



CIVIL GEOTECHNICAL SERVICES
ABN 26 474 013 724
PO Box 678 Croydon Vic 3136
Telephone: 9723 0744 Facsimile: 9723 0799

16th January 2020

Our Reference: 19255:NB638

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
RATHDOWNE – STAGE 5 (WOLLERT)

Please find attached our Report No's 19255/R001 & 19255/R002 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density testing was performed in May 2019.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The site inspection and testing was performed by experienced geotechnicians from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the reported allotments by Winslow Constructors during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1 (1 of 2)

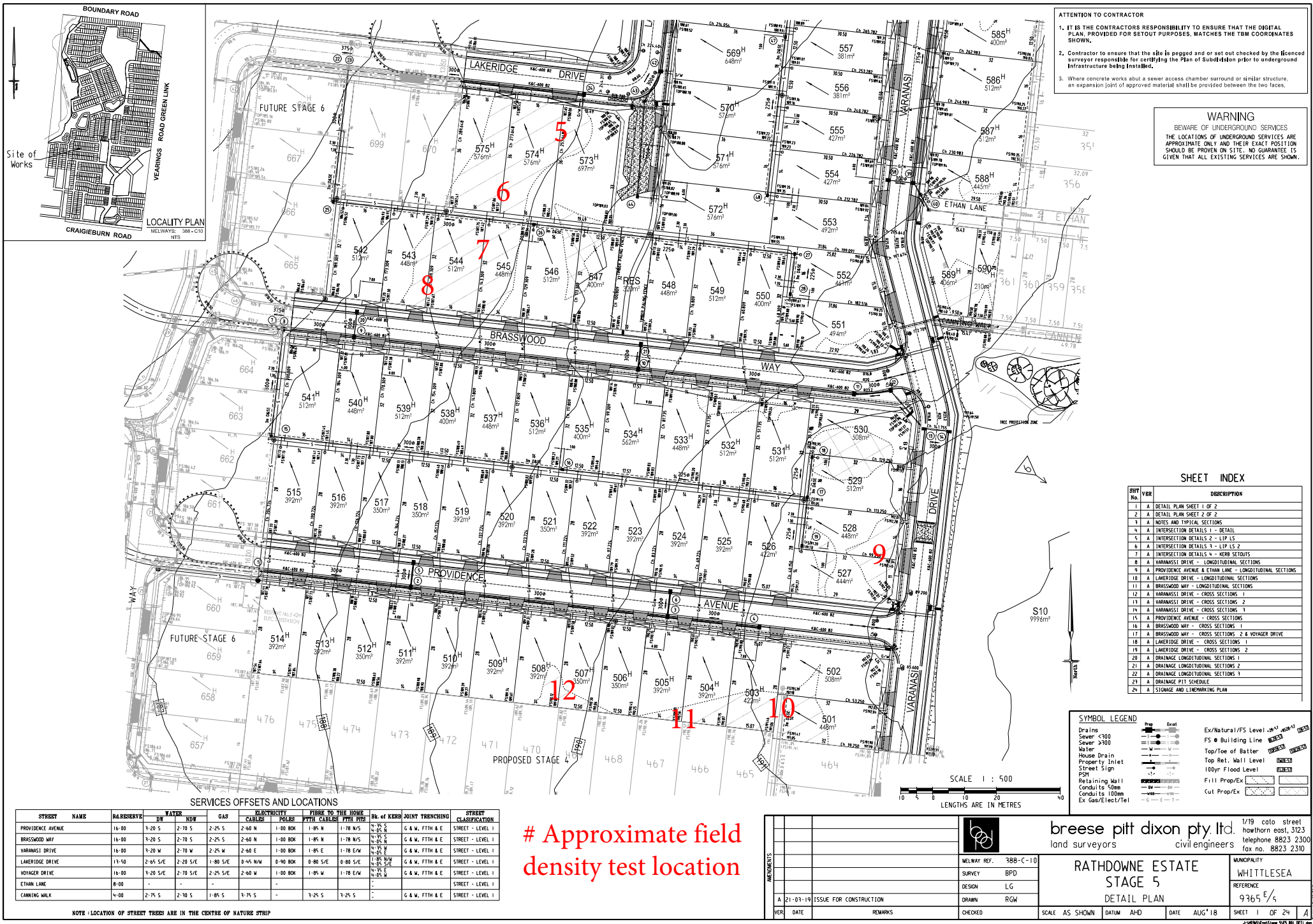
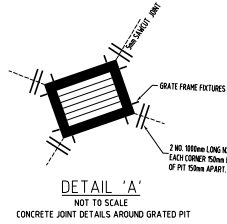
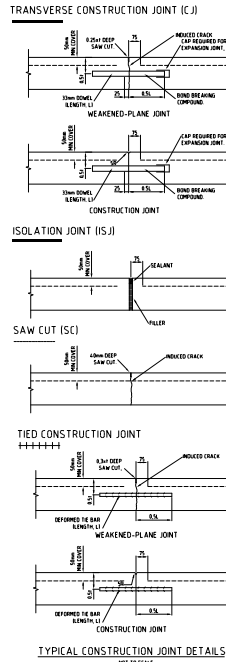
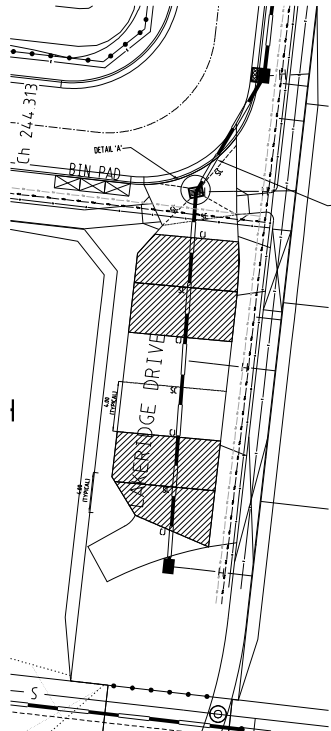
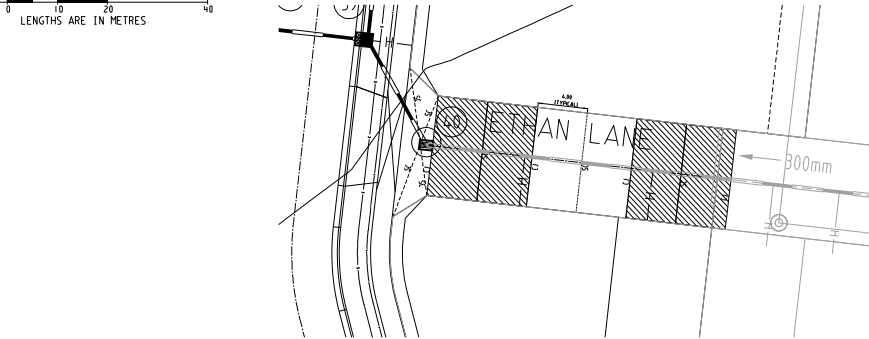


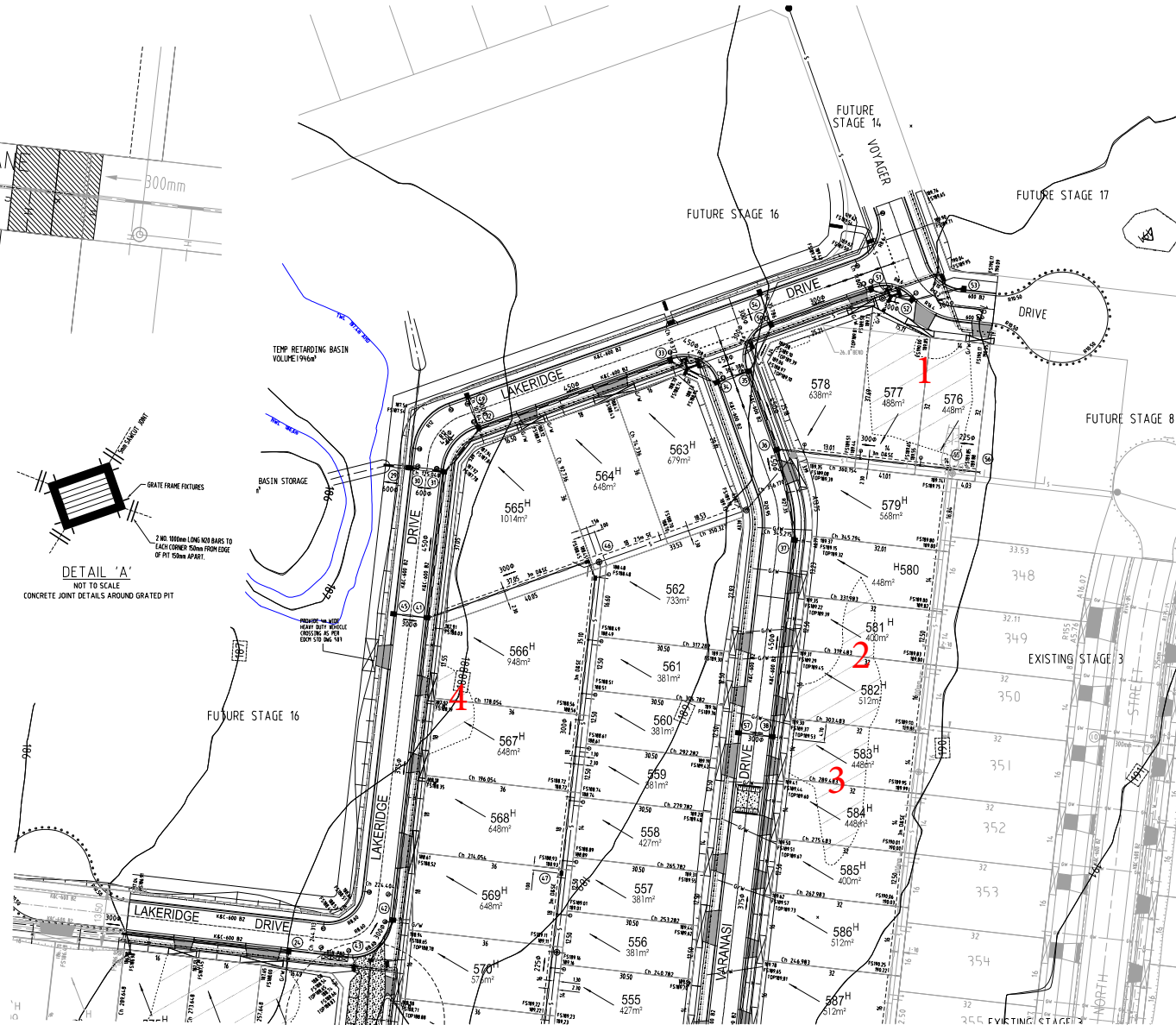
FIGURE 1 (2 of 2)

PLAN
SCALE 1:500
SCALE 1 : 500
LENGTHS ARE IN METRES



Approximate field density test location

SEE DETAIL 1 FOR CONTINUATION



breese pitt dixon pty ltd. land surveyors civil engineers		1/19 colo street howthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
RATHDOWNE ESTATE STAGE 5 DETAIL SHEET 2		MUNICIPALITY WHITTLESEA REFERENCE 9365 E/S	
MELWAY REF. 988-C-10 SURVEY BPD DESIGN LG DRAWN RGW CHECKED	DATE 21-03-19 ISSUE FOR CONSTRUCTION REMARKS	SCALE AS SHOWN DATUM AHD DATE AUG'18	SHEET 2 OF 24 A

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

- ATTENTION TO CONTRACTOR**
- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
 - Contractor to ensure that the site is pegged and/or set out checked by the licensed surveyor responsible for certifying the Plan of Subdivision prior to underground infrastructure being installed.
 - Where concrete works about a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.

21/08/2019
J:\RATHDOWNE\Stage 5\DETAIL SHEET 2.dwg



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 19255
Report No 19255/R001
Date Issued 25/07/2019

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	AC
Project	RATHDOWNE - STAGE 5	Date tested	22/05/19
Location	WOLLERT	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:06
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	5	6
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.89	1.84	1.87	1.85	1.87	1.85
Field moisture content %	17.2	15.9	19.4	16.3	17.9	19.2

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	6
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.90	1.82	1.91	1.89	1.88	1.86
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	19.5	18.0	22.0	19.0	20.5	21.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.5% dry	2.5% dry	2.5% dry	2.0% dry
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Density Ratio (R_{HD})	%	99.5	101.0	98.0	98.0	99.5	99.5
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Material description

No 1 - 6 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.
Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 19255
Report No 19255/R002
Date Issued 16/01/2020

Client WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)
Project RATHDOWNE - STAGE 5
Location WOLLERT

Tested by AC
Date tested 13/01/20
Checked by JHF

Feature EARTHWORKS

Layer thickness

200 mm

Time: 10:06

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	10	11	12
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth mm	175	175	175	175	175	175
Field wet density t/m ³	1.98	1.98	1.88	1.86	1.87	1.89
Field moisture content %	23.3	22.2	20.2	22.2	22.3	22.6

Test procedure AS 1289.5.7.1

Test No	7	8	9	10	11	12
Compactive effort	Standard					
Oversize rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material wet	3	4	6	0	5	0
Peak Converted Wet Density t/m ³	1.99	1.96	1.89	1.86	1.86	1.88
Adjusted Peak Converted Wet Density t/m ³	2.00	1.98	1.91	-	1.88	-
Optimum Moisture Content %	23.0	22.5	22.5	24.5	24.5	24.5

Moisture Variation From Optimum Moisture Content	0.5% wet	0.5% dry	2.0% dry	2.0% dry	2.0% dry	2.0% dry
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Density Ratio (R_{HD})	%	99.0	100.0	98.5	100.0	99.5	100.5
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

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Approved Signatory : Justin Fry