



REPUBLIC OF VANUATU

MINISTRY OF INFRASTRUCTURE
AND PUBLIC UTILITIES


PUBLIC WORKS DEPARTMENT.

**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 22
Address :	Port Vila, Port Vila	Report Date :	13/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1467	S-1469	S-1471	
Test Number :	Depth 10.95	Depth 15.45m	Depth 19.5m	
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	
Date Tested :	4/07/2018	4/07/2018	4/07/2018	
Material Type :				
Material Source :				
Lot Number :	BoreHole 2	BoreHole 2	BoreHole 2	
Sample Location :	Teouma Bridge BH2 Depth 10.95m	Teouma Bridge BH2 Depth 15.45m	Teouma Bridge BH2 Depth 19.5m	
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	62.5	85	74.5	
Remarks :				

	<p>APPROVED SIGNATORY</p>  <p>Document Code RF120-6</p>
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**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 27
Address :	Port Vila, Port Vila	Report Date :	18/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1474	S-1478	S-1480	S-1481
Test Number :	Depth 19.95m	Depth 28.95m	Depth 30m	Depth 31.5m
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	26/06/2018
Date Tested :	16/07/2018	16/07/2018	16/07/2018	16/07/2018
Material Type :				
Material Source :				
Lot Number :	BoreHole 2	BoreHole 2	BoreHole 2	BoreHole 2
Sample Location :	Teouma Bridge BH2 Depth 19.95m	Teouma Bridge BH2 Depth 28.95m	Teouma Bridge BH2 Depth 30m	Teouma Bridge BH2 Depth 31.5m
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	82	64.5	66.5	68.5
Remarks :				

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**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 29
Address :	Port Vila, Port Vila	Report Date :	18/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1513	S-1514	S-1515	S-1517
Test Number :	Depth 6m	Depth 7.5m	Depth 16.5m	Depth 19.5m
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	26/06/2018
Date Tested :	16/07/2018	16/07/2018	16/07/2018	16/07/2018
Material Type :				
Material Source :				
Lot Number :				
Sample Location :	Teouma Bridge BoreHole 3 Depth 6m	Teouma Bridge BoreHole 3 Depth 7.5m	Teouma Bridge BoreHole 3 Depth 16.5m	Teouma Bridge BoreHole 3 Depth 19.5m
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	54	60.5	88	34.8
Remarks :				

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**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 30
Address :	Port Vila, Port Vila	Report Date :	18/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1518	S-1519	S-1522	S-1524
Test Number :	Depth 21m	Depth 22.5m	Depth 10m	Depth 12m
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	26/06/2018
Date Tested :	16/07/2018	16/07/2018	16/07/2018	16/07/2018
Material Type :				
Material Source :				
Lot Number :				
Sample Location :	Teouma Bridge BoreHole 3 Depth 21m	Teouma Bridge BoreHole 3 Depth 22.5m	Teouma Bridge BoreHole 3 Depth 10m	Teouma Bridge BoreHole 3 Depth 12m
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	40.4	75.5	39.2	46.4
Remarks :				

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**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 41
Address :	Port Vila, Port Vila	Report Date :	25/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1543	S-1544	S-1546	S-1547
Test Number :	Depth 1.5m	Depth 1.95m	Depth 3.45m	Depth 4.5m
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	26/06/2018
Date Tested :	23/07/2018	23/07/2018	23/07/2018	23/07/2018
Material Type :				
Material Source :	BoreHole 4	Borehole 4	Borehole 4	Borehole 4
Lot Number :				
Sample Location :	Teouma Bridge Borehole 4 Depth 1.5m	Teouma Bridge Borehole 4 Depth 1.95m	Teouma Bridge Borehole 4 Depth 3.45m	Teouma Bridge Borehole 4 Depth 4.5m
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	67	40.6	76	43.2
Remarks :				

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MATERIALS
LABORATORY
PORT VILA

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 42
Address :	Port Vila, Port Vila	Report Date :	25/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1549	S-1550	S-1552	
Test Number :	Depth 7.5m	Depth 7.95m	Depth 12m	
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	
Date Tested :	23/07/2018	23/07/2018	23/07/2018	
Material Type :				
Material Source :	Borehole 4	Borehole 4	Borehole 4	
Lot Number :				
Sample Location :	Teouma Bridge Borehole 4 Depth 7.5m	Teouma Bridge Borehole 4 Depth 7.95m	Teouma Bridge Borehole 4 Depth 12m	
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	74.5	81	76	
Remarks :				

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MATERIALS
LABORATORY
PORT VILA

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 43
Address :	Port Vila, Port Vila	Report Date :	25/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1553	S-1555	S-1556	
Test Number :	Depth 12.5m	Depth 15.45m	Depth 16.5m	
Sampling Method :				
Date Sampled :	26/06/2018	26/06/2018	26/06/2018	
Date Tested :	23/07/2018	23/07/2018	23/07/2018	
Material Type :				
Material Source :	Borehole 4	Borehole 4	Borehole 4	
Lot Number :				
Sample Location :	Teouma Bridge Borehole 4 Depth 12.5m	Teouma Bridge Borehole 4 Depth 15.45m	Teouma Bridge Borehole 4 Depth 16.5m	
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	94.5	93	87	
Remarks :				

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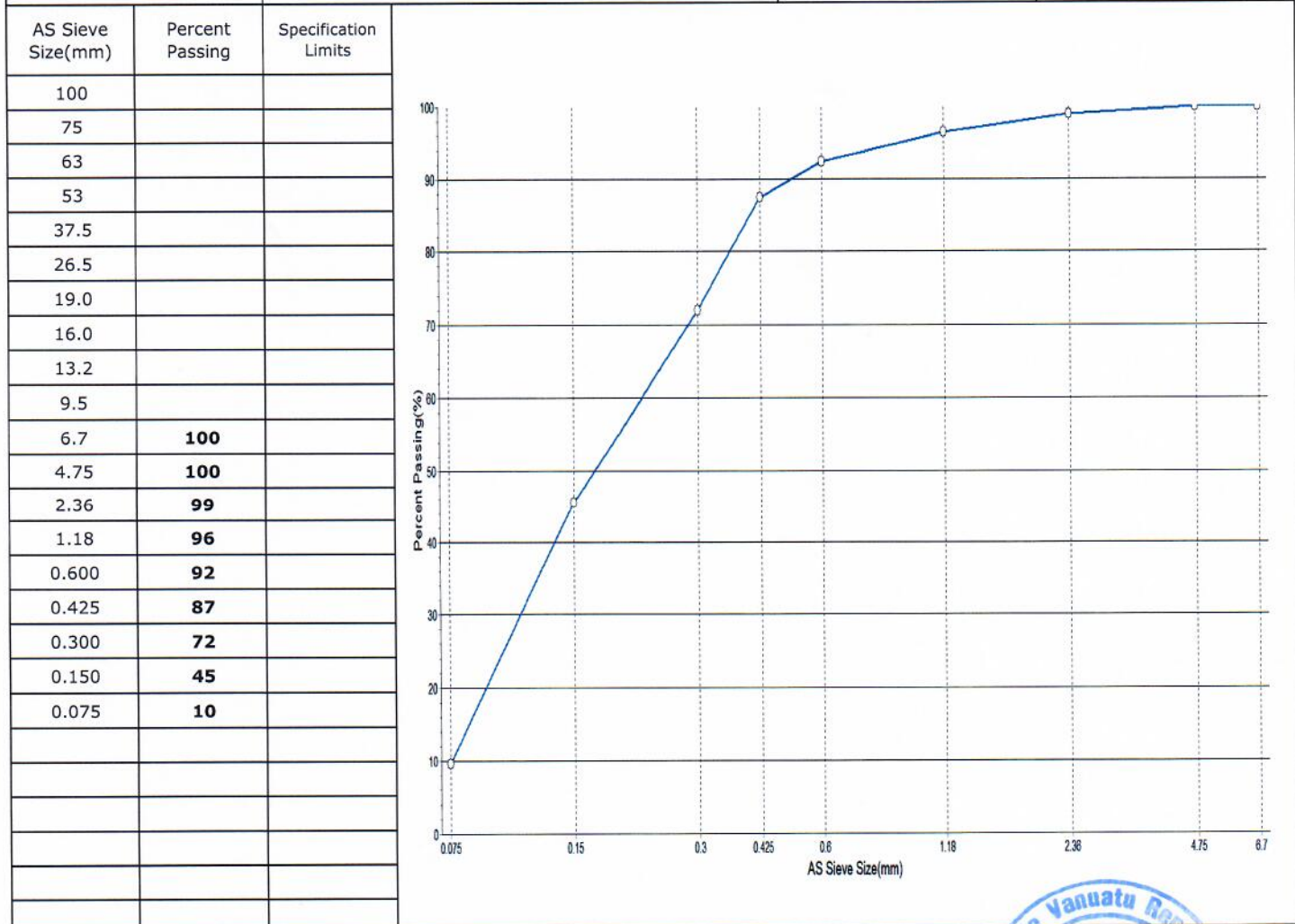
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MATERIALS
LABORATORY
PORT VILA

Particle Size Distribution Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 45
Address :	Port Vila, Port Vila	Report Date :	25/07/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.3.6.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1546	SAMPLE LOCATION	
Sampling Method :		Teouma Bridge	
Sampled By :	Client	Borehole 4	
Date Sampled :	26/06/2018	Depth 3.45m	
Date Tested :	25/07/2018	Test Number :	Depth 3.45m
Material Type :		Lot Number :	
Material Source :	Borehole 4	Specification Number :	
Remarks :			



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	 Document Code RF141-6



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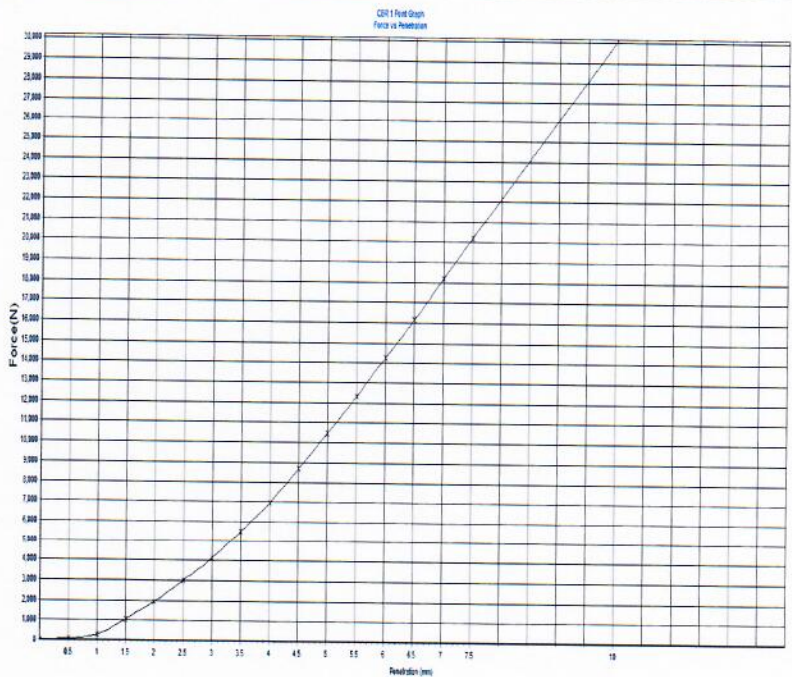
**MATERIALS
LABORATORY
PORT VILA**

California Bearing Ratio Report (1 Point)



Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 53
Address :	Port Vila, Port Vila	Report Date :	27/08/2018
Project Number :	CL/116	Order Number :	
Project Name :	Teouma Bridge	Test Method :	AS1289.6.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1602	SAMPLE LOCATION	
Date Sampled :	13/08/2018	Teouma Bridge Location 1 (Refer to attached map)	
Date Tested :	25/08/2018		
Sampled By :	Client	Lot Number :	
Sampling Method :		Test Number :	
Material Source :			
Material Type :			
Remarks :			

Moisture Method :	AS1289.2.1.1
Maximum Dry Density (t/m ³) :	1.775
Optimum Moisture Content (%) :	15.6
Compactive Effort :	Modified
Nominated Percentage of MDD :	100
Nominated Percentage of OMC :	100
Achieved Percentage of MDD :	1140
Achieved Percentage of OMC :	129.0
Dry Density Before Soak (t/m ³) :	20.228
Dry Density After Soak (t/m ³) :	20.228
Moisture Content Before Soak (%) :	20.2
Moisture Content After Soak (%) :	34.1
Density Ratio After Soak (%) :	1140
Field Moisture Content (%) :	14.3
Top Moisture Content - After Penetration (%) :	8.6
Total Moisture Content - After Penetration (%) :	8.6
Soak Condition :	Soaked
Soak Period (days) :	4
Swell (%) :	0.0
CBR Surcharge (kg) :	4.5
Oversize (%) :	
Oversize Material Replaced (%) :	



Site Selection :	
Soil Description :	

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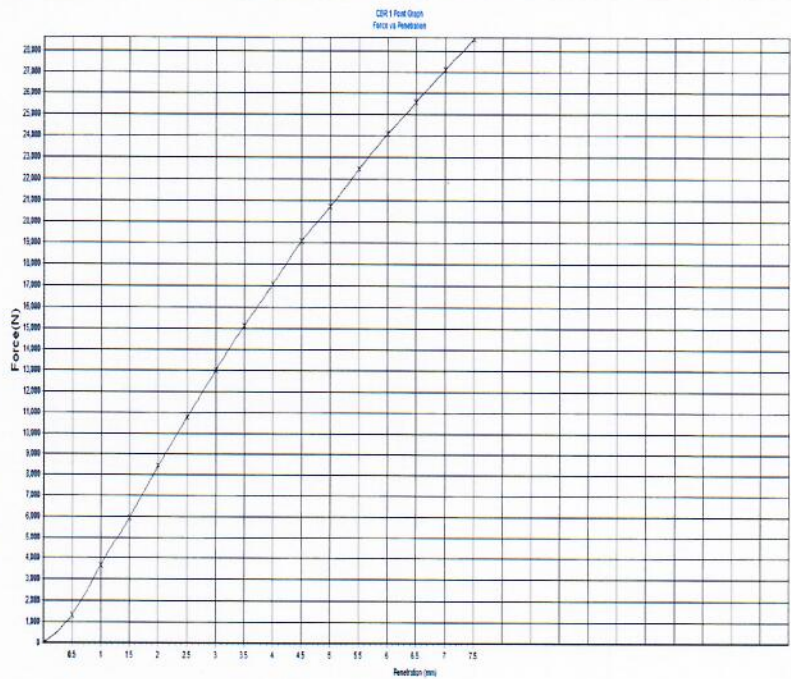
MATERIALS
LABORATORY
PORT VILA

California Bearing Ratio Report (1 Point)

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 54
Address :	Port Vila, Port Vila	Report Date :	27/08/2018
Project Number :	CL/116	Order Number :	
Project Name :	Teouma Bridge	Test Method :	AS1289.6.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1603	SAMPLE LOCATION	
Date Sampled :	13/08/2018	Teouma Bridge Location 2 (Refer to attached map)	
Date Tested :	25/08/2018		
Sampled By :	Client	Lot Number :	
Sampling Method :		Test Number :	
Material Source :			
Material Type :			
Remarks :			

Moisture Method :	AS1289.2.1.1
Maximum Dry Density (t/m ³) :	1.967
Optimum Moisture Content (%) :	11.7
Compactive Effort :	Modified
Nominated Percentage of MDD :	100
Nominated Percentage of OMC :	100
Achieved Percentage of MDD :	1197
Achieved Percentage of OMC :	91.0
Dry Density Before Soak (t/m ³) :	23.539
Dry Density After Soak (t/m ³) :	
Moisture Content Before Soak (%) :	10.6
Moisture Content After Soak (%) :	34.1
Density Ratio After Soak (%) :	
Field Moisture Content (%) :	11.7
Top Moisture Content - After Penetration (%) :	13.0
Total Moisture Content - After Penetration (%) :	
Soak Condition :	Soaked
Soak Period (days) :	4
Swell (%) :	0.0
CBR Surcharge (kg) :	4.5
Oversize (%) :	
Oversize Material Replaced (%) :	



CBR 2.5mm (%) :	90
CBR 5.0mm (%) :	110
CBR Value (%) :	110

Site Selection :	
Soil Description :	

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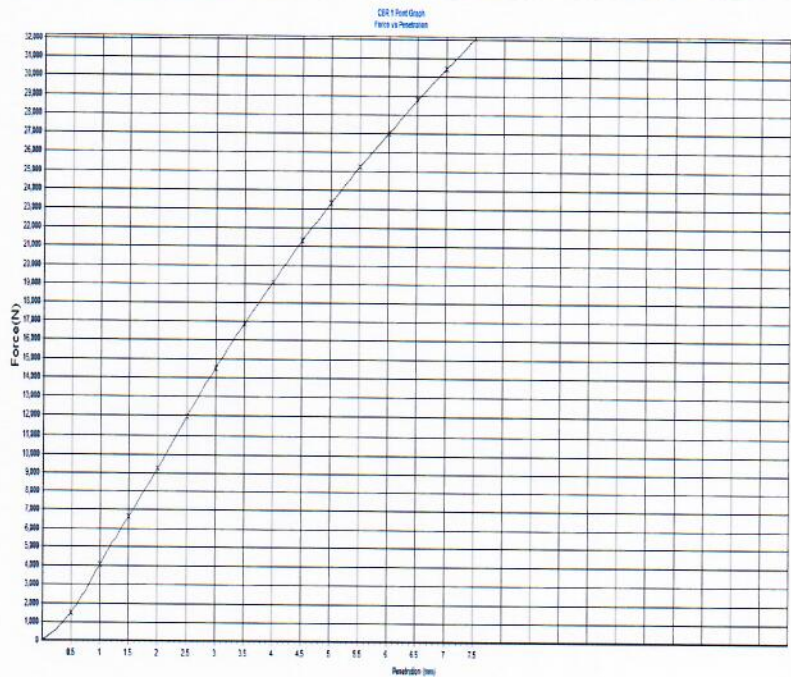
**MATERIALS
LABORATORY
PORT VILA**

California Bearing Ratio Report (1 Point)

Client :	TONKIN + TAYLOR	Report Number :	CL/116 - 55
Address :	Port Vila, Port Vila	Report Date :	27/08/2018
Project Number :	CL/116	Order Number :	
Project Name :	Teouma Bridge	Test Method :	AS1289.6.1.1
Location :	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1604	SAMPLE LOCATION
Date Sampled :	13/08/2018	
Date Tested :	25/08/2018	Teouma Bridge
Sampled By :	Client	Location 3 (Refer to attached map)
Sampling Method :		Lot Number :
Material Source :		Test Number :
Material Type :		
Remarks :		

Moisture Method :	AS1289.2.1.1
Maximum Dry Density (t/m ³) :	2.01
Optimum Moisture Content (%) :	10.9
Compactive Effort :	Modified
Nominated Percentage of MDD :	100
Nominated Percentage of OMC :	100
Achieved Percentage of MDD :	1177
Achieved Percentage of OMC :	104.0
Dry Density Before Soak (t/m ³) :	23.648
Dry Density After Soak (t/m ³) :	23.648
Moisture Content Before Soak (%) :	11.3
Moisture Content After Soak (%) :	12.6
Density Ratio After Soak (%) :	1177
Field Moisture Content (%) :	1222.2
Top Moisture Content - After Penetration (%) :	11.4
Total Moisture Content - After Penetration (%) :	11.9
Soak Condition :	Soaked
Soak Period (days) :	4
Swell (%) :	0.0
CBR Surcharge (kg) :	4.5
Oversize (%) :	
Oversize Material Replaced (%) :	



CBR 2.5mm (%) : 100
 CBR 5.0mm (%) : **120**
CBR Value (%) : 120

Site Selection :	
Soil Description :	

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 Travaux Publics
 GOVERNMENT
 Public Works



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**MATERIALS
LABORATORY
PORT VILA**

Atterberg Limits Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 9
Address :	Port Vila, Port Vila	Report Date :	5/06/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.3.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1363			
Test Number :	#1			
Date Sampled :	17/05/2018			
Date Tested :	17/05/2018			
Sampled By :	Client			
Sampling Method :				
Material Source :	Spycon Quarry			
Material Type :	Base Course			
Sample Location :	Teouma Bridge Spycon Quarry Base Course Efate			
Lot Number :				
Moisture Method :	AS1289.2.1.1			
Sample History :				
Sample Preparation :	Dry			
Notes :				
Mould Length (mm) :	250			
Liquid Limit (%) :	Not Obtainable			
Plastic Limit (%) :	Not Obtainable			
Plasticity Index (%) :	NP (Non Plastic)			
Linear Shrinkage (%) :	1.0			
SPECIFICATION DETAILS				
Specification Number :				
Liquid Limit - Max :				
Plasticity Index - Max :				
Linear Shrinkage - Max :				
Remarks :	-			

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LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 4
Address :	Port Vila, Port Vila	Report Date :	22/05/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1363			
Test Number :	#1			
Sampling Method :				
Date Sampled :	17/05/2018			
Date Tested :	17/05/2018			
Material Type :	Base Course			
Material Source :	Spycon Quarry			
Lot Number :				
Sample Location :	Teouma Bridge Spycon Quarry Base Course Efate			
Oven Temperature (°C) :	105-110			
Soil Description :				
Moisture Content (%) :	12.4			
Remarks :				

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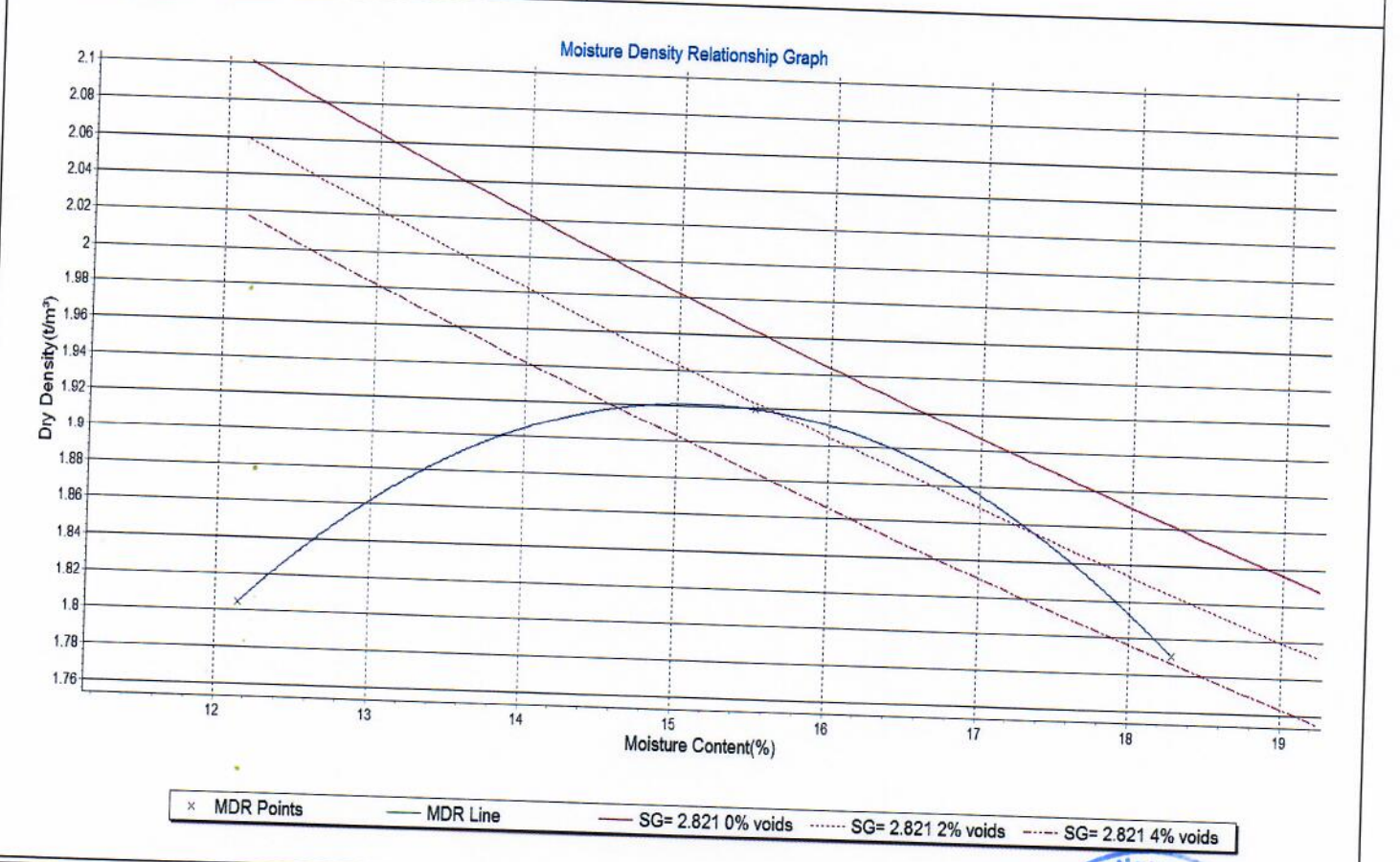
**MATERIALS
LABORATORY
PORT VILA**


Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 1/1
Address :	Port Vila, Port Vila	Report Date :	22/05/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1363	SAMPLE LOCATION	
Sampling Method :		Teouma Bridge	
Sampled By :	Client	Spycon Quarry	
Date Sampled :	17/05/2018	Base Course	
Date Tested :	17/05/2018	Efate	
Material Type :	Base Course	Test Number :	#1
Material Source :	Spycon Quarry	Lot Number :	
Remarks :		Moisture Method :	AS1289.2.1.4

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m ³) :	1.93
Oversize Dry (%) :		Optimum Moisture Content (%) :	15.5
Oversize Density (t/m ³) :			



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**MATERIALS
LABORATORY
PORT VILA**

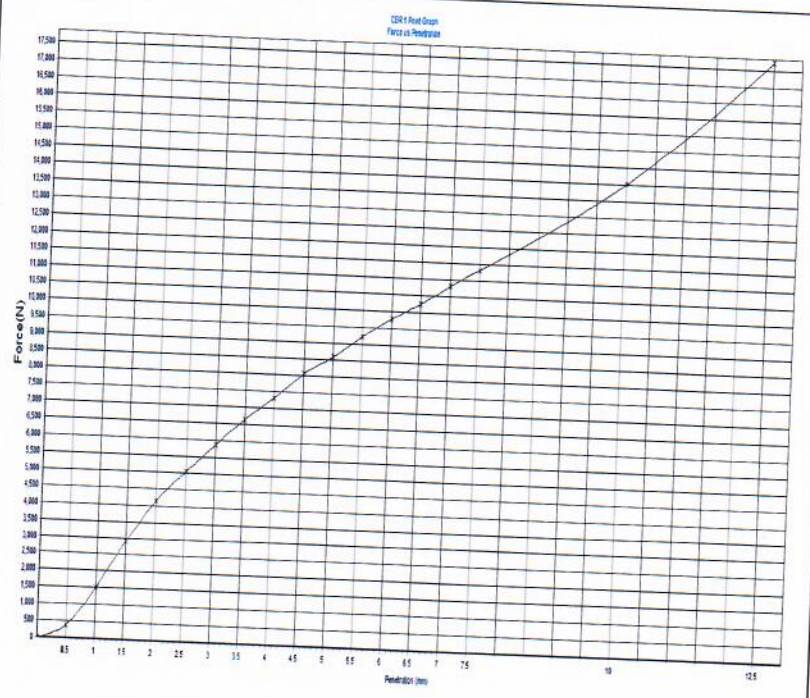
California Bearing Ratio Report (1 Point)

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 7
Address :	Port Vila, Port Vila	Report Date :	5/06/2018
Project Number :	CL/116	Order Number :	
Project Name :	Teouma Bridge	Test Method :	AS1289.6.1.1
Location :	Efate , Port Vila		

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Sample Number :	S-1363	SAMPLE LOCATION	
Date Sampled :	17/05/2018	Teouma Bridge	
Date Tested :	17/05/2018	Spycon Quarry	
Sampled By :	Client	Base Course	
Sampling Method :		Efate	
Material Source :	Spycon Quarry	Lot Number :	
Material Type :	Base Course	Test Number :	#1
Remarks :			

Moisture Method :	AS1289.2.1.1
Maximum Dry Density (t/m ³) :	1.921
Optimum Moisture Content (%) :	15.1
Compactive Effort :	Standard
Nominated Percentage of MDD :	100
Nominated Percentage of OMC :	100
Achieved Percentage of MDD :	94
Achieved Percentage of OMC :	73.0
Dry Density Before Soak (t/m ³) :	1.8
Dry Density After Soak (t/m ³) :	1.8
Moisture Content Before Soak (%) :	11.0
Moisture Content After Soak (%) :	15.6
Density Ratio After Soak (%) :	94
Field Moisture Content (%) :	8.9
Top Moisture Content - After Penetration (%) :	14.7
Total Moisture Content - After Penetration (%) :	14.7
Soak Condition :	Soaked
Soak Period (days) :	4
Swell (%) :	0.0
CBR Surcharge (kg) :	4.5
Oversize (%) :	
Oversize Material Replaced (%) :	



CBR 2.5mm (%) :	40
CBR 5.0mm (%) :	45
CBR Value (%) :	45

Site Selection :	
Soil Description :	

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Document Code
RF39-11



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**MATERIALS
LABORATORY
PORT VILA**

Atterberg Limits Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 10
Address :	Port Vila, Port Vila	Report Date :	5/06/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.3.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1364		
Test Number :	#2		
Date Sampled :	17/05/2018		
Date Tested :	17/05/2018		
Sampled By :	Client		
Sampling Method :			
Material Source :	Spycon Quarry		
Material Type :	Bulk		
Sample Location :	Teouma Bridge Spycon Quarry Bulk Efate		
Lot Number :			
Moisture Method :	AS1289.2.1.1		
Sample History :			
Sample Preparation :	Dry		
Notes :			
Mould Length (mm) :	250		
Liquid Limit (%) :	Not Obtainable		
Plastic Limit (%) :	Not Obtainable		
Plasticity Index (%) :	NP (Non Plastic)		
Linear Shrinkage (%) :	1.5		
SPECIFICATION DETAILS			
Specification Number :			
Liquid Limit - Max :			
Plasticity Index - Max :			
Linear Shrinkage - Max :			
Remarks :	-		

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**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 11
Address :	Port Vila, Port Vila	Report Date :	5/06/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.4
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1364		
Test Number :	#2		
Sampling Method :			
Date Sampled :	17/05/2018		
Date Tested :	17/05/2018		
Material Type :	Bulk		
Material Source :	Spycon Quarry		
Lot Number :			
Sample Location :	Teouma Bridge Spycon Quarry Bulk Efate		
Oven Temperature (°C) :	105-110		
Soil Description :			
Moisture Content (%) :	11.7		
Remarks :			

	APPROVED SIGNATORY  Document Code RF120-6
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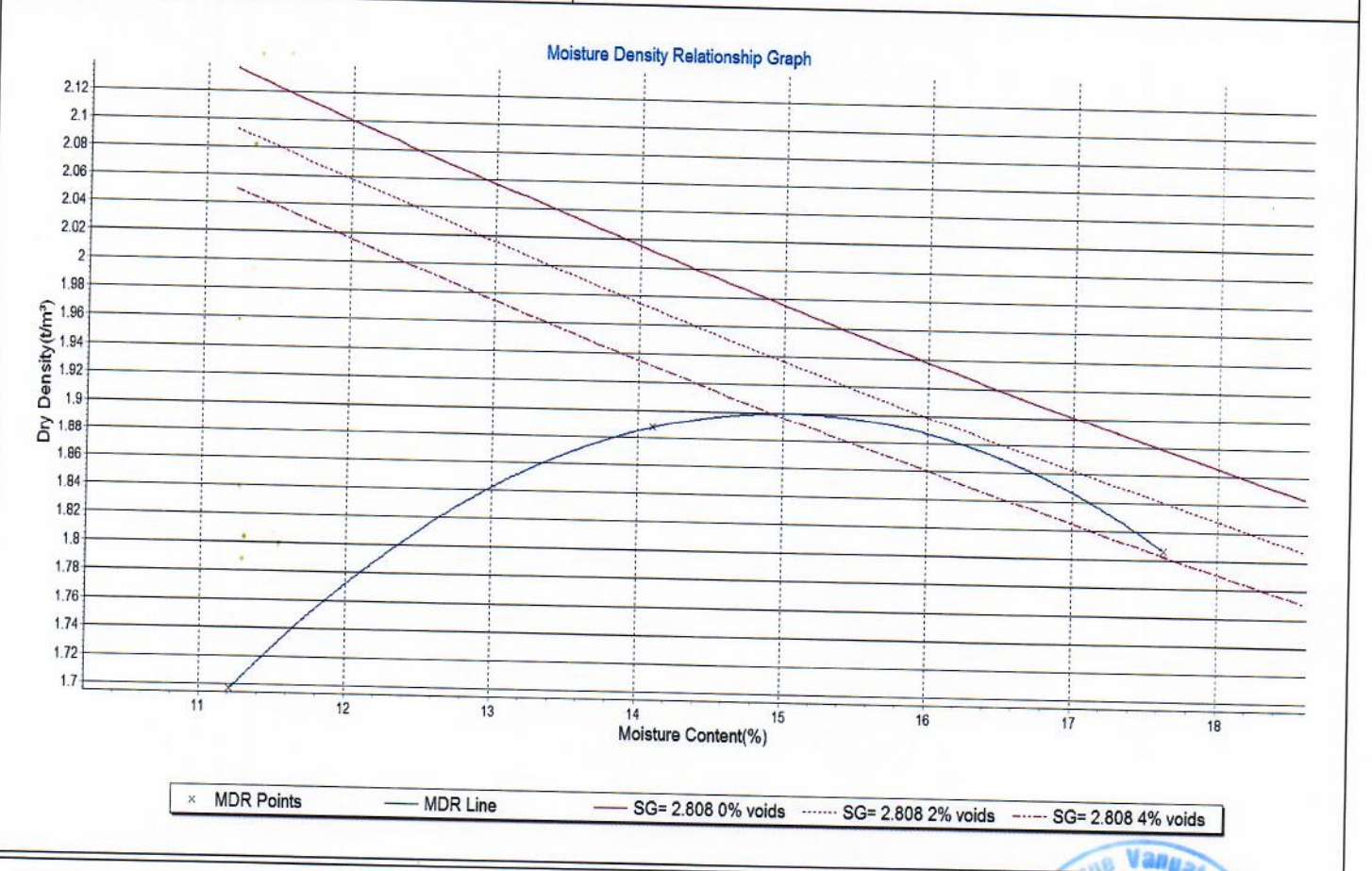
**MATERIALS
LABORATORY
PORT VILA**


Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 2/1
Address :	Port Vila, Port Vila	Report Date :	22/05/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1364	SAMPLE LOCATION	
Sampling Method :		Teouma Bridge	
Sampled By :	Client	Spycon Quarry	
Date Sampled :	17/05/2018	Bulk	
Date Tested :	17/05/2018	Efate	
Material Type :	Bulk	Test Number :	#2
Material Source :	Spycon Quarry	Lot Number :	
Remarks :		Moisture Method :	AS1289.2.1.4

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m ³) :	1.9
Oversize Dry (%) :		Optimum Moisture Content (%) :	15.5
Oversize Density (t/m ³) :			



	<p>APPROVED SIGNATORY</p>  <p>Document Code RF124-7</p>
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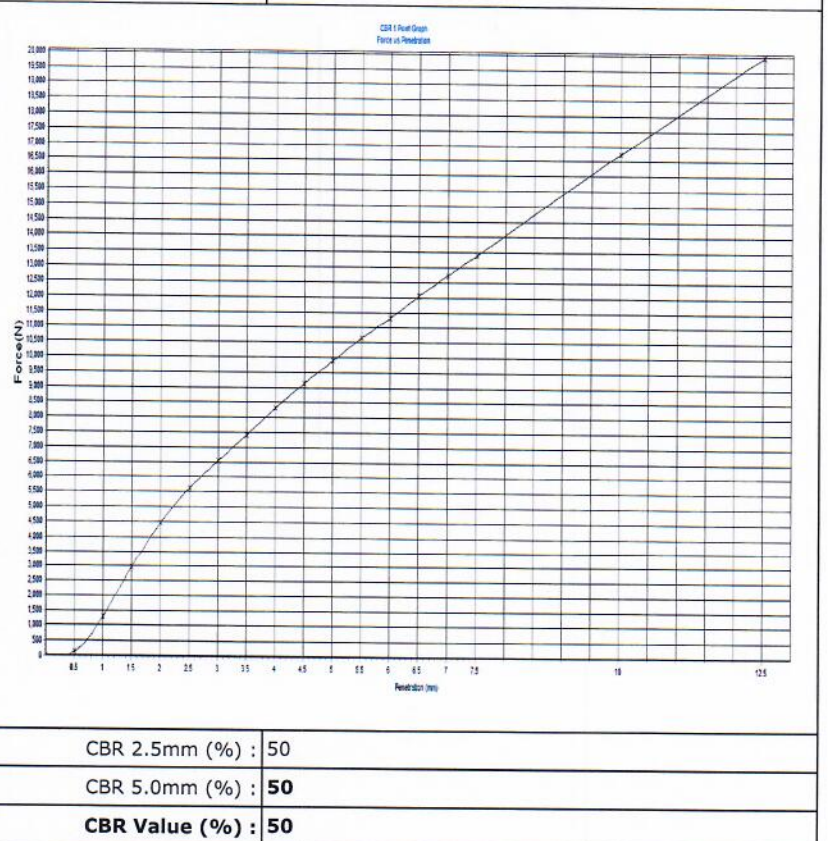
MATERIALS
LABORATORY
PORT VILA

California Bearing Ratio Report (1 Point)


Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 8
Address :	Port Vila, Port Vila	Report Date :	5/06/2018
Project Number :	CL/116	Order Number :	
Project Name :	Teouma Bridge	Test Method :	AS1289.6.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1364	SAMPLE LOCATION	
Date Sampled :	17/05/2018	Teouma Bridge	
Date Tested :	17/05/2018	Spycon Quarry	
Sampled By :	Client	Bulk	
Sampling Method :		Efate	
Material Source :	Spycon Quarry	Lot Number :	
Material Type :	Bulk	Test Number :	#2
Remarks :			

Moisture Method :	AS1289.2.1.1
Maximum Dry Density (t/m ³) :	1.9
Optimum Moisture Content (%) :	15.0
Compactive Effort :	Standard
Nominated Percentage of MDD :	100
Nominated Percentage of OMC :	100
Achieved Percentage of MDD :	95
Achieved Percentage of OMC :	75.0
Dry Density Before Soak (t/m ³) :	1.81
Dry Density After Soak (t/m ³) :	1.81
Moisture Content Before Soak (%) :	11.3
Moisture Content After Soak (%) :	15.5
Density Ratio After Soak (%) :	95
Field Moisture Content (%) :	6.8
Top Moisture Content - After Penetration (%) :	14.7
Total Moisture Content - After Penetration (%) :	32.3
Soak Condition :	Soaked
Soak Period (days) :	4
Swell (%) :	0.0
CBR Surcharge (kg) :	4.5
Oversize (%) :	
Oversize Material Replaced (%) :	



Site Selection :	
Soil Description :	

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MATERIALS
LABORATORY
PORT VILA

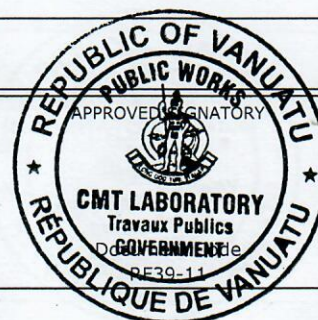
California Bearing Ratio Report (1 Point)

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 61/1
Address :	Port Vila, Port Vila	Report Date :	18/10/2018
Project Number :	CL/116	Order Number :	
Project Name :	Teouma Bridge	Test Method :	AS1289.6.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1707	SAMPLE LOCATION	
Date Sampled :	3/10/2018	0-40mm Basecourse Spycon Quarry Sample #1	
Date Tested :	15/10/2018		
Sampled By :	Jeremiah Bakeo		
Sampling Method :	AS1141.3.1	Lot Number :	NA
Material Source :	Spycon Quarry	Test Number :	NA
Material Type :	0-40mm Basecourse	Remarks :	

Moisture Method :	AS1289.2.1.1		
Maximum Dry Density (t/m ³) :	1.962		
Optimum Moisture Content (%) :	13.8		
Compactive Effort :	Modified		
Nominated Percentage of MDD :	100		
Nominated Percentage of OMC :	100		
Achieved Percentage of MDD :	97		
Achieved Percentage of OMC :	96.0		
Dry Density Before Soak (t/m ³) :	1.91		
Dry Density After Soak (t/m ³) :	1.91		
Moisture Content Before Soak (%) :	13.3		
Moisture Content After Soak (%) :	13.8		
Density Ratio After Soak (%) :	97		
Field Moisture Content (%) :	10.9		
Top Moisture Content - After Penetration (%) :	13.0		
Total Moisture Content - After Penetration (%) :	13.2		
Soak Condition :	Soaked		
Soak Period (days) :	7		
Swell (%) :	0.0		
CBR Surcharge (kg) :	4.5	CBR 2.5mm (%) :	45
Oversize (%) :	11.6	CBR 5.0mm (%) :	60
Oversize Material Replaced (%) :		CBR Value (%) :	60

Site Selection :	
Soil Description :	Sandy GRAVEL: f-c gravel, f-m sand





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**MATERIALS
LABORATORY
PORT VILA**

Moisture Content Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 52
Address :	Port Vila, Port Vila	Report Date :	16/08/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.2.1.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1602	S-1603	S-1604	
Test Number :				
Sampling Method :				
Date Sampled :	13/08/2018	13/08/2018	13/08/2018	
Date Tested :	14/08/2018	14/08/2018	14/08/2018	
Material Type :				
Material Source :				
Lot Number :				
Sample Location :	Teouma Bridge Location 1 (Refer to attached map)	Teouma Bridge Location 2 (Refer to attached map)	Teouma Bridge Location 3 (Refer to attached map)	
Oven Temperature (°C) :				
Soil Description :				
Moisture Content (%) :	14.3	11.7	10.4	
Remarks :				

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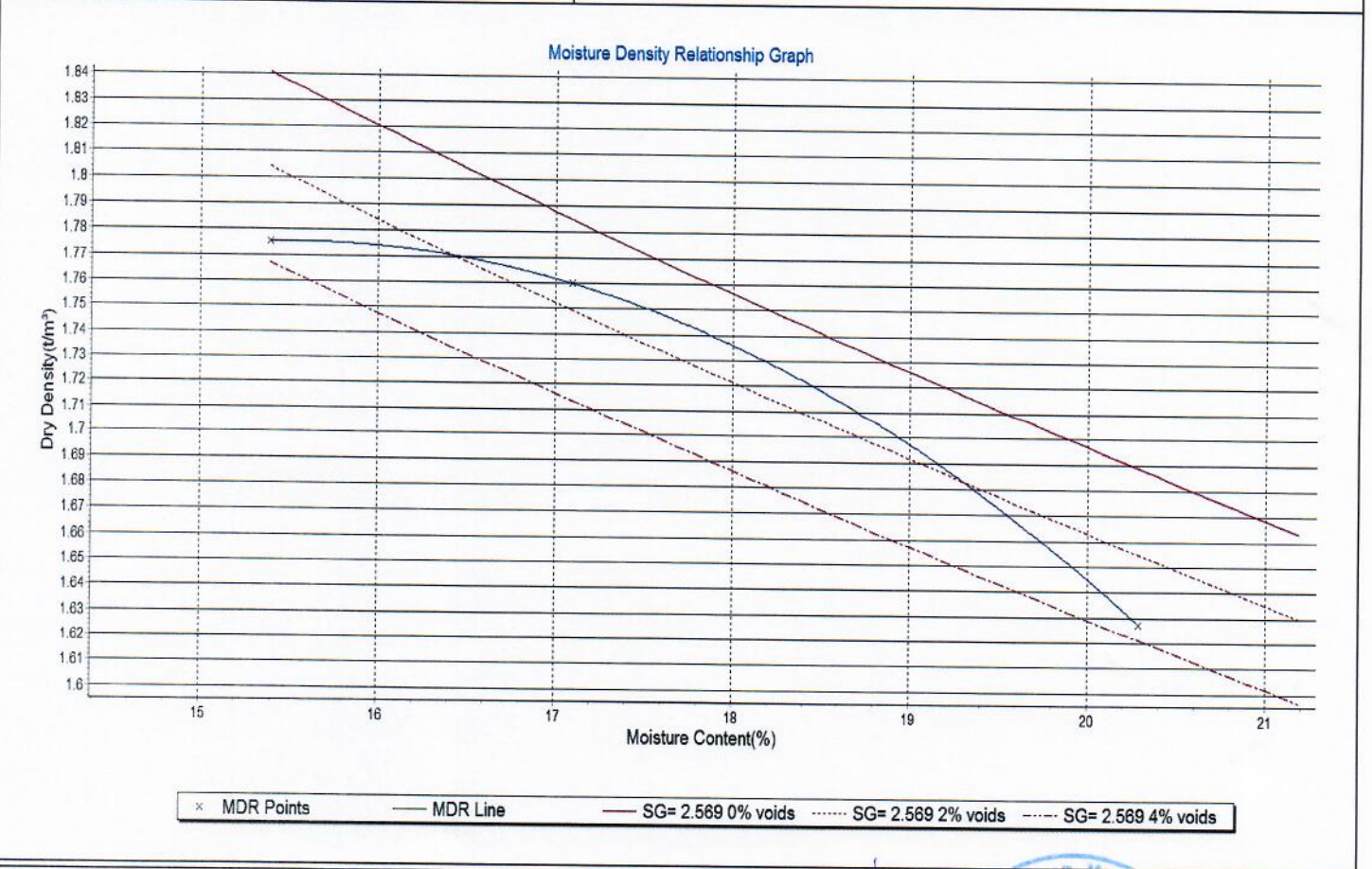
**MATERIALS
LABORATORY
PORT VILA**

Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 49/1
Address :	Port Vila, Port Vila	Report Date :	16/08/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.2.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1602	SAMPLE LOCATION	
Sampling Method :		Teouma Bridge	
Sampled By :	Client	Location 1 (Refer to attached map)	
Date Sampled :	13/08/2018	Test Number :	
Date Tested :	14/08/2018	Lot Number :	
Material Type :		Moisture Method :	
Material Source :		AS1289.2.1.1	
Remarks :			

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m³) :	1.78
Oversize Dry (%) :		Optimum Moisture Content (%) :	15.5
Oversize Density (t/m ³) :			



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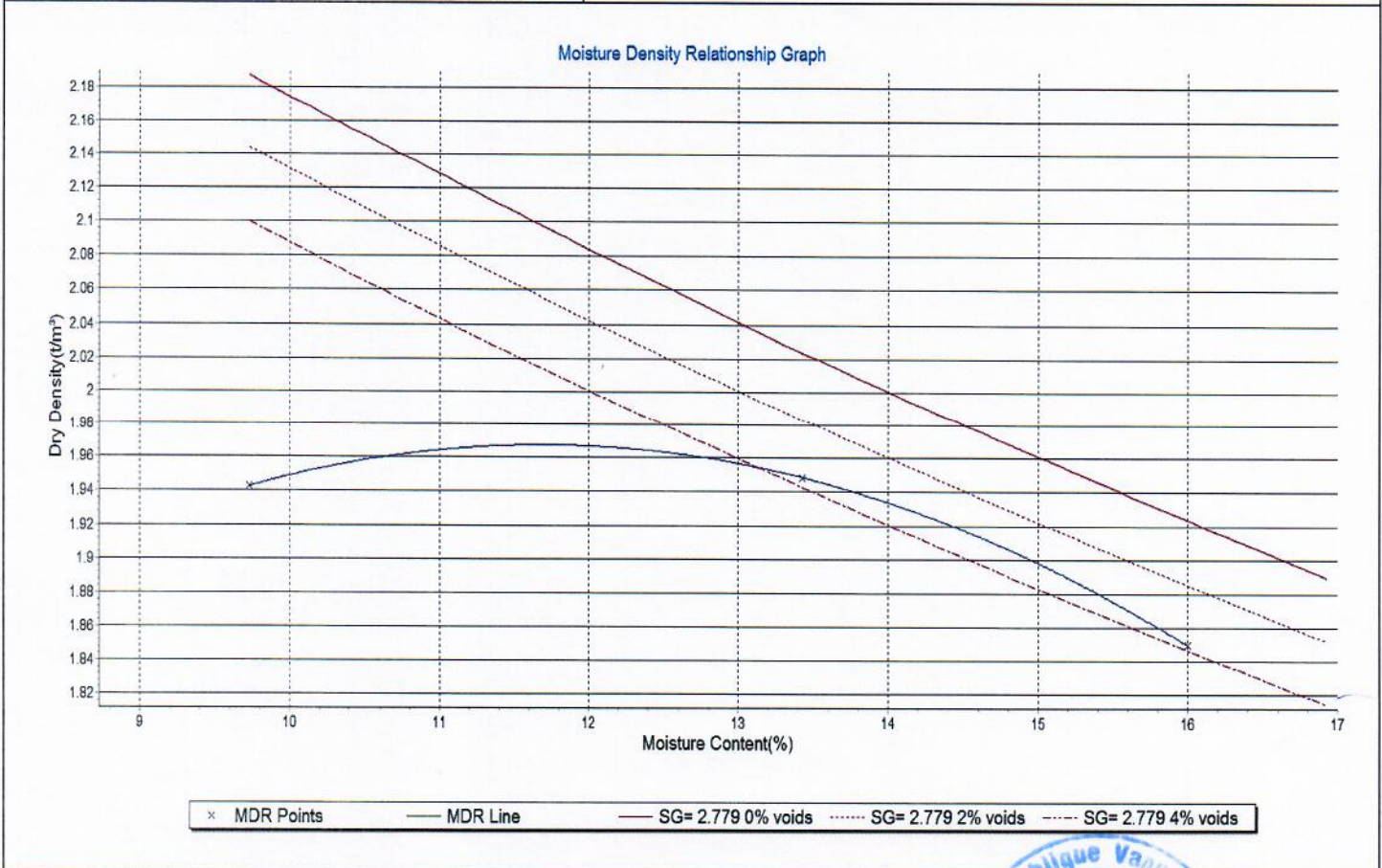
MATERIALS
LABORATORY
PORT VILA

Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 50/1
Address :	Port Vila, Port Vila	Report Date :	16/08/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.2.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1603	SAMPLE LOCATION	
Sampling Method :			
Sampled By :	Client	Teouma Bridge	
Date Sampled :	13/08/2018	Location 2 (Refer to attached map)	
Date Tested :	14/08/2018		
Material Type :		Test Number :	
Material Source :		Lot Number :	
Remarks :		Moisture Method : AS1289.2.1.1	

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m ³) :	1.97
Oversize Dry (%) :		Optimum Moisture Content (%) :	11.5
Oversize Density (t/m ³) :			



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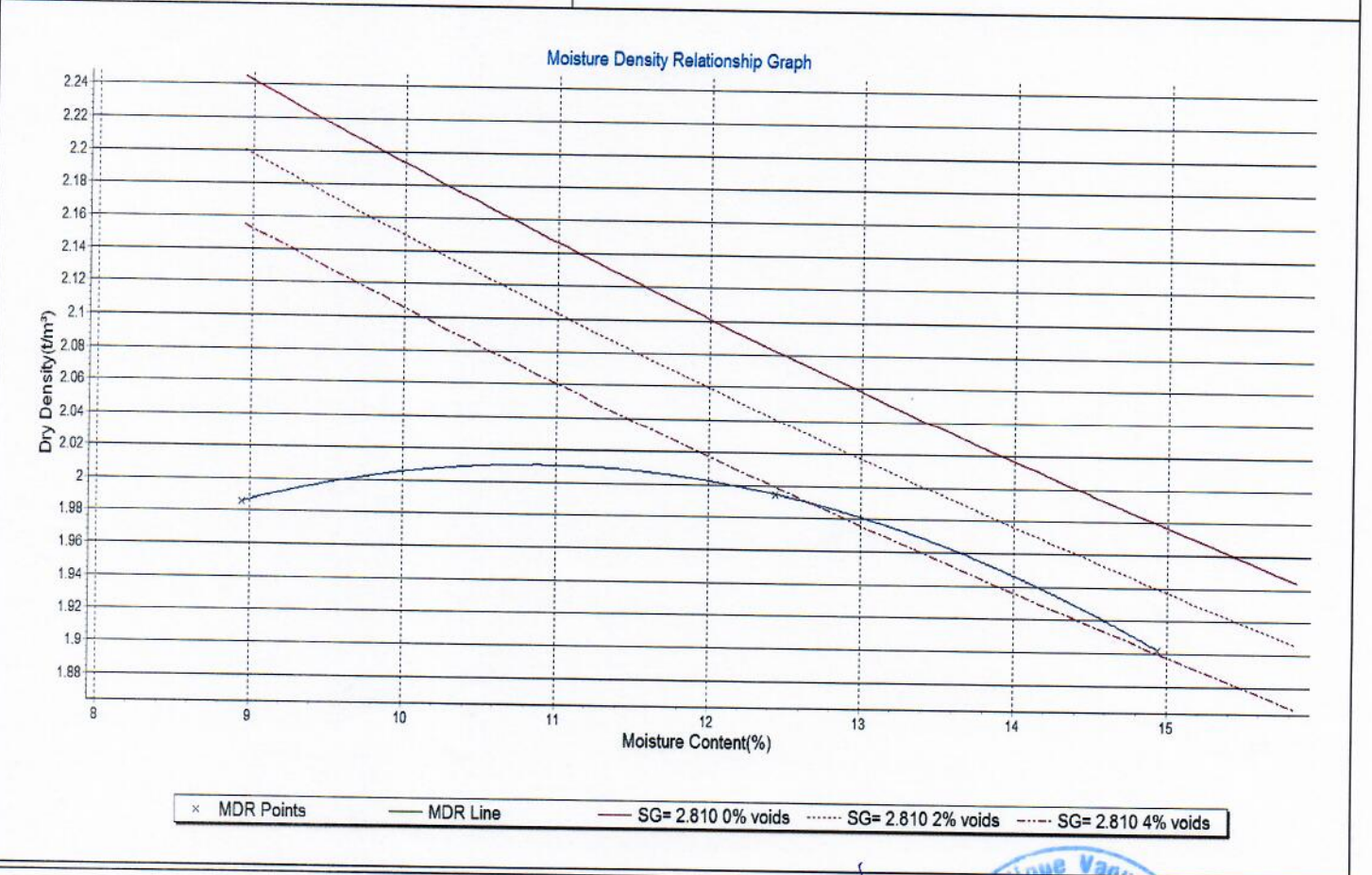
MATERIALS
LABORATORY
PORT VILA

Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 51/1
Address :	Port Vila, Port Vila	Report Date :	16/08/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.2.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1604	SAMPLE LOCATION	
Sampling Method :		Teouma Bridge	
Sampled By :	Client	Location 3 (Refer to attached map)	
Date Sampled :	13/08/2018	Test Number :	
Date Tested :	14/08/2018	Lot Number :	
Material Type :		Moisture Method :	
Material Source :		AS1289.2.1.1	
Remarks :			

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m³) :	2.01
Oversize Dry (%) :		Optimum Moisture Content (%) :	11
Oversize Density (t/m ³) :			



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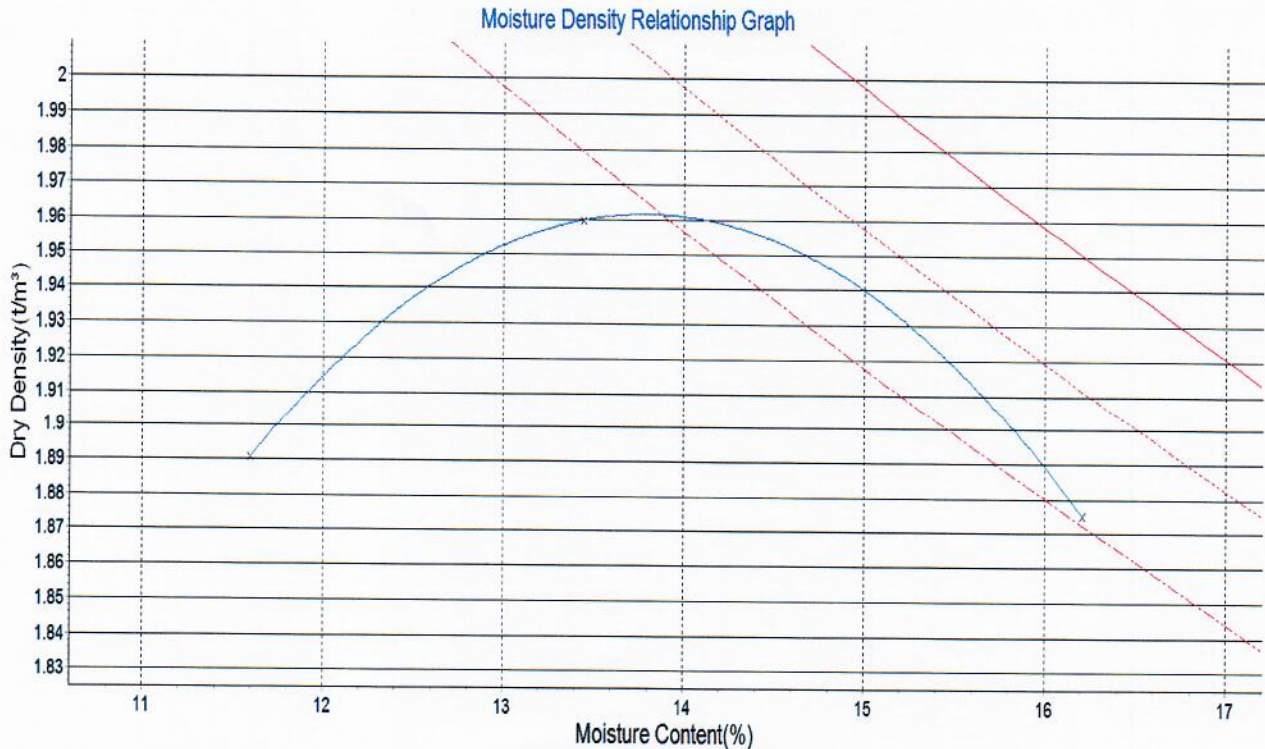
**MATERIALS
LABORATORY
PORT VILA**

Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number:	CL/116 - 59/1
Address :	Port Vila, Port Vila	Report Date :	18/10/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.2.1
Location:	Efate , Port Vila	Page 1 of 1	

Sample Number :	S-1707	SAMPLE LOCATION	
Sampling Method :	AS1141.3.1	0-40mm Basecourse	
Sampled By :	Jeremiah Bakeo	Spycon Quarry	
Date Sampled :	3/10/2018	Sample #1	
Date Tested :	8/10/2018	Test Number :	NA
Material Type :	0-40mm Basecourse	Lot Number :	NA
Material Source :	Spycon Quarry	Moisture Method :	AS1289.2.1.1
Remarks :			

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m³) :	1.96
Oversize Dry (%) :		Optimum Moisture Content (%) :	14
Oversize Density (t/m ³) :			



x MDR Points
 — MDR Line
 — SG= 2.852 0% voids
 - - - SG= 2.852 2% voids
 - - - SG= 2.852 4% voids

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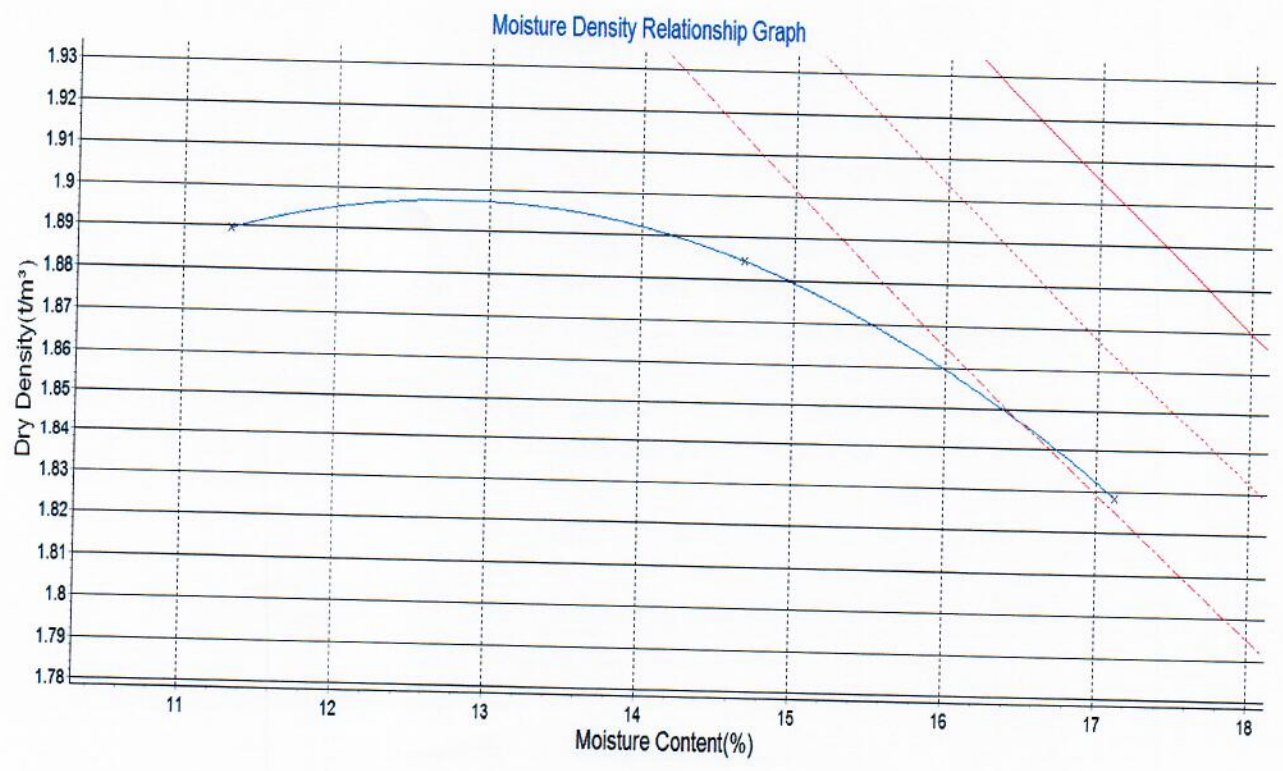
**MATERIALS
 LABORATORY
 PORT VILA**

Moisture Density Relationship Report

Client :	TONKIN + TAYLOR	Report Number :	CL/116 - 60/1
Address :	Port Vila, Port Vila	Report Date :	18/10/2018
Project Name :	Teouma Bridge	Order Number :	
Project Number :	CL/116	Test Method :	AS1289.5.2.1
Location :	Efate, Port Vila	Page 1 of 1	

Sample Number :	S-1708	SAMPLE LOCATION	
Sampling Method :	AS1141.3.1	0-40mm Basecourse	
Sampled By :	Jeremiah Bakeo	Spycon Quarry	
Date Sampled :	3/10/2018	Sample #2	
Date Tested :	8/10/2018	Test Number :	NA
Material Type :	0-40mm Basecourse	Lot Number :	NA
Material Source :	Spycon Quarry	Moisture Method :	AS1289.2.1.1
Remarks :			

Maximum Size (mm) :	19.0	Maximum Dry Density (t/m³) :	1.9
Oversize Dry (%) :		Optimum Moisture Content (%) :	13
Oversize Density (t/m ³) :			



× MDR Points — MDR Line - - - SG= 2.819 0% voids - - - SG= 2.819 2% voids - - - SG= 2.819 4% voids

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