

Material Test Report



Ground Science South West

Geotechnical & Environmental Consultants

Report Number: GSSW576-18A
Issue Number: 1
Date Issued: 26/08/2020
Client: AEROLITE QUARRIES PTY LTD
 325 Old Boundary Road , ANAKIE VIC 3115
Contact: HAYDEN EDGAR
Project Number: GSSW576
Project Name: PRODUCT SUITABILITY TESTING
Project Location: ANAKIE
Work Request: 7559
Sample Number: 576-S29
Date Sampled: 12/08/2020
Dates Tested: 13/08/2020 - 20/08/2020
Sampling Method: Sampled by Client - Tested as Received
The results apply to the sample as received
Specification: 20mm Class 4 Crushed Rock as per RC 500.02
Sample Location: Stockpile
Material: B Grade Basalt
Material Source: Aerolite Quarries Anakie

Ground Science South West Pty Ltd
 17 Dowsett Street South Geelong Vic 3220
 Phone: (03) 5282 1566
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Accredited for compliance with ISO/IEC 17025 - Testing

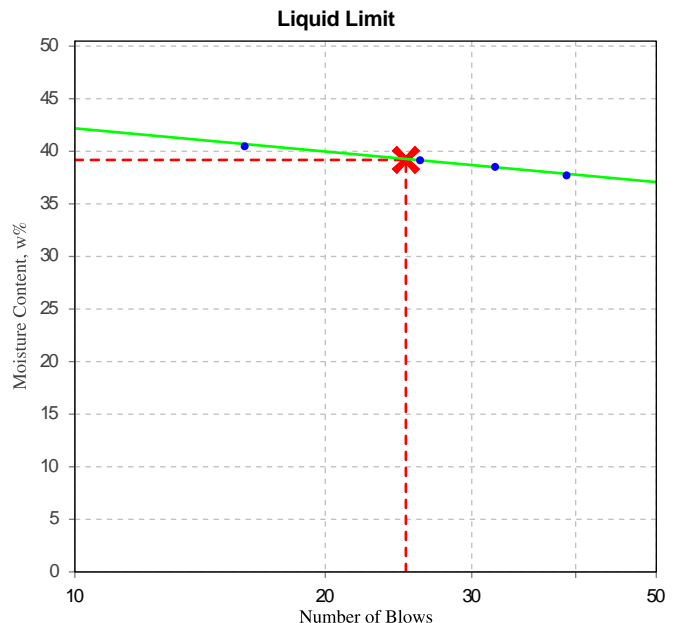
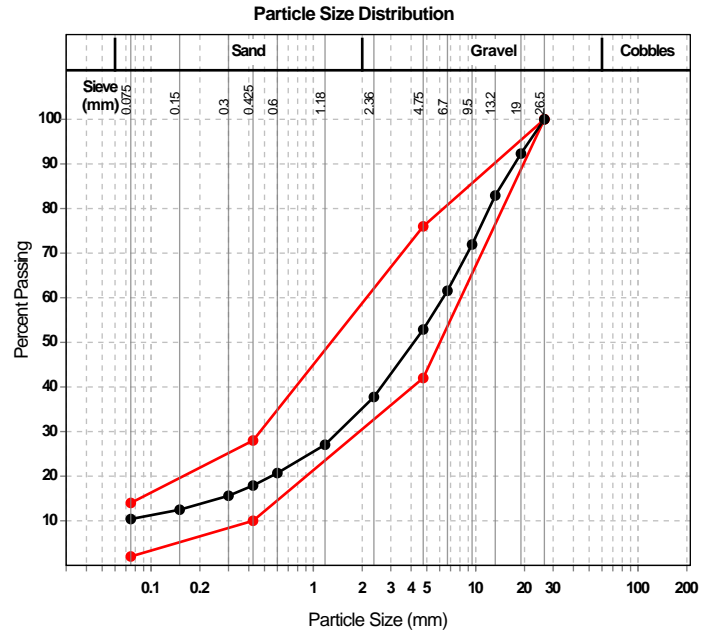
Approved Signatory: Chris Mamalis
 Laboratory Manager
 NATA Accredited Laboratory Number: 20109

Particle Size Distribution (AS1141.11.1)				
Sample Washing	Sample was Washed			
Sieve	Passed %	Passing Limits	Retained %	Retained Limits
26.5 mm	100	100 100	0	
19 mm	92		8	
13.2 mm	83		9	
9.5 mm	72		11	
6.7 mm	62		10	
4.75 mm	53	42 76	9	
2.36 mm	38		15	
1.18 mm	27		11	
0.6 mm	21		6	
0.425 mm	18	10 28	3	
0.3 mm	16		2	
0.15 mm	12		3	
0.075 mm	10	2 14	2	

Moisture Content (1289.2.1.1)	
Moisture Content (%)	11.7

Atterberg Limit (AS1289 3.1.1 & 3.2.1 & 3.3.1)		Min	Max
Sample History	Oven Dried		
Preparation Method	Dry Sieve		
Liquid Limit (%)	39	0	40
Plastic Limit (%)	28		
Plasticity Index (%)	11	0	20

Linear Shrinkage (AS1289 3.4.1)		Min	Max
Moisture Condition Determined By	AS 1289.3.1.1		
Linear Shrinkage (%)	5.0		
Cracking Crumbling Curling	Cracking		



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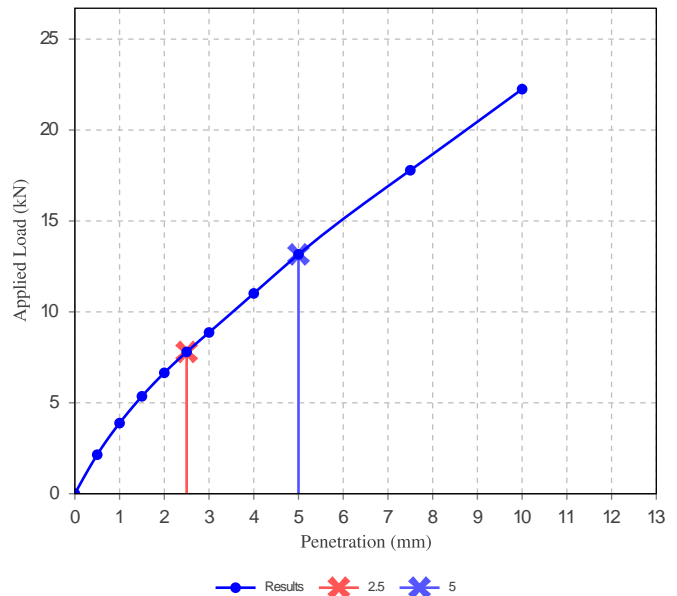
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California Bearing Ratio (AS 1289 6.1.1 & 2.1.1)		Min	Max
CBR taken at	5 mm		
CBR %	70	20	
Method of Compactive Effort	Modified		
Method used to Determine MDD	AS 1289 5.2.1 & 2.1.1		
Method used to Determine Plasticity	Liquid Limit Tested		
Maximum Dry Density (t/m ³)	1.86		
Optimum Moisture Content (%)	14.0		
Laboratory Density Ratio (%)	98.0		
Laboratory Moisture Ratio (%)	100.0		
Dry Density after Soaking (t/m ³)	1.82		
Field Moisture Content (%)			
Moisture Content at Placement (%)	13.9		
Moisture Content Top 30mm (%)	18.6		
Moisture Content Rest of Sample (%)	16.1		
Mass Surcharge (kg)	4.5		
Soaking Period (days)	4		
Curing Hours	168.6		
Swell (%)	0.0		
Oversize Material (mm)	19		
Oversize Material Included	Excluded		
Oversize Material (%)	6.9		
Sample remoulded as per Vic Roads Code of Practice RC 500.16			

Dry Density - Moisture Relationship (AS 1289 5.2.1 & 2.1.1)	
Mould Type	1 LITRE MOULD A
Compaction	Modified
Maximum Dry Density (t/m ³)	1.86
Optimum Moisture Content (%)	14.0
Oversize Sieve (mm)	19
Oversize Material Wet (%)	7
Method used to Determine Plasticity	Liquid Limit Tested
Curing Hours	66.5

Moisture Content (AS 1289 2.1.1)	
Moisture Content (%)	12.0

California Bearing Ratio



Moisture Density Relationship

