

CIVIL GEOTECHNICAL SERVICES ABN 26 474 013 724

PO Box 678 Croydon Vic 3136 Telephone: 9723 0744 Facsimile: 9723 0799

27th August 2024

Our Reference: 24233:NB1953

Winslow Constructors Pty Ltd 50 Barry Road CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING CREEKSTONE – STAGE N4 (TARNEIT)

Please find attached our Report No's 24233/R001 to 24233/R004 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 April 2024.

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



	SERVICES OFFSETS AND LOCATIONS													
LOCATION	GAS	WA	TER	COMMUNICATIONS		BLECTRICITY		BOK	Road Width	Joint Trenchine				
	1963	HDW	DW	Cables	Pita	Cables	Poins	BUR.	PERSON MICHIES	and treating				
BUOWING CRIVE	2.25 €	270€	320 €	1.85W	1.85 €	2.40 W	1.00 BOX	CHELCOM	16.00	MAGRAPHA				
DUMPNY STREET	2.25 N	2.70 H	3.20 N	1855	1.05 N	2505	1.00 BOX	6304/638	16.00	WAR SAFTE				
LMESTOCK STREET (EachWest)	2.25 N	2.70 N	3.20 N	1505	1.05 N	2.05	microisc	6304/633	16.00	WAS CAPTED				
LMESTOCK STREET (North-South)	2.30 €	2.75 €	125 €	1856		4.06	1.00 BOX	130E/170E	14.00	WAS CAPTED				



SIIT.	_	DRAWING INDEX
No.	VER	DESCRIPTION
- 1		UNOUTPUR INDIDITALS
- 2		HOTELAND TYPICAL CROSS SECTIONS
3		NTRACTOR DETAILS
		NTRANCTION DETAILS
		DISTRICT CONSTITUTION LIBETON
		UNISTOCK STREET - CROSS SECTIONS
		UNISTOCK STREET - CROSS SECTIONS
		SCIENCE OF CONTROLS SCHOOL OF CHASE SCHOOL
		DUMPHY STREET LONGTHOMAL SECTION AND CROSS SECTIONS
10		DAWASE CHEMICIPAL SECTIONS
		DAWAS CHOLDAN SCHOOL
		DAWAS CHOLDAN SCHOOL
13		BOWGE SCHEWARCHO PLAN

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WARNING

BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE
APPROXIMATE ONLY AND THEIR EVACT POSITION
SHOULD BE PROVEN ON SITE. NO SUBMITTEE IS
GIVEN THAT ALL DISTING SERVICES ARE SHOWN.

ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN
- CONTRACTOR TO ENSURE THAT THE SITE IS PECKED AND OR SET OUT CHECKED IS THE LICENCED SURVEYOR RESPONSIBLE FOR CERTIFYING THE PLAN OF SURDIVES PRIOR TO UNDERGRADURE INFRASTRUCTURE SETING HIS TALLED.
- WHERE CONCRETE WORKS ABUT A SEWER ACCESS CHAMBER SURROUND OR SIMUL STRUCTURE, AN EXPANSION JOINT OF APPROVED MATERIAL SHALL BE PROVIDED STRUCTURE.

Approximate field density test location



		S		breese pitt dixon pty. land surveyors civil engi	n
I		MELNIAY REF, 350-H10)	CREEKSTONE ESTA	Δ.
I		SURVEY BPD		STAGE N4	•
ı				1 STAGE N4	

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WYNDHAM

REFERENCE
8584 E/N4

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Job No 24233 CIVIL GEOTECHNICAL SERVICES Report No 24233/R001 6 - 8 Rose Avenue, Croydon 3136 Date Issued 02/05/24

WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) Client Tested by JB **Project** CREEKSTONE - STAGE N4 Date tested 16/04/24 Location **TARNEIT** Checked by JHF

EARTHWORKS Layer thickness 200 mm Time: 11:00 Feature

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		1	2	3	4	5	6
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	TO	TO	TO	TO	TO
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.89	1.84	1.93	1.93	1.89	1.91
Field moisture content	%	19.5	19.6	19.7	24.4	24.3	22.1

Test procedure AS 1289.5.7.1

Test No		1	2	3	4	5	6
Compactive effort				Star	dard		
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/m³	1.91	1.88	1.94	1.96	1.92	1.91
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	21.5	22.0	22.5	26.5	27.0	24.5

Moisture Variation From	2.0%	2.5%	2.5%	2.0%	2.5%	2.0%
Optimum Moisture Content	dry	dry	dry	dry	dry	dry

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	99.0	97.5	99.5	98.5	98.5	100.0

Material description

No 1 - 6 Clay Fill

NATA Accredited Laboratory No 9909 Accredited for compliance with ISO/IEC 17025 - Testing

AVRLOT HILF V1.10 MAR 13

Approved Signatory : Justin Fry



 CIVIL GEOTECHNICAL SERVICES
 Job No
 24233

 6 - 8 Rose Avenue, Croydon 3136
 Report No
 24233/R002

 Date Issued
 02/05/24

ClientWINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)Tested byJBProjectCREEKSTONE - STAGE N4Date tested17/04/24LocationTARNEITChecked byJHF

Feature EARTHWORKS Layer thickness 200 mm Time: 08:00

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	10	11	12
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	TO	TO	TO	TO	TO
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.80	1.88	1.85	1.83	1.85	1.85
Field moisture content	%	29.3	27.9	31.5	25.6	26.7	25.2

Test procedure AS 1289.5.7.1

Test No		7	8	9	10	11	12
Compactive effort				Stan	dard		
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/m³	1.83	1.88	1.91	1.87	1.87	1.89
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	31.5	30.5	33.5	26.0	27.0	27.0

Moisture Variation From	2.0%	2.5%	2.0%	0.0%	0.0%	2.0%
Optimum Moisture Content	dry	dry	dry			dry

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	98.5	100.0	97.0	97.5	98.5	98.0

Material description

No 7 - 12 Clay Fill

NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

AVRLOT HILF V1.10 MAR 13

Approved Signatory : Justin Fry



 CIVIL GEOTECHNICAL SERVICES
 Job No
 24233

 6 - 8 Rose Avenue, Croydon 3136
 Report No
 24233/R003

 Date Issued
 23/04/24

ClientWINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)Tested byJBProjectCREEKSTONE - STAGE N4Date tested18/04/24LocationTARNEITChecked byJHF

Feature EARTHWORKS Layer thickness 200 mm Time: 12:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		13	14	15	16	17	18
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	TO	TO	TO	TO	TO
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.86	1.84	1.84	1.86	1.84	1.89
Field moisture content	%	32.2	30.8	31.2	30.6	32.1	32.9

Test procedure AS 1289.5.7.1

Test No		13	14	15	16	17	18
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/m³	1.88	1.89	1.88	1.91	1.92	1.94
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	34.5	33.0	33.5	33.0	34.5	35.0

Moisture Variation From	2.0%	2.0%	2.5%	2.0%	2.0%	1.5%
Optimum Moisture Content	dry	dry	dry	dry	dry	dry

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	98.5	97.0	98.0	97.5	96.0	97.5

Material description

No 13 - 18 Clay Fill

NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

AVRLOT HILF V1.10 MAR 13

Approved Signatory : Justin Fry



Job No 24233 CIVIL GEOTECHNICAL SERVICES Report No 24233/R004 Date Issued 6 - 8 Rose Avenue, Croydon 3136 23/04/24

WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD) Client Tested by JB **CREEKSTONE - STAGE N4** Date tested 19/04/24 Project Location Checked by JHF **TARNEIT**

Feature **EARTHWORKS** Layer thickness 200 mm Time: 10:30

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		19	20	21	22	23	24
Location							
		REFER	REFER	REFER	REFER	REFER	REFER
		TO	TO	TO	TO	TO	TO
		FIGURE 1					
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m³	1.92	1.90	1.91	1.89	1.85	1.86
Field moisture content	%	30.2	31.3	28.4	30.4	31.2	27.1

Test procedure AS 1289.5.7.1

Test No		19	20	21	22	23	24
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/m³	1.97	1.94	1.96	1.96	1.89	1.92
Adjusted Peak Converted Wet Density	t/m³	-	-	-	-	-	-
Optimum Moisture Content	%	30.0	33.5	30.5	30.0	32.5	29.5

Moisture Variation From	0.0%	2.0%	2.0%	0.5%	1.0%	2.5%
Optimum Moisture Content		dry	dry	wet	dry	dry

density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	97.0	98.0	97.5	96.5	97.5	97.0

Material description

No 19 - 24 Clay Fill

NATA Accredited Laboratory No 9909 Accredited for compliance with ISO/IEC 17025 - Testing

AVRLOT HILF V1.10 MAR 13

Approved Signatory: Justin Fry