

Laboratory Reference: CAN12W1227

ADHESION AGENT TEST REPORT

ATTENTION:**Ray Georgey**

CLIENT: Otech Australia
CLIENT REFERENCE: 0.5pph with Millbrook, Whangaripo
ADHESION AGENT: Otech AGGBIND-75[®] liquid adhesion agent
ADHESION AGENT SOURCE: Supplied by Fulton Hogan Canterbury Bitumen Plant in May 2011
AGGREGATE SAMPLED BY: Chris Sinclair on 13 March 2012
TEST METHOD USED: MWD B301-89T
TESTED BY: Rachel Smith & Kim Pratt on 27/03/2012

RESULTS:

AGGREGATE SOURCE	AGENT QUANTITY (PPH BY VOLUME)	TEST RESULT	TEST CRITERION
Wharehine Millbrook Quarry - Whangaripo Pakiri Road, Wellsford	0.5	98 Spec : 80 min	0.37 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 28/03/2012

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.

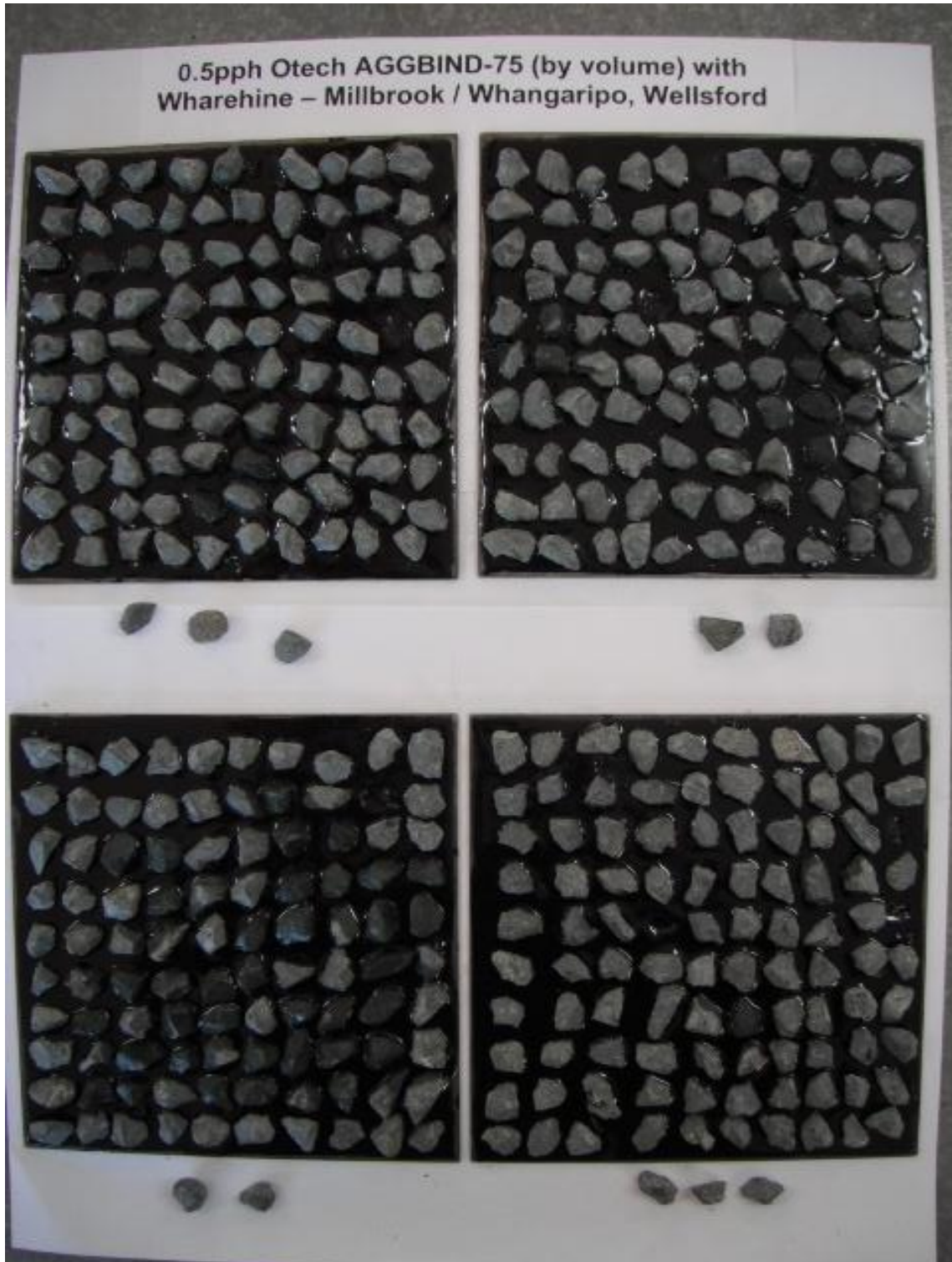


Figure 1. Photograph showing test plates with 180/200 bitumen and 0.5pph Otech AGGBIND-75® (by volume) after test was performed. Grade 3 Wharehine Millbrook Quarry / Whangaripo chip that was dislodged is arranged below the plates.