



NOTE

TECHNICAL CATEGORY CLASSIFICATION HAS BEEN ASSESSED
IN ACCORDANCE WITH SECTION 3 OF THE MBIE
GUIDELINES (2012)

LEGEND

- TC1 EQUIVALENT BEHAVIOUR
- TC2 EQUIVALENT BEHAVIOUR



NOTES - PROPERTY DATA FROM LINZ

REV	DATE	REVISION DETAILS	APPROVED	DRAWN	DESIGNED
A	23/10/20	ISSUE FOR INFORMATION	J. Kupec	R. Dawson	
				CHECKED	
				K. Foote	
				APP-ROVED	
					DATE
				J. Kupec	2023/10/20



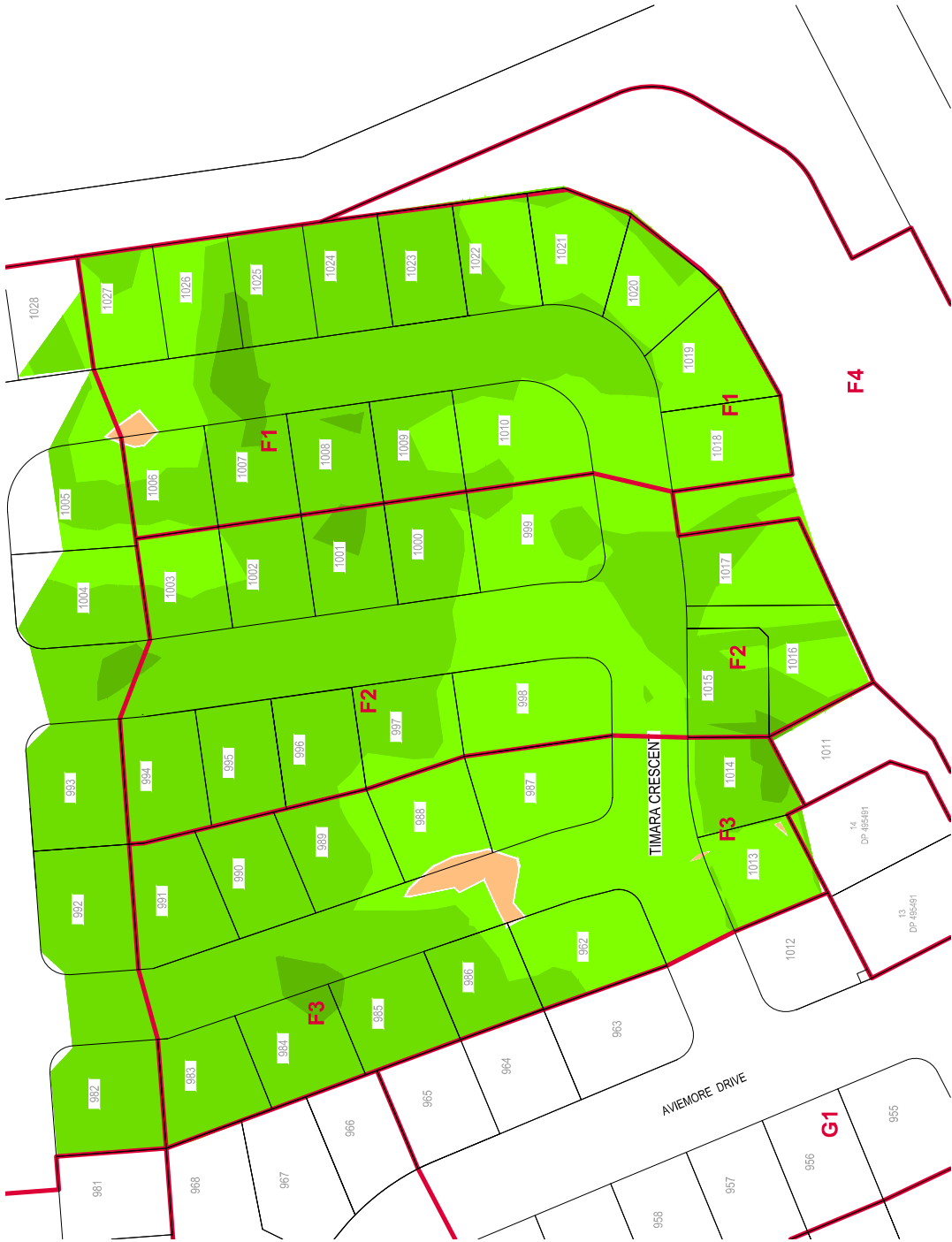
LEGEND

CUT/FILL BANDING			Lower_value		Upper_value	Colour
-3	to	-2.4	m			
-2.4	to	-1.8	m			
-1.8	to	-1.2	m			
-1.2	to	-0.6	m			
-0.6	to	0	m			
0	to	0.01	m			
0.01	to	0.6	m			
0.6	to	1.2	m			
1.2	to	1.8	m			
1.8	to	2.4	m			
2.4	to	3	m			

This AS BUILT drawing has been prepared based on information provided by the contractor. ASD Continuing

NOTE:

1. FILL BANDING SHOWN IS BETWEEN EXISTING SUBGRADE (STRIPPED EXISTING SURFACE) TO FINISHED SUBGRADE.



CLIENT

REV: A | DATE: 18/02/23 | ISSUED FOR INFORMATION

APPROVED: K. ASHBY

DRAWN: A. COLUMBUS
CHECKED: D. WATSON
APPROVED:

DESIGNED: A. COLUMBUS

PROJECT: PRESTONS PARK

TITLE: AS-BUILT EARTHWORKS FILL PLAN
SUBSTAGE F1, F2 & F3
STAGE 5

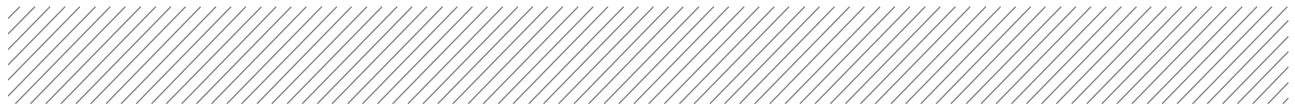
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT No.: 235361

SCALE: 1:500

DRAWING No.: AB-PS-S5-EW-04

REV: A



Appendix B

Compaction Curves

Test Report

Client: K.B. Contracting & Quarries Limited
Address: PO Box 19746, Woolston, Christchurch 8241
Client Ref: Not Advised
Job Location: Mcleans Island
Material: Pitrun
Material Source: Mcleans Island

Sample Date: 19/04/2021 13:00
Sampled By: Pete Haward
Laboratory No: C21/0839
Report No: 45807 **Final**
Report Date: 27/04/2021

Test Methods

- | | | |
|---|--|-----------------------------|
| 1 | The clay index | NZS 4407:2015 Test 3.5 |
| 2 | Particle size distribution - Subsidiary method by dry sieving | NZS 4407:2015 Test 3.8.2 |
| 3 | Determination of the dry density/water content relationship - New Zealand vibrating hammer compaction test | NZS4402:1986 Test 4.1.3 |
| 4 | * Sampling from stockpiles of well graded aggregate - machine method | NZS4407:2015 Test 2.4.6.3.2 |
- * Test methods marked with an asterisk are not accredited.

The Clay Index

Results

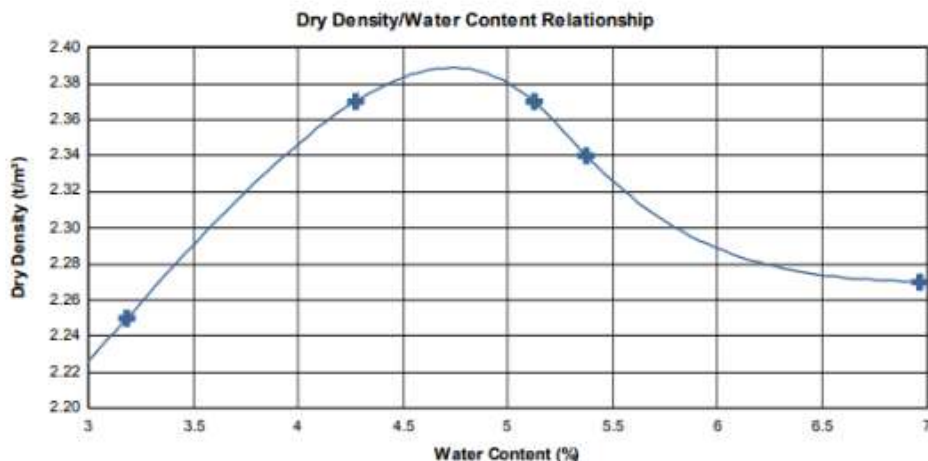
Clay Index: 1.9
Test Date: 23-04-2021

Note: The field sample was sourced from natural fines

Determination of the Dry Density/Water Content Relationship - New Zealand Vibrating Hammer Compaction Test

Results

Dry Density (t/m ³)	2.25	2.37	2.37	2.34	2.27
Water Content (%)	3.2	4.3	5.1	5.4	7.0



Laboratory No: C21/0839

Report No: 45807

Report Date: 27/04/2021

Final

Results

Maximum Dry Density (t/m³)

2.38

Optimum Water Content (%)

4.8

Test Fraction

Passing 37.5mm sieve

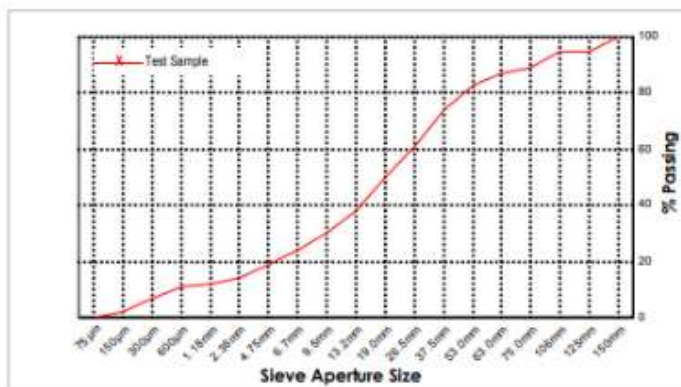
Test Date:

20-04-2021

The Particle-Size Distribution - Subsidiary Method by Dry Sieving

Results

Sieve Size (BSS)	Percent passing	Specification
150mm	100	
125mm	95	
106mm	95	
75.0mm	89	
63.0mm	87	
53.0mm	83	
37.5mm	74	
26.5mm	61	
19.0mm	50	
13.2mm	38	
9.5mm	30	
6.7mm	24	
4.75mm	19	
2.36mm	14	
1.18mm	12	
600µm	11	
300µm	7	
150µm	2	
75µm	0	



Note: PSD results obtained from an oven dry test sample.

Test Date:

27-04-2021

Sample Notes

Sample received in a damp condition.

Test results apply to sample as received.

Date of sample receipt: 20/04/2021

Vicky Henderson
Approved Signatory
Laboratory Manager
IANZ Accreditation No: 439



Tests indicated as not accredited
are outside the scope of the
laboratory's accreditation.
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except in full.

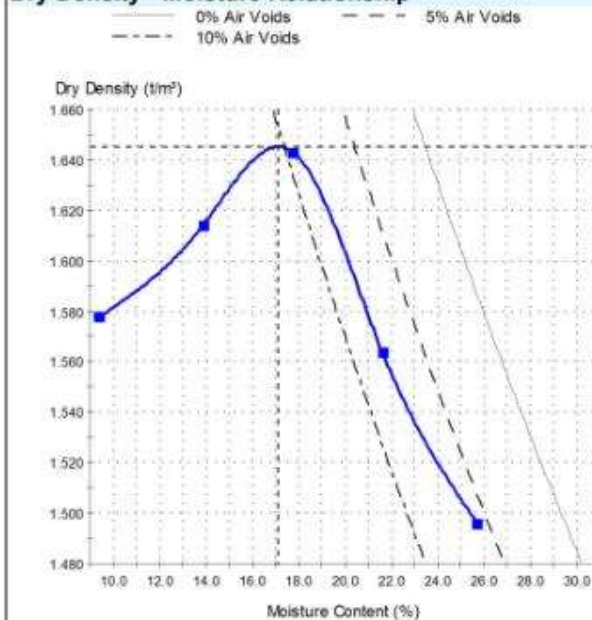
Maximum Dry Density Report

Client: City Care Limited PO Box 7669 Sydenham Christchurch 8240 NZ Project: City Care	 The tests reported herein (unless otherwise indicated) have been performed in accordance with the laboratory's scope of accreditation. Samples are tested as received, in natural condition, unless stated otherwise in the comments. This report may only be reproduced in full.  Approved Signatory: Liam Brennan (Laboratory Technician) IANZ Accreditation No.200 Date of Issue: 28/01/2021
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Sample Details

Sample ID: CAN21S-00814	Client Sample ID: Lab Ref: 0095/21
Material: Silty Sand	Sample Source: Miscellaneous Material Source
Site/Sampled From: Ex Oakbridge, Eastern BDY Reserve	Date Sampled: 27/01/2021
Specification: Vibrating Hammer Compaction Test	Sampled By: Advised - See Comments
Sampling Method: As Received - Not Accredited	Date Tested: 28/01/2021
Technician: Maciej Gaworecki	Sampling Endorsed?: No

Dry Density - Moisture Relationship



Test Results

NZS 4402:1986 Test 4.1.3 - 1986

Maximum Dry Density (t/m³):	1.64
Optimum Moisture (%):	17
Solid Density (t/m³):	2.68 assumed
Fraction Tested Passes (mm):	37.5
Material Removed (%):	0
Sample History:	Natural
Tested By:	Maciej Gaworecki
Date Tested:	28/01/2021

Comments

Compaction for test points @ 21.6% & 25.7% ceased prior to 3 minutes due to oversaturation causing ejection of fines from sample.
Material sampled by Clive Gould

Report No: MDD:CAN20S-01176
Issue No: 1

Maximum Dry Density Report

Client: Toni O'Regan
City Care Limited
PO Box 7669
Sydenham

Christchurch 8240
NZ

Project: QA Testing - City Care Ltd

The tests reported herein (unless otherwise indicated) have been performed in accordance with the laboratory's scope of accreditation. Samples are tested as received, in natural condition, unless stated otherwise in the comments. This report may only be reproduced in full.



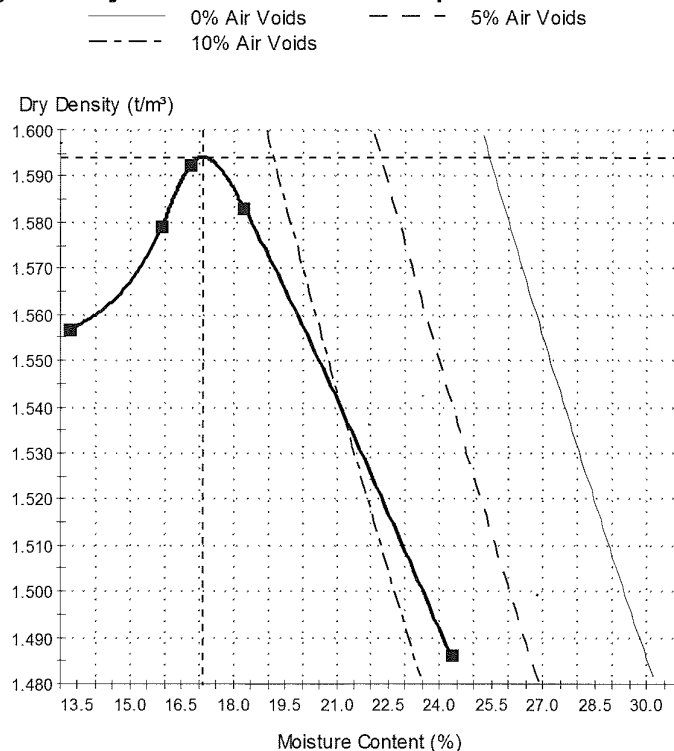

Approved Signatory: Max Burford
(Supervisor)
IANZ Accreditation No:200
Date of Issue: 22/01/2020

Sample Details

Sample ID: CAN20S-01176
Material: Sand
Site/Sampled From: CDL Prestons Road
Specification: Vibrating Hammer Compaction Test
Sampling Method: Not Advised
Technician: Atu Rova

Client Sample ID: 0055/20 Sample 3
Sample Source: Miscellaneous Material Source
Date Sampled: 20/01/2020
Sampled By: Advised - See Comments
Date Tested: 21/01/2020
Sampling Endorsed?: No

Dry Density - Moisture Relationship



Test Results

NZS 4402:1986 Test 4.1.3
Maximum Dry Density (t/m³): 1.60
Optimum Moisture (%): 17
Solid Density (t/m³): 2.68 assumed
Fraction Tested Passes (mm): 37.5
Material Removed (%): 0
Sample History: Natural
Tested By: Atu Rova
Date Tested: 21/01/2020

Comments

* Sample 3
* Material sampled by Clive Gould.

Report No: MDD:CAN20S-01175
Issue No: 1

Maximum Dry Density Report

Client: Toni O'Regan
 City Care Limited
 PO Box 7669
 Sydenham

 Christchurch 8240
 NZ

Project: QA Testing - City Care Ltd

The tests reported herein (unless otherwise indicated) have been performed in accordance with the laboratory's scope of accreditation. Samples are tested as received, in natural condition, unless stated otherwise in the comments. This report may only be reproduced in full.

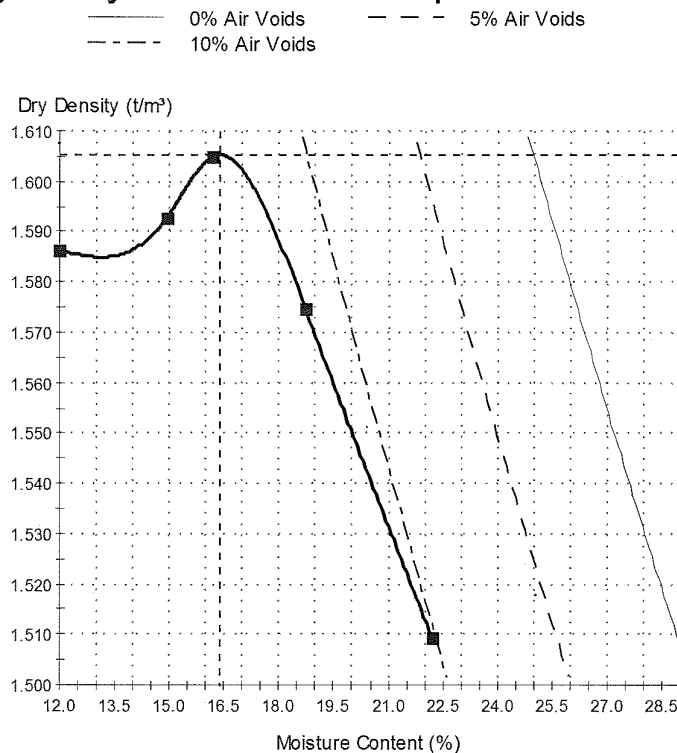


Max Burford
 Approved Signatory: Max Burford
 (Supervisor)
 IANZ Accreditation No: 200
 Date of Issue: 22/01/2020

Sample Details

Sample ID:	CAN20S-01175	Client Sample ID:	0054/20 Sample 2
Material:	Sand	Sample Source:	Miscellaneous Material Source
Site/Sampled From:	CDL Prestons Road	Date Sampled:	20/01/2020
Specification:	Vibrating Hammer Compaction Test	Sampled By:	Advised - See Comments
Sampling Method:	Not Advised	Date Tested:	21/01/2020
Technician:	Atu Rova	Sampling Endorsed?:	No

Dry Density - Moisture Relationship



Test Results

NZS 4402:1986 Test 4.1.3
Maximum Dry Density (t/m³): 1.60
Optimum Moisture (%): 16
Solid Density (t/m³): 2.68 assumed
Fraction Tested Passes (mm): 37.5
Material Removed (%): 0
Sample History: Natural
Tested By: Atu Rova
Date Tested: 21/01/2020

Comments

* Sample 2
 * Material sampled by Clive Gould.

Maximum Dry Density Report

Client: Toni O'Regan
City Care Limited
PO Box 7669
Sydenham

Christchurch 8240
NZ

Project: QA Testing - City Care Ltd



The tests reported herein (unless otherwise indicated) have been performed in accordance with the laboratory's scope of accreditation. Samples are tested as received, in natural condition, unless stated otherwise in the comments. This report may only be reproduced in full.



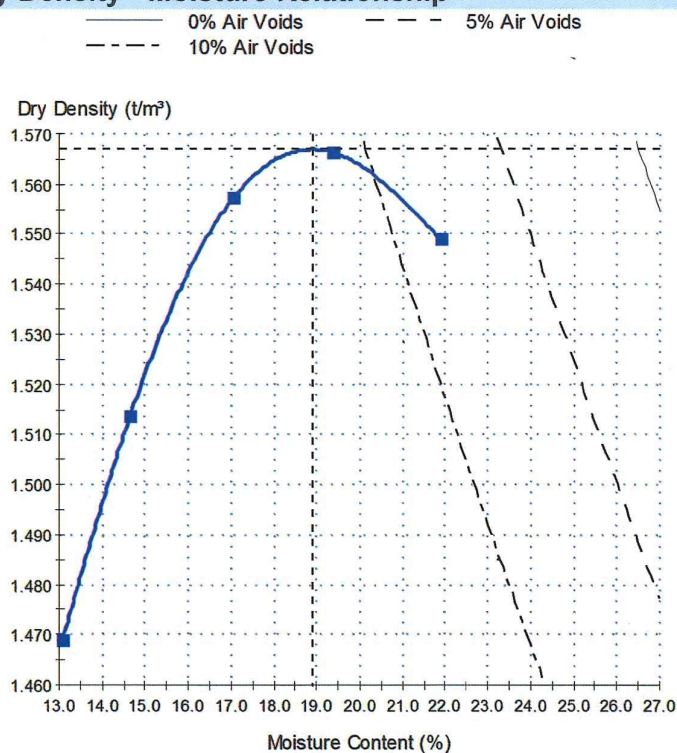
The results in this report relate only to the items / samples that were tested

Approved Signatory: Rebecca Royfee
(Laboratory Technician)
IANZ Accreditation No:200
Date of Issue: 23/10/2020

Sample Details

Sample ID:	CAN20S-17343	Client Sample ID:	1691/20
Material:	Sand	Sample Source:	Miscellaneous Material Source
Site/Sampled From:	CD2 Prestons - Stage 5 East side of S/P	Date Sampled:	20/10/2020
Specification:	Vibrating Hammer Compaction Test	Sampled By:	Advised - See Comments
Sampling Method:	Stated to be NZS 4407:2015 2.4.6.5	Date Tested:	22/10/2020
Technician:	Laura Cranston	Sampling Endorsed?:	No

Dry Density - Moisture Relationship



Test Results

NZS 4402:1986 Test 4.1.3 - 1986

Maximum Dry Density (t/m³): 1.56

Optimum Moisture (%): 19

Solid Density (t/m³): 2.68 assumed

Fraction Tested Passes (mm): 37.5

Material Removed (%): 0

Sample History: Natural

Tested By: Laura Cranston

Date Tested: 22/10/2020

Comments

Sampled by A Hadlee

Test Report

Client: K.B. Contracting & Quarries Limited
Address: PO Box 19746, Woolston, Christchurch 8241
Job Location: Mcleans Island
Material: Pitrun
Material Source: Mcleans Island

Sample Date: 14/10/2021 10:00
Sampled By: Pete Haward
Laboratory No: C21/1895
Client Ref: Not Advised
Report No: 52897
Report Date: 20/10/2021 **Final**

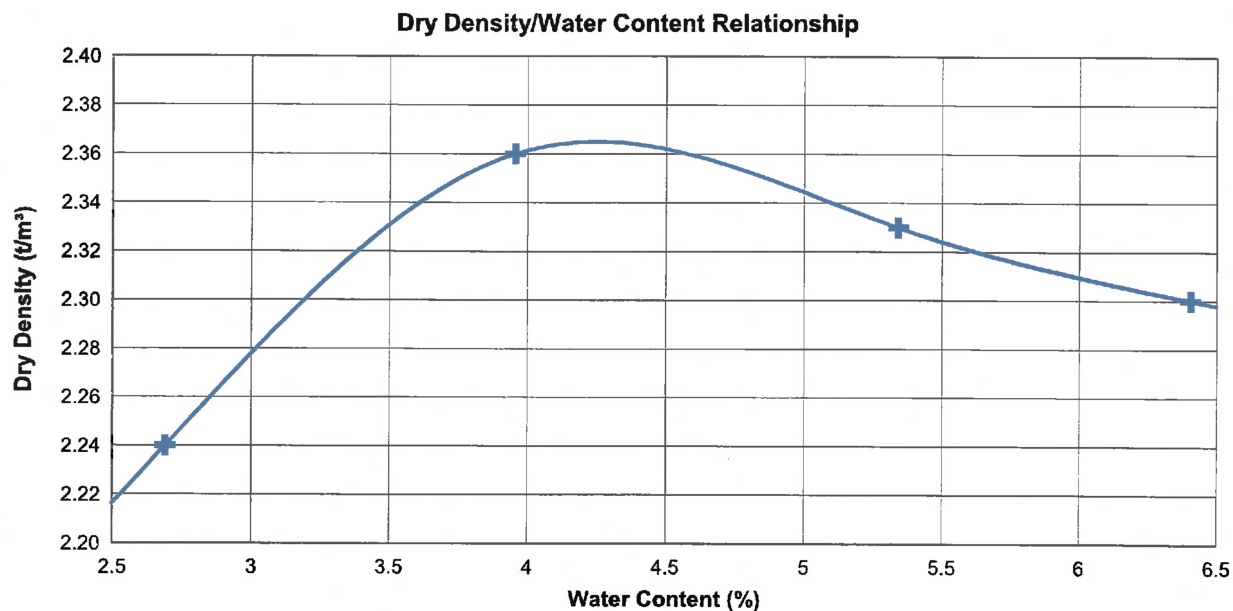
Test Methods

- 1 Determination of the dry density/water content relationship - New Zealand vibrating hammer compaction test NZS4402:1986 Test 4.1.3
- 2 Sampling from stockpiles of well graded aggregate - machine method NZS4407:2015 Test 2.4.6.3.2

Determination of the Dry Density/Water Content Relationship - New Zealand Vibrating Hammer Compaction Test

Results

Dry Density (t/m ³)	2.24	2.36	2.33	2.30
Water Content (%)	2.7	4.0	5.3	6.4



Results

Natural moisture content (%) 3.5
Maximum Dry Density (t/m³) 2.36
Optimum Water Content (%) 4.2
Test Fraction Passing 37.5mm sieve
Test Date: 19-10-2021

Laboratory No: C21/1895
Report No: 52897
Report Date: 20/10/2021

Final

Sample Notes

Sample received in a damp condition.

Test results apply to sample as received.

Date of sample receipt: 14/10/2021

Vicky Henderson
Laboratory Manager



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