to medium plasticity, trace fine to coarse sized gravel, light brown, moist to dry with depth, very stiff.	Disturbed Sample		
							TP6 Refusal at 0.63 m (Hard Ground Refusal with 1.7t Excavator)			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
AD/T	Solid flight auger:TC-Bit
HFA	Hollow flight auger
WB	Washbore drilling
RR	Rock roller

PENETRATION

VE	Very Easy(No Resistance)
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WATER

- Water Level on Date
- Water inflow
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FIELD TESTS

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Refer to explanatory notes for details of abbreviations and basis of descriptions

CQ Soil Testing

CQ Soil Testing

32 Alexandra Street, North Rockhampton QLD 4701
Phone: (07) 4936 1163

Geotechnical Log - Testpit

TP7

Latitude	: -24.04390	**Location**	: Tomlins Rd, Goovigen QLD 4702, Australia	**Job Number**	: CQ30145
Longitude	: 150.40106	**Logged By**	: Ryan Jackson	**Client**	: Banana Shire Council
Total Depth	: 0.45 m	**Date**	: 23/01/2026	**Project**	: Pavement Investigation

Drilling Method	Water	DCP Blows (0 5 10 15 20)	Depth (m)	Soil Origin	Graphic Log	Classification Code	Material Description	Samples	Testing PP	Testing SPT
Excavator				Controlled Pavement Fill		GM	Silty Sandy GRAVEL GM: fine to coarse sized, fine to coarse grained sand, reddish brown, wet, loose, **Cobbles Present.			
			0.1	Natural		CH	Natural Silty CLAY CH: high plasticity, trace fine to coarse sized gravel, black to dark brown with depth, dry, very stiff to hard with depth.	Disturbed Sample		
		9								
		15								
							TP7 Refusal at 0.45 m (Hard Ground Refusal with 1.7t Excavator)			

METHOD

EX	Excavator bucket
R	Ripper
HA	Hand auger
PT	Push tube
SON	Sonic drilling
AH	Air hammer
PS	Percussion sampler
AS	Short spiral auger
AD/V	Solid flight auger:V-Bit
AD/T	Solid flight auger:TC-Bit
HFA	Hollow flight auger
WB	Washbore drilling
RR	Rock roller

PENETRATION

VE	Very Easy(No Resistance)
E	Easy
F	Firm
H	Hard
VH	Very Hard(Refusal)

WATER

- Water Level on Date
- Water inflow
- Water outflow

FIELD TESTS

SPT	- Standard Penetration Test
PP	- Hand/Pocket Penetrometer
DCP	- Dynamic Cone Penetrometer
PSP	- Perth Sand Penetrometer
MC	- Moisture Content
PBT	- Plate Bearing Test
IMP	- Borehole Impression Test
PID	- Photo Ionisation Detector
VS	- Vane Shear; P=Peak, R=residual (unconnected kPa)

SAMPLES

B	- Bulk disturbed sample
D	- Disturbed sample
ES	- Environmental sample
U	- Thin wall tube "undisturbed"

MOISTURE

D	- Dry
M	- Moist
W	- Wet
PL	- plastic limit
LL	- liquid limit
W	- Moisture content

SOIL CONSISTENCY

VS	- Very soft
S	- Soft
F	- Firm
St	- Stiff
VSt	- Very stiff
H	- Hard

RELATIVE DENSITY

VL	- Very loose
L	- Loose
MD	- Medium dense
D	- Dense
VD	- Very dense

Refer to explanatory notes for details of abbreviations and basis of descriptions

CQ Soil Testing

APPENDIX B - Site Photographs

TP1 - Profile

TP1 Profile

Site Location - TP1

CQ SOIL TESTING
(07) 4936 1163
32 Alexandra Street, North Rockhampton QLD 4701
info@cqsoiltesting.com.au

Photo description	Site Photographs - Location and Soil Profile TP1		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP1	**TP Depth**	

Soil Profile - TP2

NO IMAGE
Intentionally
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TP2

Site Location - TP2

CQ SOIL TESTING
(07) 4936 1163
32 Alexandra Street, North Rockhampton QLD 4701
info@cqsoiltesting.com.au

Photo description	Site Photographs - TP2		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP2	**TP Depth**	

Soil Profile - TP3

Soil Profile - TP3

Site Location - TP3

CQ SOIL TESTING

(07) 4936 1163

32 Alexandra Street, North Rockhampton QLD 4701

info@cqsoiltesting.com.au

Photo description	Site Photographs - TP3		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP3	**TP Depth**	

Soil Profile - TP4

Soil Profile - TP4

Site Location - TP4

CQ SOIL TESTING
(07) 4936 1163
32 Alexandra Street, North Rockhampton QLD 4701
info@cqsoiltesting.com.au

Photo description	Site Photographs - TP4		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP4	**TP Depth**	

Soil Profile - TP5

NO IMAGE
Intentionally
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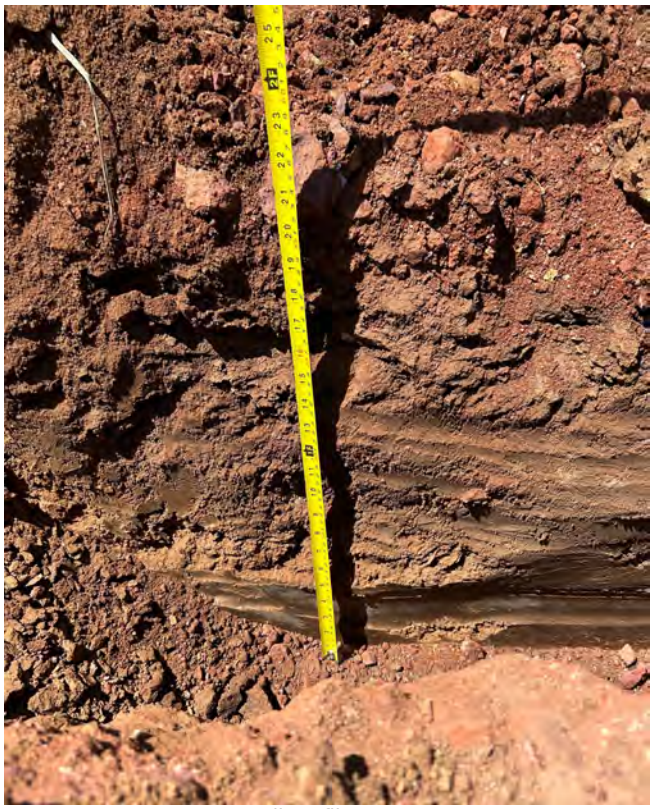
TP5

Site Location - TP5

CQ SOIL TESTING
(07) 4936 1163
32 Alexandra Street, North Rockhampton QLD 4701
info@cqsoiltesting.com.au

Photo description	Site Photographs - TP5		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP5	**TP Depth**	

Soil Profile - TP6



Soil Profile - TP6

Site Location - TP6

CQ SOIL TESTING

(07) 4936 1163

32 Alexandra Street, North Rockhampton QLD 4701

info@cqsoiltesting.com.au

Photo description	Site Photographs - TP6		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP6	**TP Depth**	

Soil Profile - TP7

Soil Profile - TP7

Site Location - TP7

CQ SOIL TESTING

(07) 4936 1163

32 Alexandra Street, North Rockhampton QLD 4701

info@cqsoiltesting.com.au

Photo description	Site Photographs - TP7		
Client	Banana Shire Council		
Location	Tomlins Rd, Goovigen QLD 4702, Australia		
Project name	Pavement Investigation		
Project No	CQ30145	**Scale**	Not to Scale
TP No	TP7	**TP Depth**	

APPENDIX C - Site Plan

Tomlins Rd, Goovigen QLD 4702, Australia

CQ SOIL TESTING	**CLIENT:**	Banana Shire Council	**PROJECT:**	Pavement Investigation
	DRAWN DATE:	28/01/2026	**PROJECT No.:**	CQ30145
	CHECKED DATE:	28/01/2026	**SCALE:**	1: 65,865

APPENDIX D - Laboratory Test Results

Material Test Report

Report Number:	**P24104-449**
Issue Number:	4 - *This version supersedes all previous issues*
Reissue Reason:	*Client Reference Added to Report*
Date Issued:	28/01/2026
Client:	CQ Soil Testing Pty Ltd
Contact:	Alison Alick
Project Number:	P24104
Project Name:	CQST Labs
Project Location:	Delivered
Contractor:	CQ Soil Testing
Client Reference:	CQ30145 Tomlins & Dobsons Road
Work Request:	829
Sample Number:	S829A
Date Sampled:	16/01/2026
Dates Tested:	16/01/2026 - 23/01/2026
Sampling Method:	Sampled by Client
	The results apply to the sample as received
Preparation Method:	AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection:	Selected by Client
Sample Location:	**TP1, Depth: 0.2-0.3m**
Material:	Silty CLAY(CI)Greyish Brown
Material Source:	Insitu

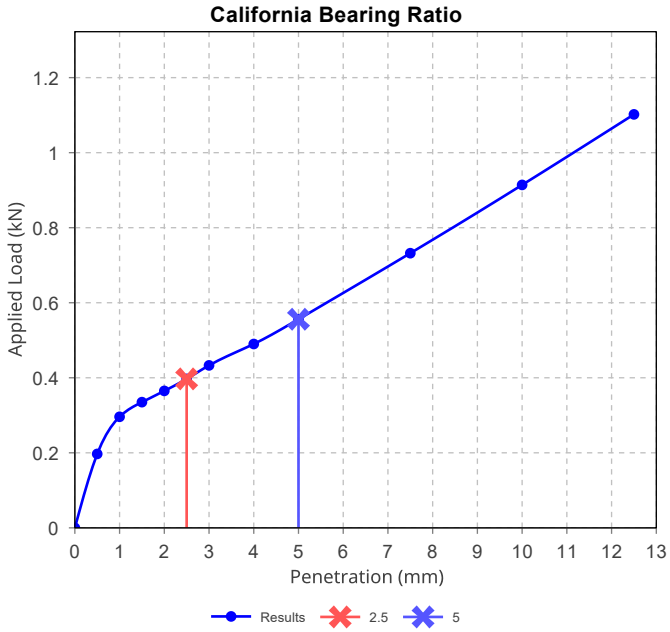
CQ Soil Laboratory
32 Alexandra Street Park Avenue QLD 4701
Phone: 07 4839 7345
Email: ricky@cqsl.com.au

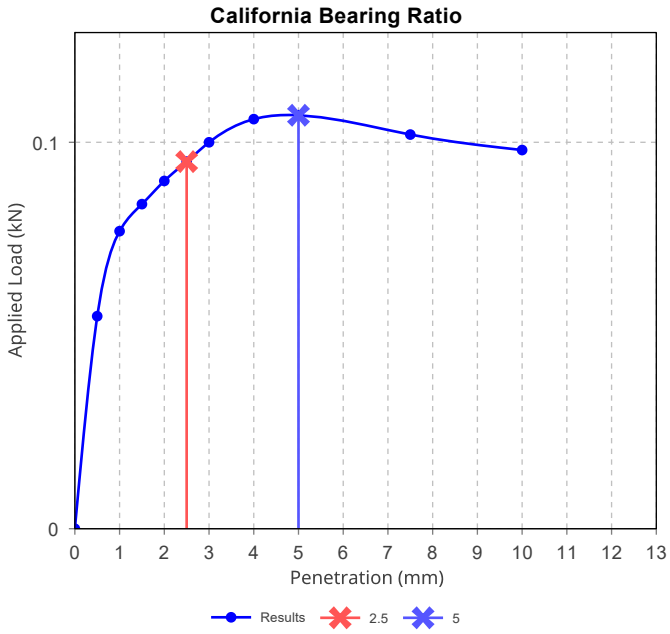
Accredited for compliance with ISO/IEC 17025 - Testing

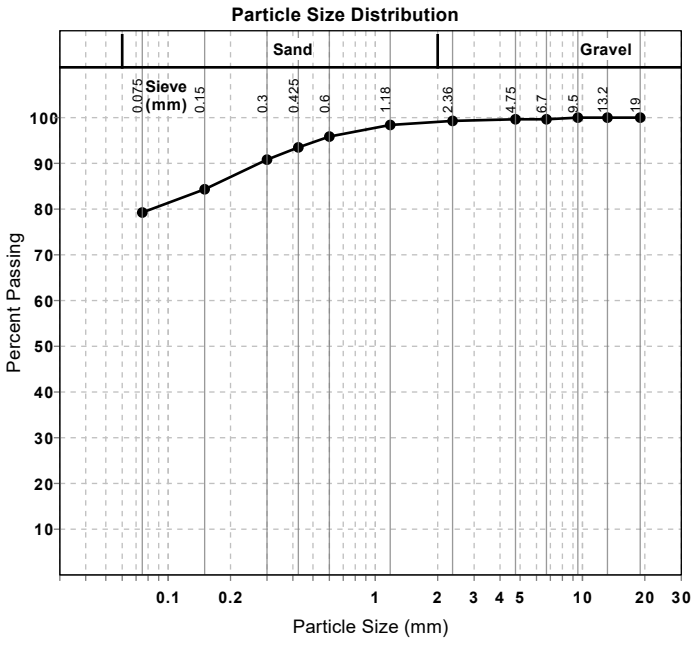
Approved Signatory: Ricky Sinnott
Laboratory Manager

Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**3.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.84		
Optimum Moisture Content (%)	13.5		
Laboratory Density Ratio (%)	100.0		
Laboratory Moisture Ratio (%)	99.0		
Moisture Content at Placement (%)	13.3		
Moisture Content Top 30mm (%)	16.3		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
100%			







Material Test Report

Report Number: **P24104-449**
Issue Number: 4 - *This version supersedes all previous issues*
Reissue Reason: *Client Reference Added to Report*
Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Sample Number: S829A
Date Sampled: 16/01/2026
Dates Tested: 16/01/2026 - 23/01/2026
Sampling Method: Sampled by Client
The results apply to the sample as received
Preparation Method: AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection: Selected by Client
Sample Location: **TP1, Depth: 0.2-0.3m**
Material: Silty CLAY(CI)Greyish Brown
Material Source: Insitu

CQ Soil Laboratory
32 Alexandra Street Park Avenue QLD 4701
Phone: 07 4839 7345
Email: ricky@cqsl.com.au
Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Ricky Sinnott
Laboratory Manager
Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**0.5**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual`		
Maximum Dry Density (t/m^3)	1.84		
Optimum Moisture Content (%)	13.5		
Laboratory Density Ratio (%)	94.5		
Laboratory Moisture Ratio (%)	103.0		
Moisture Content at Placement (%)	13.8		
Moisture Content Top 30mm (%)	32.0		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
95%			

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	38		
Plastic Limit (%)	17		
Plasticity Index (%)	**21**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1 / AS 1289.3.1.2 / AS 1289.3.9.1 / AS 1289.3.9.2		
Linear Shrinkage (%)	**12.0**		
Cracking Crumbling Curling	None		

Particle Size Distribution (AS1289 3.6.1)			
Sieve	Passed %	Passing Limits	
19 mm	**100**		
13.2 mm	**100**		
9.5 mm	**100**		
6.7 mm	**100**		
4.75 mm	**100**		
2.36 mm	**99**		
1.18 mm	**98**		
0.6 mm	**96**		
0.425 mm	**93**		
0.3 mm	**91**		
0.15 mm	**84**		
0.075 mm	**79**		

Material Test Report

Report Number:	**P24104-449**
Issue Number:	4 - *This version supersedes all previous issues*
Reissue Reason:	*Client Reference Added to Report*
Date Issued:	28/01/2026
Client:	CQ Soil Testing Pty Ltd
Contact:	Alison Alick
Project Number:	P24104
Project Name:	CQST Labs
Project Location:	Delivered
Contractor:	CQ Soil Testing
Client Reference:	CQ30145 Tomlins & Dobsons Road
Work Request:	829
Sample Number:	S829C
Date Sampled:	16/01/2026
Dates Tested:	16/01/2026 - 22/01/2026
Sampling Method:	Sampled by Client
	The results apply to the sample as received
Preparation Method:	AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection:	Selected by Client
Sample Location:	**TP2, Depth: 0.4-0.65m**
Material:	Silty CLAY(CL)Reddish Brown
Material Source:	Insitu

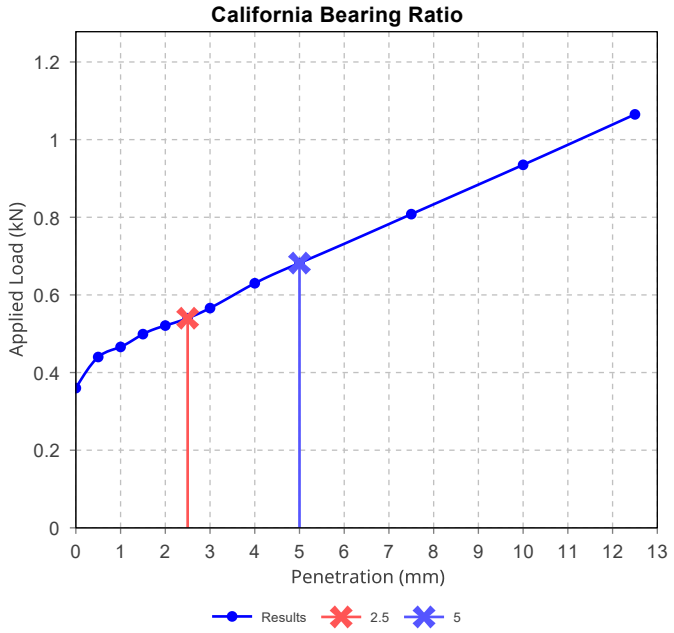
CQ Soil Laboratory
32 Alexandra Street Park Avenue QLD 4701
Phone: 07 4839 7345
Email: ricky@cqsl.com.au

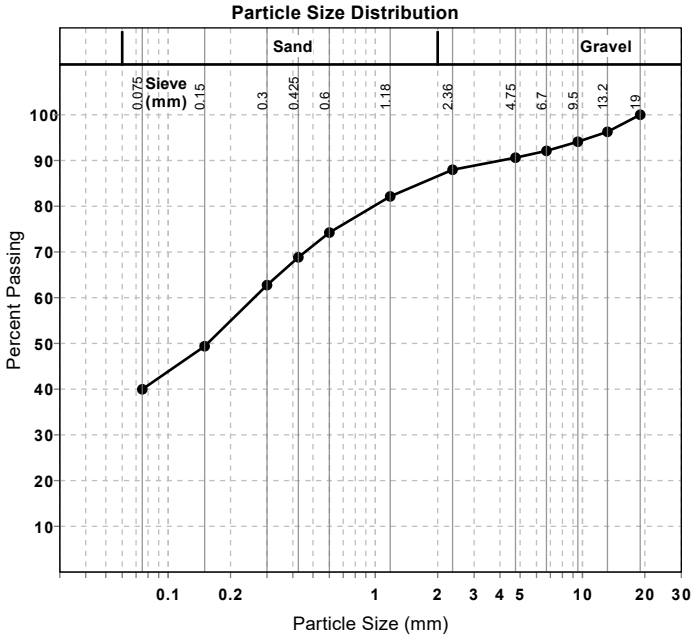
Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Ricky Sinnott
Laboratory Manager

Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**4.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	visual		
Maximum Dry Density (t/m^3)	1.79		
Optimum Moisture Content (%)	9.5		
Laboratory Density Ratio (%)	100.0		
Laboratory Moisture Ratio (%)	99.5		
Moisture Content at Placement (%)	9.7		
Moisture Content Top 30mm (%)	22.7		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
100%			





Material Test Report

Report Number: **P24104-449**
Issue Number: 4 - *This version supersedes all previous issues*
Reissue Reason: *Client Reference Added to Report*
Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Sample Number: S829C
Date Sampled: 16/01/2026
Dates Tested: 16/01/2026 - 22/01/2026
Sampling Method: Sampled by Client
The results apply to the sample as received
Preparation Method: AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection: Selected by Client
Sample Location: **TP2, Depth: 0.4-0.65m**
Material: Silty CLAY(CL)Reddish Brown
Material Source: Insitu

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Email: ricky@cqsl.com.au
Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Ricky Sinnott
Laboratory Manager
Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**3.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.79		
Optimum Moisture Content (%)	9.5		
Laboratory Density Ratio (%)	95.0		
Laboratory Moisture Ratio (%)	100.5		
Moisture Content at Placement (%)	9.7		
Moisture Content Top 30mm (%)	20.4		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
95%			

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	25		
Plastic Limit (%)	11		
Plasticity Index (%)	**14**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1		
Linear Shrinkage (%)	**7.5**		
Cracking Crumbling Curling	Cracking & Crumbling		

Particle Size Distribution (AS1289 3.6.1)			
Sieve	Passed %	Passing Limits	
19 mm	**100**		
13.2 mm	**96**		
9.5 mm	**94**		
6.7 mm	**92**		
4.75 mm	**91**		
2.36 mm	**88**		
1.18 mm	**82**		
0.6 mm	**74**		
0.425 mm	**69**		
0.3 mm	**63**		
0.15 mm	**49**		
0.075 mm	**40**		

Material Test Report

Report Number:	**P24104-449**
Issue Number:	4 - *This version supersedes all previous issues*
Reissue Reason:	*Client Reference Added to Report*
Date Issued:	28/01/2026
Client:	CQ Soil Testing Pty Ltd
Contact:	Alison Alick
Project Number:	P24104
Project Name:	CQST Labs
Project Location:	Delivered
Contractor:	CQ Soil Testing
Client Reference:	CQ30145 Tomlins & Dobsons Road
Work Request:	829
Sample Number:	S829E
Date Sampled:	16/01/2026
Dates Tested:	16/01/2026 - 28/01/2026
Sampling Method:	Sampled by Client
	The results apply to the sample as received
Preparation Method:	AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection:	Selected by Client
Sample Location:	**TP3, Depth: 0.25-0.55m**
Material:	Silty SAND(SP)Greyish Brown
Material Source:	Insitu

CQ Soil Laboratory
32 Alexandra Street Park Avenue QLD 4701
Phone: 07 4839 7345
Email: ricky@cqsl.com.au

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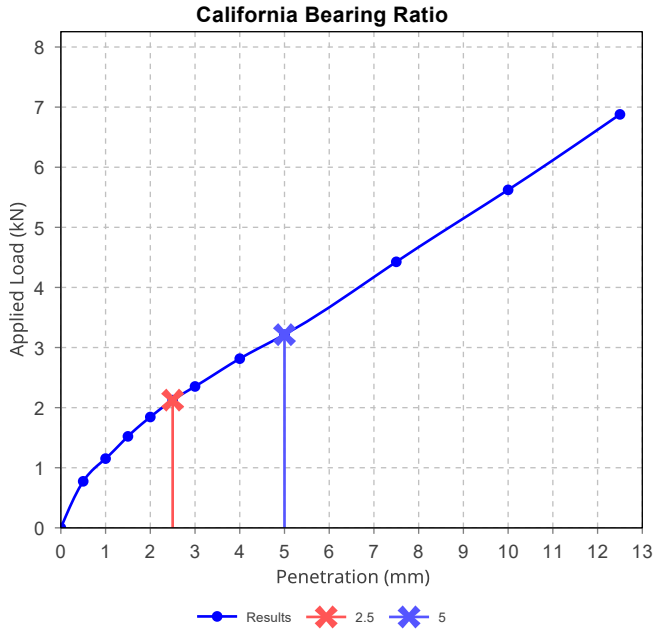
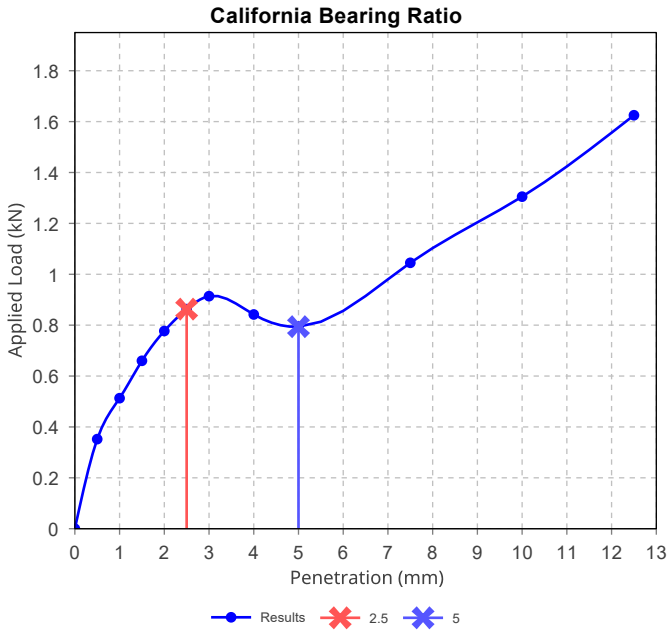
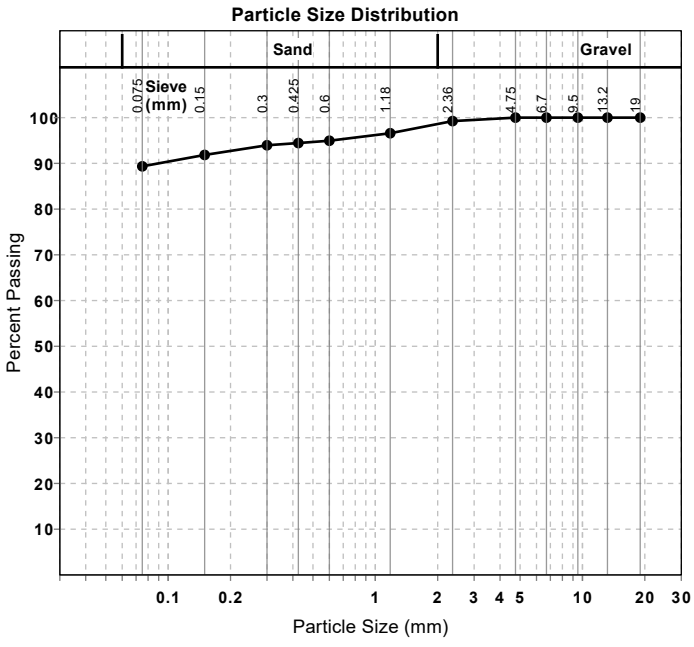
Approved Signatory: Ricky Sinnott
Laboratory Manager

Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	5 mm		
CBR %	**16**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	2.05		
Optimum Moisture Content (%)	6.5		
Laboratory Density Ratio (%)	100.0		
Laboratory Moisture Ratio (%)	99.5		
Moisture Content at Placement (%)	6.6		
Moisture Content Top 30mm (%)	10.1		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
100%			







Material Test Report

Report Number: **P24104-449**
Issue Number: 4 - *This version supersedes all previous issues*
Reissue Reason: *Client Reference Added to Report*
Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Sample Number: S829E
Date Sampled: 16/01/2026
Dates Tested: 16/01/2026 - 28/01/2026
Sampling Method: Sampled by Client
The results apply to the sample as received
Preparation Method: AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection: Selected by Client
Sample Location: **TP3, Depth: 0.25-0.55m**
Material: Silty SAND(SP)Greyish Brown
Material Source: Insitu

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Approved Signatory: Ricky Sinnott
Laboratory Manager
Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**7**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	2.05		
Optimum Moisture Content (%)	6.5		
Laboratory Density Ratio (%)	95.0		
Laboratory Moisture Ratio (%)	98.5		
Moisture Content at Placement (%)	6.5		
Moisture Content Top 30mm (%)	10.7		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
95%			

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	Not Obtainable		
Plastic Limit (%)	Not Obtainable		
Plasticity Index (%)	**Non Plastic**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1 / AS 1289.3.1.2 / AS 1289.3.9.1 / AS 1289.3.9.2		
Linear Shrinkage (%)			
Cracking Crumbling Curling			

Particle Size Distribution (AS1289 3.6.1)			
Sieve	Passed %	Passing Limits	
19 mm	**100**		
13.2 mm	**100**		
9.5 mm	**100**		
6.7 mm	**100**		
4.75 mm	**100**		
2.36 mm	**99**		
1.18 mm	**97**		
0.6 mm	**95**		
0.425 mm	**94**		
0.3 mm	**94**		
0.15 mm	**92**		
0.075 mm	**89**		

Material Test Report

Report Number:	**P24104-449**
Issue Number:	4 - *This version supersedes all previous issues*
Reissue Reason:	*Client Reference Added to Report*
Date Issued:	28/01/2026
Client:	CQ Soil Testing Pty Ltd
Contact:	Alison Alick
Project Number:	P24104
Project Name:	CQST Labs
Project Location:	Delivered
Contractor:	CQ Soil Testing
Client Reference:	CQ30145 Tomlins & Dobsons Road
Work Request:	829
Sample Number:	S829G
Date Sampled:	16/01/2026
Dates Tested:	16/01/2026 - 23/01/2026
Sampling Method:	Sampled by Client
	The results apply to the sample as received
Preparation Method:	AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection:	Selected by Client
Sample Location:	**TP4, Depth: 0.2-0.4m**
Material:	Silty CLAY(CL)Dark Brown
Material Source:	Insitu

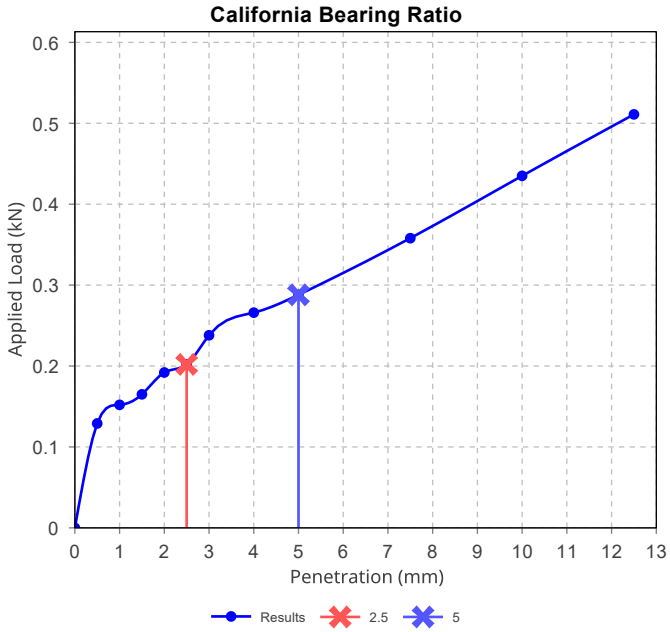
CQ Soil Laboratory
32 Alexandra Street Park Avenue QLD 4701
Phone: 07 4839 7345
Email: ricky@cqsl.com.au

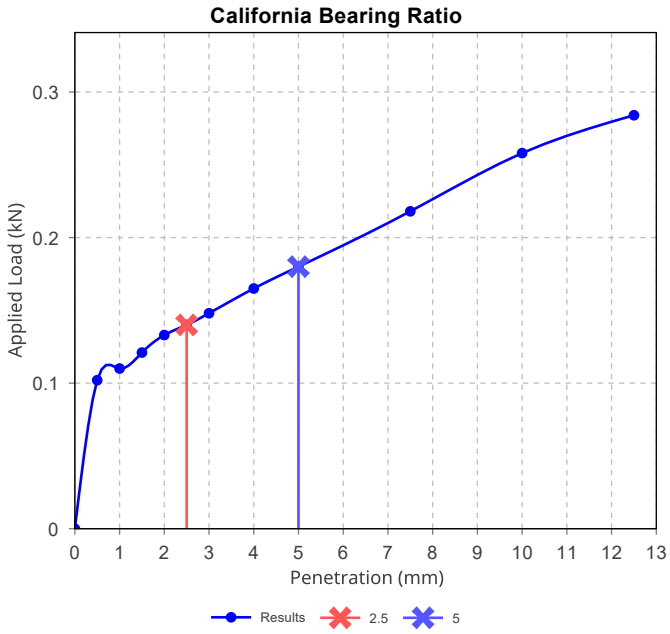
Accredited for compliance with ISO/IEC 17025 - Testing

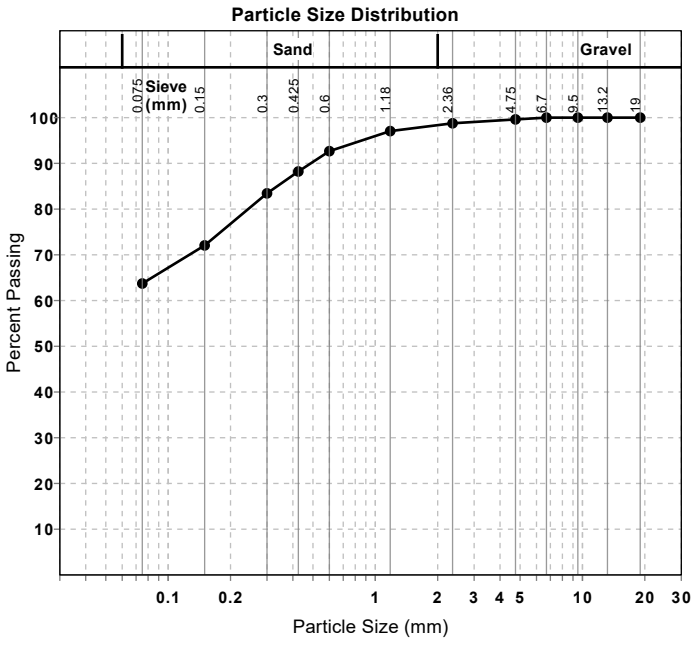
Approved Signatory: Ricky Sinnott
Laboratory Manager

Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**1.5**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.77		
Optimum Moisture Content (%)	12.5		
Laboratory Density Ratio (%)	100.0		
Laboratory Moisture Ratio (%)	101.0		
Moisture Content at Placement (%)	12.8		
Moisture Content Top 30mm (%)	23.2		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
100%			







Material Test Report

CQ Soil Laboratory
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Approved Signatory: Ricky Sinnott
Laboratory Manager
Laboratory Number: 21232

Report Number: **P24104-449**
Issue Number: 4 - *This version supersedes all previous issues*
Reissue Reason: *Client Reference Added to Report*
Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Sample Number: S829G
Date Sampled: 16/01/2026
Dates Tested: 16/01/2026 - 23/01/2026
Sampling Method: Sampled by Client
The results apply to the sample as received
Preparation Method: AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection: Selected by Client
Sample Location: **TP4, Depth: 0.2-0.4m**
Material: Silty CLAY(CL)Dark Brown
Material Source: Insitu

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**1.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.77		
Optimum Moisture Content (%)	12.5		
Laboratory Density Ratio (%)	95.0		
Laboratory Moisture Ratio (%)	100.0		
Moisture Content at Placement (%)	12.7		
Moisture Content Top 30mm (%)	21.6		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
95%			

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	34		
Plastic Limit (%)	15		
Plasticity Index (%)	**19**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1		
Linear Shrinkage (%)	**11.5**		
Cracking Crumbling Curling	None		

Particle Size Distribution (AS1289 3.6.1)			
Sieve	Passed %	Passing Limits	
19 mm	**100**		
13.2 mm	**100**		
9.5 mm	**100**		
6.7 mm	**100**		
4.75 mm	**100**		
2.36 mm	**99**		
1.18 mm	**97**		
0.6 mm	**93**		
0.425 mm	**88**		
0.3 mm	**83**		
0.15 mm	**72**		
0.075 mm	**64**		

Material Test Report

Report Number:	**P24104-449**
Issue Number:	4 - *This version supersedes all previous issues*
Reissue Reason:	*Client Reference Added to Report*
Date Issued:	28/01/2026
Client:	CQ Soil Testing Pty Ltd
Contact:	Alison Alick
Project Number:	P24104
Project Name:	CQST Labs
Project Location:	Delivered
Contractor:	CQ Soil Testing
Client Reference:	CQ30145 Tomlins & Dobsons Road
Work Request:	829
Sample Number:	S829K
Date Sampled:	16/01/2026
Dates Tested:	16/01/2026 - 23/01/2026
Sampling Method:	Sampled by Client
	The results apply to the sample as received
Preparation Method:	AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection:	Selected by Client
Sample Location:	**TP6, Depth: 0.2-0.5m**
Material:	Silty CLAY(CL/CI)Greyish Brown
Material Source:	Insitu

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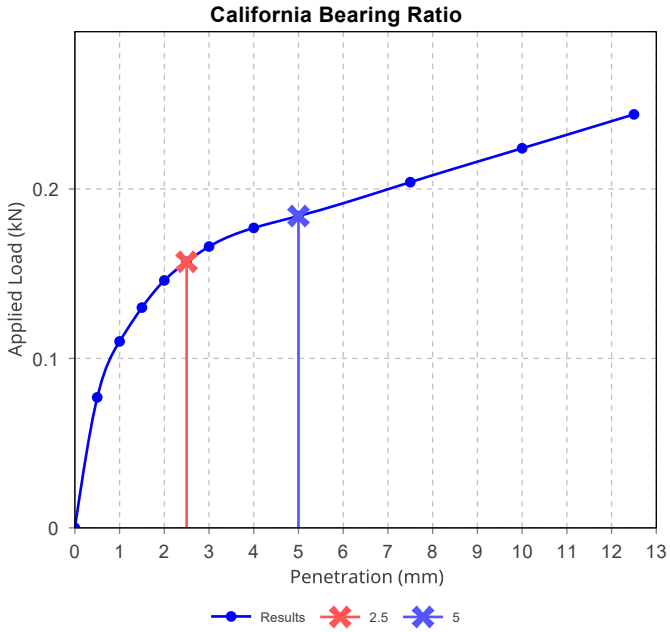
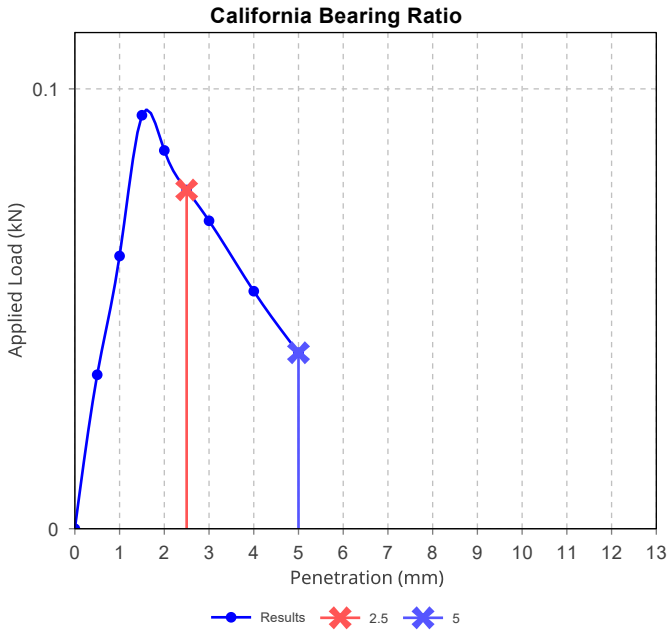
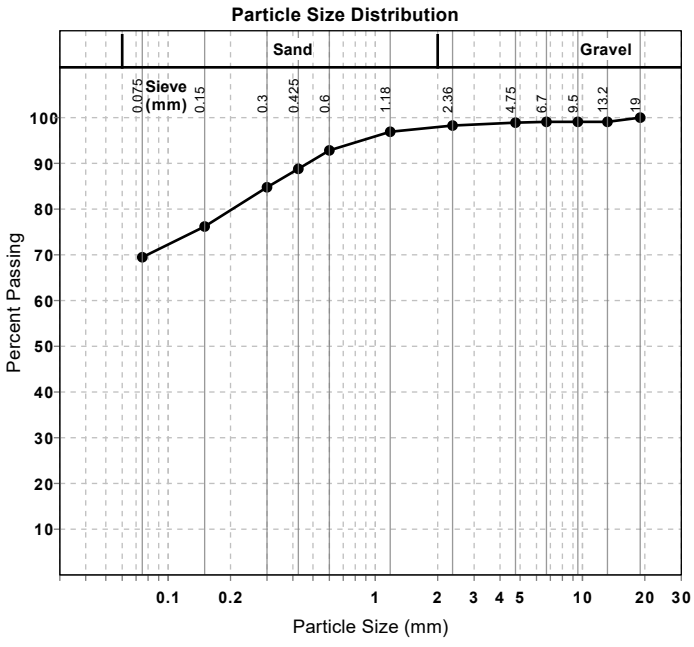
Approved Signatory: Ricky Sinnott
Laboratory Manager

Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**1.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.74		
Optimum Moisture Content (%)	8.5		
Laboratory Density Ratio (%)	101.0		
Laboratory Moisture Ratio (%)	89.0		
Moisture Content at Placement (%)	7.5		
Moisture Content Top 30mm (%)	19.6		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
100%			







Material Test Report

Report Number: **P24104-449**
Issue Number: 4 - *This version supersedes all previous issues*
Reissue Reason: *Client Reference Added to Report*
Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Sample Number: S829K
Date Sampled: 16/01/2026
Dates Tested: 16/01/2026 - 23/01/2026
Sampling Method: Sampled by Client
The results apply to the sample as received
Preparation Method: AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection: Selected by Client
Sample Location: **TP6, Depth: 0.2-0.5m**
Material: Silty CLAY(CL/CI)Greyish Brown
Material Source: Insitu

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Approved Signatory: Ricky Sinnott
Laboratory Manager
Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**0.5**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.74		
Optimum Moisture Content (%)	8.5		
Laboratory Density Ratio (%)	95.0		
Laboratory Moisture Ratio (%)	99.5		
Moisture Content at Placement (%)	8.4		
Moisture Content Top 30mm (%)	17.6		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	73.7		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
95%			

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	37		
Plastic Limit (%)	17		
Plasticity Index (%)	**20**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1		
Linear Shrinkage (%)	**12.0**		
Cracking Crumbling Curling	Curling		

Particle Size Distribution (AS1289 3.6.1)			
Sieve	Passed %	Passing Limits	
19 mm	**100**		
13.2 mm	**99**		
9.5 mm	**99**		
6.7 mm	**99**		
4.75 mm	**99**		
2.36 mm	**98**		
1.18 mm	**97**		
0.6 mm	**93**		
0.425 mm	**89**		
0.3 mm	**85**		
0.15 mm	**76**		
0.075 mm	**69**		

Material Test Report

Report Number:	**P24104-449**
Issue Number:	4 - *This version supersedes all previous issues*
Reissue Reason:	*Client Reference Added to Report*
Date Issued:	28/01/2026
Client:	CQ Soil Testing Pty Ltd
Contact:	Alison Alick
Project Number:	P24104
Project Name:	CQST Labs
Project Location:	Delivered
Contractor:	CQ Soil Testing
Client Reference:	CQ30145 Tomlins & Dobsons Road
Work Request:	829
Sample Number:	S829M
Date Sampled:	16/01/2026
Dates Tested:	16/01/2026 - 23/01/2026
Sampling Method:	Sampled by Client
	The results apply to the sample as received
Preparation Method:	AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection:	Selected by Client
Sample Location:	**TP7, Depth: 0.1-0.3m**
Material:	Silty CLAY(CH)Black
Material Source:	Insitu

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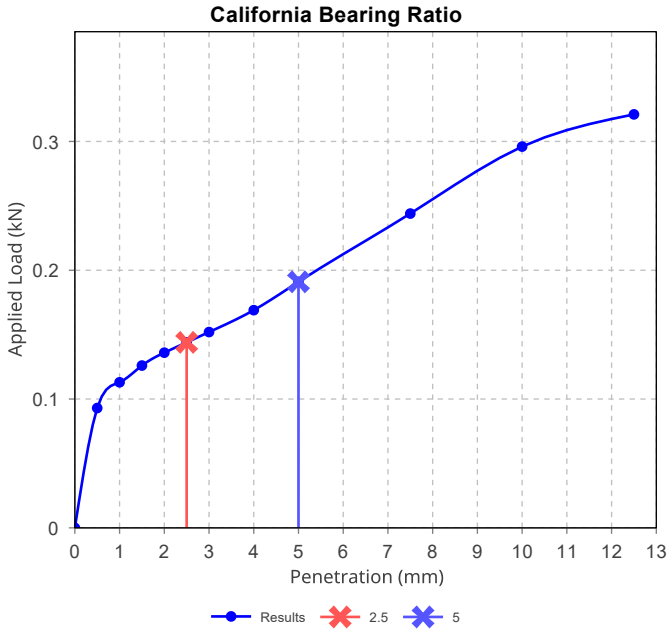
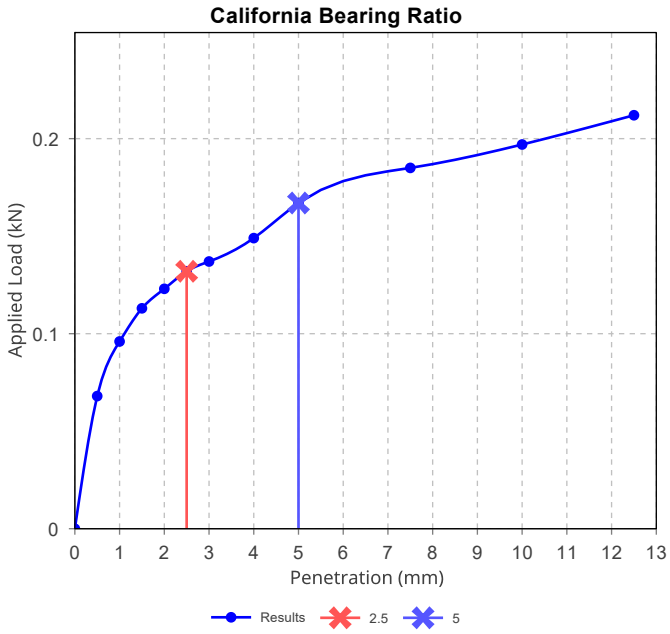
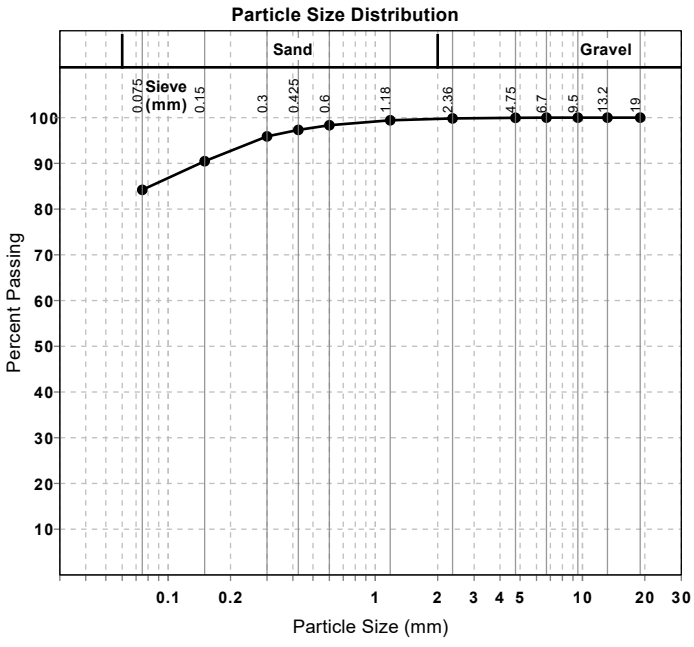
Approved Signatory: Ricky Sinnott
Laboratory Manager

Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**1.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.56		
Optimum Moisture Content (%)	15.0		
Laboratory Density Ratio (%)	100.0		
Laboratory Moisture Ratio (%)	100.0		
Moisture Content at Placement (%)	15.1		
Moisture Content Top 30mm (%)	26.0		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
100%			







Material Test Report

Report Number: **P24104-449**
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Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Sample Number: S829M
Date Sampled: 16/01/2026
Dates Tested: 16/01/2026 - 23/01/2026
Sampling Method: Sampled by Client
The results apply to the sample as received
Preparation Method: AS 1289.1.1 - Sampling and Preparation of Soils
Site Selection: Selected by Client
Sample Location: **TP7, Depth: 0.1-0.3m**
Material: Silty CLAY(CH)Black
Material Source: Insitu

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Approved Signatory: Ricky Sinnott
Laboratory Manager
Laboratory Number: 21232

California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	2.5 mm		
CBR %	**1.0**		
Method of Compactive Effort	Standard		
Method used to Determine MDD	AS 1289 5.1.1 & 2.1.1		
Method used to Determine Plasticity	Visual		
Maximum Dry Density (t/m^3)	1.56		
Optimum Moisture Content (%)	15.0		
Laboratory Density Ratio (%)	95.0		
Laboratory Moisture Ratio (%)	100.5		
Moisture Content at Placement (%)	15.2		
Moisture Content Top 30mm (%)	33.5		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours (h)	72		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	0		
95%			

Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	56		
Plastic Limit (%)	27		
Plasticity Index (%)	**29**		

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1		
Linear Shrinkage (%)	**17.0**		
Cracking Crumbling Curling	Cracking		

Particle Size Distribution (AS1289 3.6.1)			
Sieve	Passed %	Passing Limits	
19 mm	**100**		
13.2 mm	**100**		
9.5 mm	**100**		
6.7 mm	**100**		
4.75 mm	**100**		
2.36 mm	**100**		
1.18 mm	**99**		
0.6 mm	**98**		
0.425 mm	**97**		
0.3 mm	**96**		
0.15 mm	**90**		
0.075 mm	**84**		

Material Test Report

Report Number: **P24104-449**
Issue Number: 4 - *This version supersedes all previous issues*
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Date Issued: 28/01/2026
Client: CQ Soil Testing Pty Ltd

Contact: Alison Alick
Project Number: P24104
Project Name: CQST Labs
Project Location: Delivered
Contractor: CQ Soil Testing
Client Reference: CQ30145 Tomlins & Dobsons Road
Work Request: 829
Dates Tested: 16/01/2026 - 28/01/2026
Location: Tomlins & Dobsons Road, Pavement investigation

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Moisture Content AS 1289 2.1.1					
Sample Number	Sample Location	Moisture Content (%)	Min	Max	Material
S829A	TP1, Depth: 0.2-0.3m	14.3 %	**	**	Silty CLAY(CI)Greyish Brown
S829C	TP2, Depth: 0.4-0.65m	12.1 %	**	**	Silty CLAY(CL)Reddish Brown
S829E	TP3, Depth: 0.25-0.85m	3.4 %	**	**	Silty SAND(SP)Greyish Brown
S829G	TP4, Depth: 0.2-0.4m	13.1 %	**	**	Silty CLAY(CL)Dark Brown
S829I	TP5, Depth: 0.2-0.5m	13.4 %	**	**	Silty CLAY(CI)Greyish Brown
S829K	TP6, Depth: 0.2-0.5m	17.4 %	**	**	Silty CLAY(CL/CI)Greyish Brown
S829M	TP7, Depth: 0.1-0.3m	16.1 %	**	**	Silty CLAY(CH)Black

LIMITATIONS

Recommendations given in this report are based on the information supplied by the client regarding the proposed building construction in conjunction with the findings of the investigation. Any change in construction type, building location or omission in the client supplied information, may require additional testing and/or make the recommendations invalid.

The recommendations herein may identify a target soil stratum into which the footings should be founded. The target stratum has been located by the depth in mm of the target stratum's upper horizon boundary below the existing ground surface level at the time of the site investigation. Any cutting or filling works and any surface erosion or deposits subsequent to the site investigation, will alter the measured location of the stratum relative to the surface. Where required, the author should be notified in such cases to confirm the location of the target stratum.

The description of the soil given in Section 3.0 of this report is intended as a brief overview of the soil's primary constituents. For a detailed classification of the soil, the reader should refer to the Soil Profile Reports and/or Borehole Reports.

Every reasonable effort has been made to locate the test sites so that the borehole profiles are representative of the soil conditions within the area investigated. The client should be made aware, however, that exploration is limited by time available and economic restraints. In some cases, soil conditions can change dramatically over short distances, therefore, even careful exploration programs may not locate all the variations.

If soil conditions different from those shown in this report are encountered or are inferred from other sources, then the author must be notified immediately.

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All information contained within this report is the intellectual property of the entity trading as CQ Soil Testing. All information contained within can only be used for the express purposes of the commissioned scope of works.

Any dimensions, contours, slope directions and magnitudes shown on the site sketch plan shall not be used for any building construction or costing calculations. The purpose of the plan is to show the approximate location of field tests only.

Any changes made to these recommendations by persons unauthorized by the author will legally be interpreted by that person assuming the responsibility for the long-term performance of the footing system.

The recommendations contained in this report have not taken into consideration the long-term effects of any previous, current, or potential subsurface work by mining companies or potential slope instability problems. At the time of writing this report neither our client (nor his agent) nor the local authority had made the author aware that these problems may be affecting this allotment. If a mining subsidence or slope stability assessment is required for this allotment, the recommendations of a suitably qualified geotechnical engineer should be sought.

Removal of trees from a site before an investigation can cause significant swelling of the soil over large areas. The removal of large trees from a construction site during development is rarely picked up during the investigation phase and is generally outside the scope of AS2870. Sites affected by large trees are often classified "P". If, during the footing excavation, it is noticed that there are soils with varying moisture contents or evidence of large trees having been removed CQ Soil Testing should be notified immediately.

The following documents are available from the CSIRO and QBCC and shall be read and adhered to in relation to this site:

Builder's Guide to Preventing Damage to Dwellings- Part 1 Site Investigation and Preparation
http://www.publish.csiro.au/nid/22/pid/3621.html

Builder's Guide to Preventing Damage to Dwellings- Part 2 Sound Construction Methods
http://www.publish.csiro.au/nid/22/pid/3661.html

QBCC Subsidence Fact Sheet
https://www.qbcc.qld.gov.au/sites/default/files/Homeowner%27s%20Guide%20to%20Subsidence.pdf