

Laboratory Reference: CAN12W3493

ADHESION AGENT TEST REPORT

ATTENTION:
Ray Georgey

CLIENT: Otech Australia
 CLIENT REFERENCE: 0.5pph with Holcim Hastings - Mere Road Quarry
 ADHESION AGENT: Otech AGGBIND-75[®] liquid adhesion agent
 ADHESION AGENT SOURCE: Supplied by Fulton Hogan Canterbury Bitumen Plant in May 2011
 AGGREGATE SAMPLED BY: Trevor in August 2012
 TEST METHOD USED: MWD B301-89T
 TESTED BY: Kim Pratt on 5/09/2012

RESULTS:

AGGREGATE SOURCE	AGENT QUANTITY (PPH BY VOLUME)	TEST RESULT	TEST CRITERION
Holcim Hastings Mere Road Quarry	0.5	97 Spec : 80 min	0.71 Spec : 2 max

NOTE: *TNZ M/13: 1989 - SPECIFICATION FOR ADHESION AGENTS* states that the sieved chip sample shall comply with the requirements of ALD/AGD ratio and ALD for grade 3 chip specified in TNZ M/6. This has not been verified for this aggregate.

Test performed using: Grade 3 chip of predominantly greywacke origin
 Chip sieved between 13.2 & 9.5mm sieves and washed in deionised water
 180/200 Penetration Grade Bitumen (Lab Ref. CAN12B-0060)
 Adhesion agent set up time was 2.5 hours
 Test temperature of 25°C

Report Issued By: Kim Pratt on 5/09/2012

Report Checked By:


 Bitumen Laboratory Supervisor

Disclaimer: These test results apply to the samples as received by the Laboratory. No liability will be accepted by the Laboratory for any misrepresentation with respect to the sampling of material for testing and/or the use of these test results.

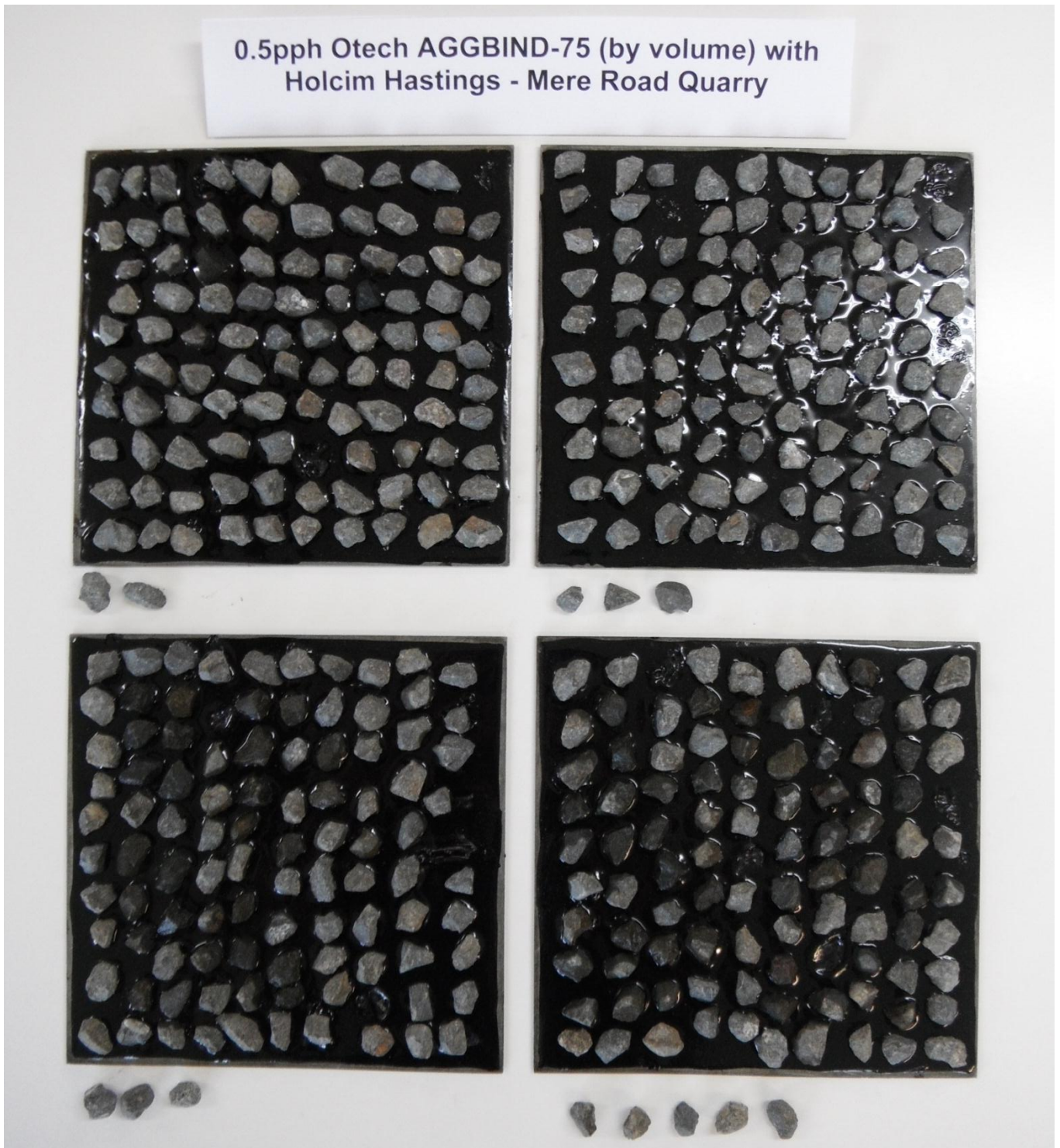


Figure 1. Photograph showing test plates with 180/200 bitumen and 0.5pph Otech AGGBIND-75[®] (by volume) after test was performed. Holcim Hastings - Mere Road Quarry Grade 3 chip that was dislodged is arranged below the plates.