Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536
Email. brissoil@bigpond.net.au
Geotechnical Testing Services.

Connemar Pty. Ltd.
ABN 50 065 093 647

Job No. 202128

16th of January 2023

BMD Urban Pty Ltd
PO Box 197
WYNNUM CENTRAL QLD 4178

Attn Kayt Scott

RE: CLAY GULLY – STAGE 4
(Allotment Fill – Geotechnical Inspection & Testing)

SCOPE

Brisbane Soil Testing were commissioned by BMD Urban Pty Ltd to provide geotechnical inspection and testing of the allotment earthworks on the above stage subdivision.

Some filling was required as part of the development and for this work, our site presence was maintained in accordance with AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments" Appendix B, "Level 1". As directed the scope of the Level 1 inspection and testing was:

(i) check adequacy of pre-fill ground preparation
(ii) remove unsuitable materials
(iii) inspect and carry out compaction control testing of placed fill materials
(iv) provide R.P.E.Q. Certification

CONTROL INSPECTION AND TESTING

An inspection of the areas to be filled was carried out on the 21st of June 2022 and on an ongoing basis as the job progressed, by Brisbane Soil Testing staff and Steve Hackworth – The Soil Testers.

On-site cut materials were used for filling and these materials were generally placed in 0.20m loose horizontal layers and compacted with a vibrating pad foot roller.

Seventeen field density tests were carried between the 21st of June 2022 and the 30th of June 2022. These tests recorded Dry Density Ratios between 96.0% and 100.5% relative to the standard compaction test and field moisture contents within –1.0% and +2.0% of their respective optimum moisture contents, AS1289.5.1.1/5.7.1.

The locations of all tests taken are shown on the attached plan B00297-CG402 Rev A titled 'Allotment Fill Test Locations'.

Attached documents B194/4 (Report Nos. 47689, 47691, 47706, 47713, 47714, 47715 & 47716) provide full test data for the compaction control tests.

No fill was placed on Lots 166-174, 192-201, 212, 213 & 246-256 during our level 1 inspection and testing commission.

CONCLUSION

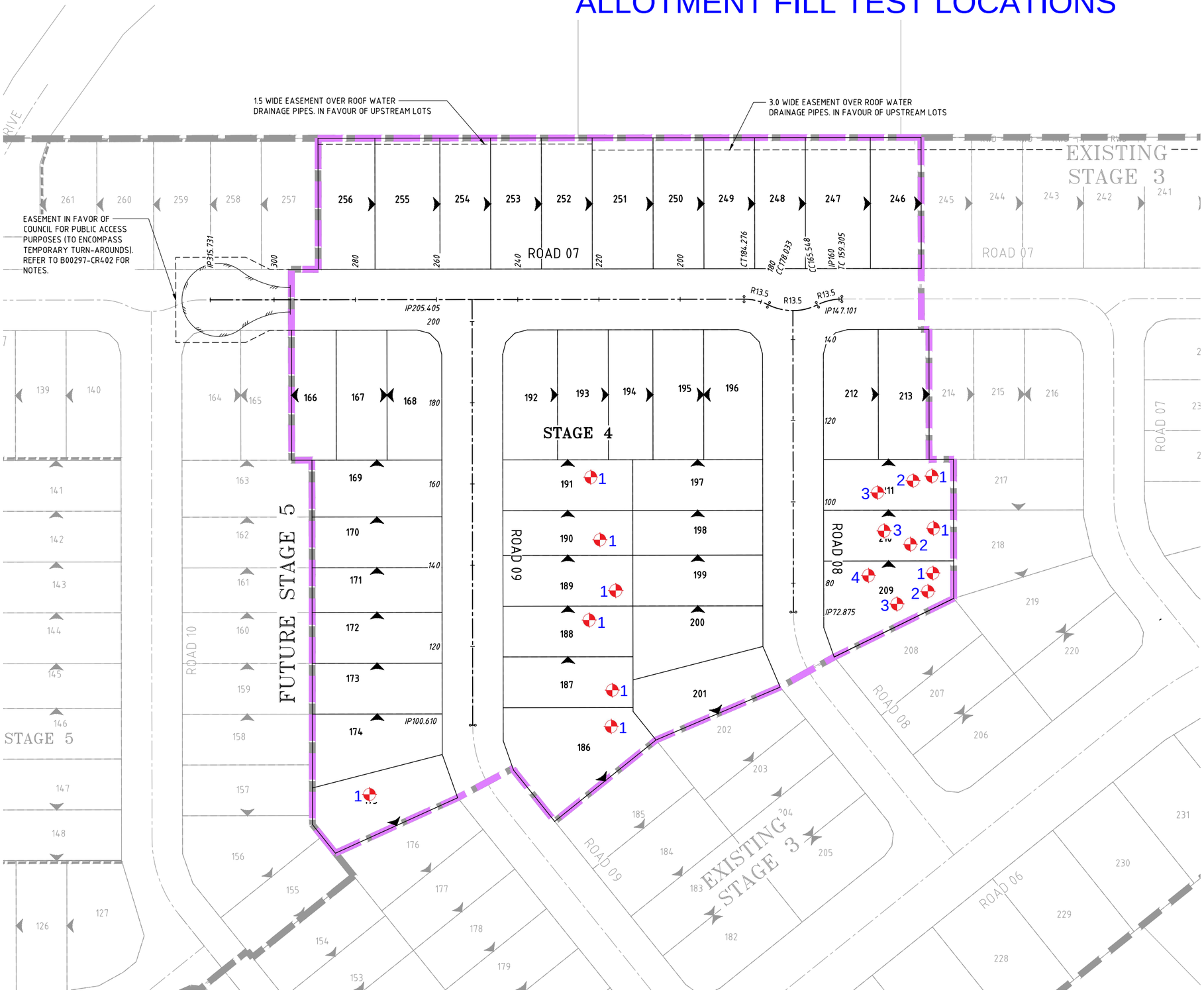
Based on the test results and site inspections, we conclude that the fill foundation is considered to comply with requirements of Table 5.1- Item 1 & 2 of AS3798-2007 and the project specifications.

We confirm that all vegetation and topsoil was removed, and that a sound base for the proposed filling was provided. We further confirm that all filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

GREG McGRANN
BRISBANE SOIL TESTING

STEVEN HACKWORTH
THE SOILTESTERS
R.P.E.Q. No.9411

ALLOTMENT FILL TEST LOCATIONS



LEGEND

- STAGE BOUNDARY
- LOT BOUNDARY
- FUTURE LOT BOUNDARY
- ROAD CENTERLINE
- OPTIONAL "ZERO LOT" BOUNDARY

S	0.000	67843.486	95853.754	21.124	331°37'30.00"	LINE		80.352
TC	80.352	67805.300	95924.452	23.268	331°37'30.00"	ARC	30.000	20.257
CT	100.610	67802.180	95944.081	23.287	10°18'49.55"	LINE		104.795
E	205.405	67820.942	96047.183	23.110	10°18'49.55"			

RD P CL->ROAD 08 HORIZONTAL SEGMENTS

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	DEP.SEG	DEP.RAD	DEP.LEN
S	0.000	67912.995	95891.298	18.599	331°37'30.00"	LINE		52.618
TC	52.618	67887.989	95937.594	19.599	331°37'30.00"	ARC	30.000	20.257
CT	72.875	67884.869	95957.223	19.846	10°18'49.55"	LINE		74.226
E	147.101	67898.158	96030.249	19.790	10°18'49.55"			

RD P CL->ROAD 07 HORIZONTAL SEGMENTS

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	DEP.SEG	DEP.RAD	DEP.LEN
S	0.000	67983.536	95926.929	15.133	331°37'30.00"	LINE		27.058
TC	27.058	67970.678	95950.736	15.377	331°37'30.00"	ARC	30.000	20.257
CT	47.315	67967.558	95970.365	16.020	10°18'49.55"	LINE		39.327
TC	86.642	67974.599	96009.056	15.838	10°18'49.55"	-ARC	-10.000	15.708
CT	102.350	67966.551	96020.685	16.020	280°18'49.55"	LINE		56.955
TC	159.305	67910.516	96030.882	19.160	280°18'49.55"	-ARC	-13.500	6.243
CC	165.548	67904.337	96030.566	19.477	253°49'08.23"	ARC	13.500	12.485
CC	178.033	67892.487	96032.722	20.102	306°48'30.86"	-ARC	-13.500	6.243
CT	184.276	67886.815	96035.195	20.414	280°18'49.55"	LINE		133.910
TC	318.185	67755.069	96059.170	23.256	280°18'49.55"	-ARC	-13.500	6.243
CC	324.428	67748.890	96058.854	23.188	253°49'08.23"	ARC	13.500	12.485
CC	336.913	67737.040	96061.010	23.051	306°48'30.86"	-ARC	-13.500	6.243
CT	343.156	67731.368	96063.483	22.982	280°18'49.55"	LINE		56.955
TC	400.111	67675.334	96073.680	22.357	280°18'49.55"	-ARC	-10.000	15.708
CT	415.819	67663.705	96065.632	22.188	190°18'49.55"	LINE		157.500
TC	573.319	67635.506	95910.677	23.352	190°18'49.55"	-ARC	-10.000	15.708
CT	589.027	67643.554	95899.049	23.446	100°18'49.55"	LINE		51.821
TC	640.848	67694.538	95889.770	23.754	100°18'49.55"	-ARC	-20.000	13.505
CT	654.353	67707.624	95891.850	23.834	61°37'30.00"	LINE		22.434
E	676.787	67727.363	95902.512	24.120	61°37'30.00"			

RD P CL->CLAY GULLY RD HORIZONTAL SEGMENTS

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	DEP.SEG	DEP.RAD	DEP.LEN

NOTE:
SETOUT INFORMATION IS CONTAINED IN THE ELECTRONIC DESIGN MODELS, WHICH ARE TO BE PROVIDED TO THE CONTRACTOR AND CONSTRUCTION SURVEYOR PRIOR TO THE START OF CONSTRUCTION.

REVISION IN PROGRESS

No.	Amendments	Drawn	Design	Design Chk	Appd	Date
A	ORIGINAL ISSUE	ESS	PDW	PI	PI	22/02/22

Registered Engineer
Date Register
ENGINEERING CERTIFICATION

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arc ON THE POINT

Empower ENGINEERS & PROJECT MANAGERS

RECEIVED
KAYSCO1 , 23/08/2022, 3:42:14 PM

Client: URBEX PTY LTD
Project: CLAY GULLY STAGE 4 - OPERATIONAL WORKS
Title: CONTROL LINE SETOUT PLAN

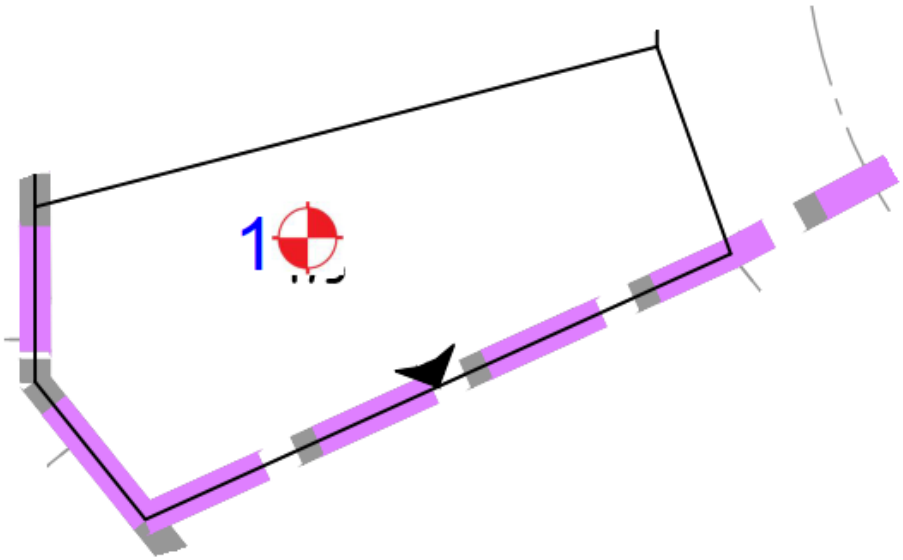
Datum: AHD
PSM 186072
RL 11.794
(LOCAL)COORD

NOT FOR CONSTRUCTION

Project No. B00297-CG402
Drawing No.
Rev A

File Name: C:\12d\5\data\MANUDSYN01\B00297_38x14 CIVIL-DRGS\14-2 CURRENT\Stage 4\B00297-ST4-RP
User: YELILIN
Plot Date: 23/08/2022 12:42:03 PM

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 175



Field Density Results **Page 1of 1**

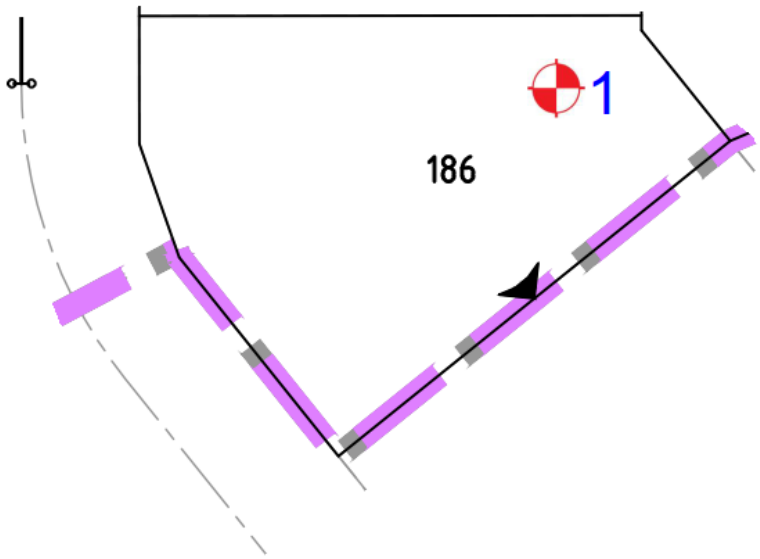
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26136)	22/06/2022	o/s 10m Rear bdy, o/s 5m Right bdy R.L. 23.59	96.0

In our opinion all fill on Lot 175 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 186



Field Density Results **Page 1of 1**

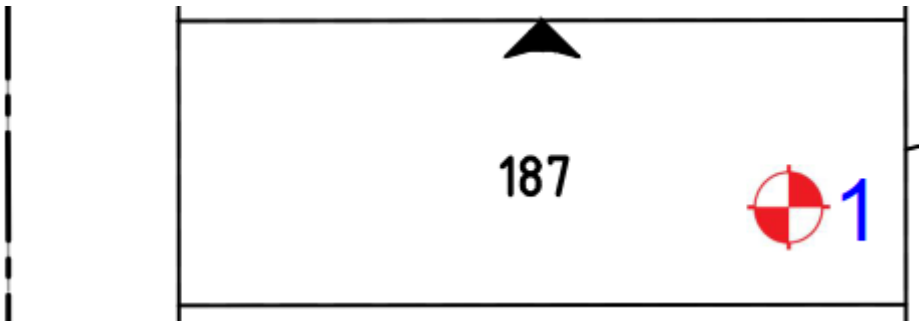
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26124)	21/06/2022	o/s 4m Rear bdy, o/s 3m Left bdy R.L. 23.63	98.0

In our opinion all fill on Lot 186 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 187



Field Density Results **Page 1of 1**

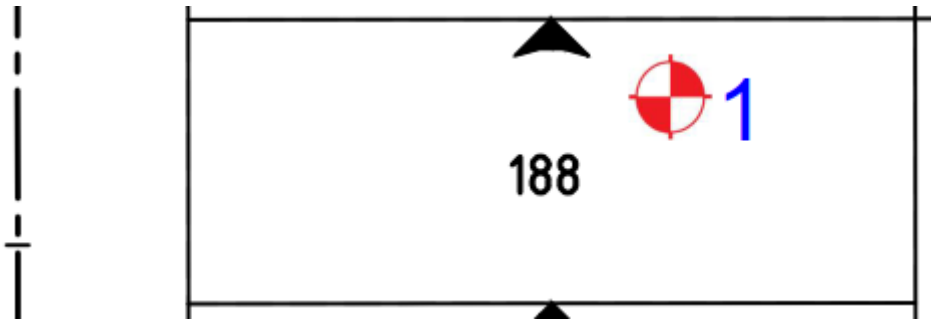
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26125)	21/06/2022	o/s 3m Rear bdy, o/s 4m Right bdy R.L. 23.62	97.5

In our opinion all fill on Lot 187 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 188



Field Density Results **Page 1of 1**

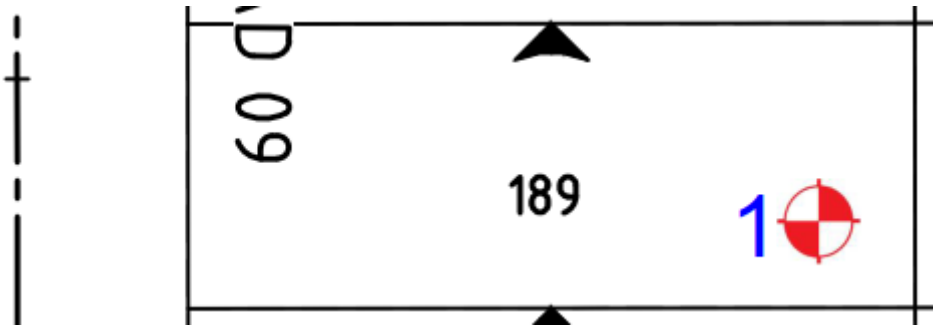
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26126)	21/06/2022	o/s 12m Rear bdy, o/s 3m Left bdy R.L. 23.59	97.5

In our opinion all fill on Lot 188 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 189



Field Density Results **Page 1of 1**

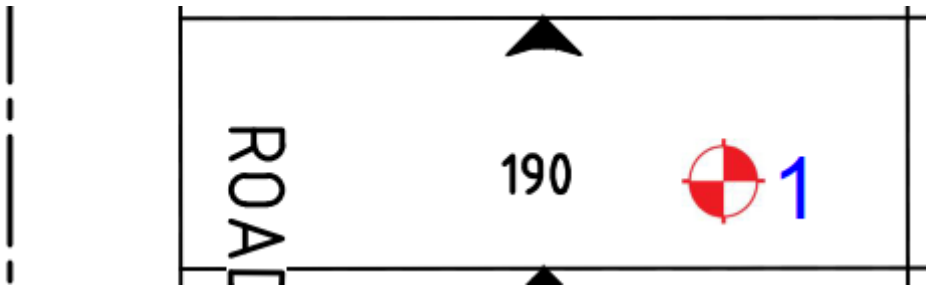
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26162)	23/06/2022	o/s 3m Rear bdy, o/s 3m Right bdy R.L. 23.33	100.0

In our opinion all fill on Lot 189 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 190



Field Density Results **Page 1of 1**

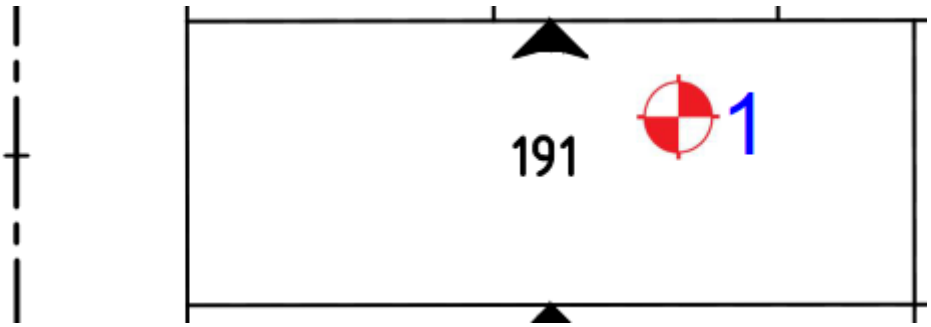
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26163)	23/06/2022	o/s 6m Rear bdy, o/s 4m Right bdy R.L. 23.30	98.5

In our opinion all fill on Lot 190 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 191



Field Density Results **Page 1of 1**

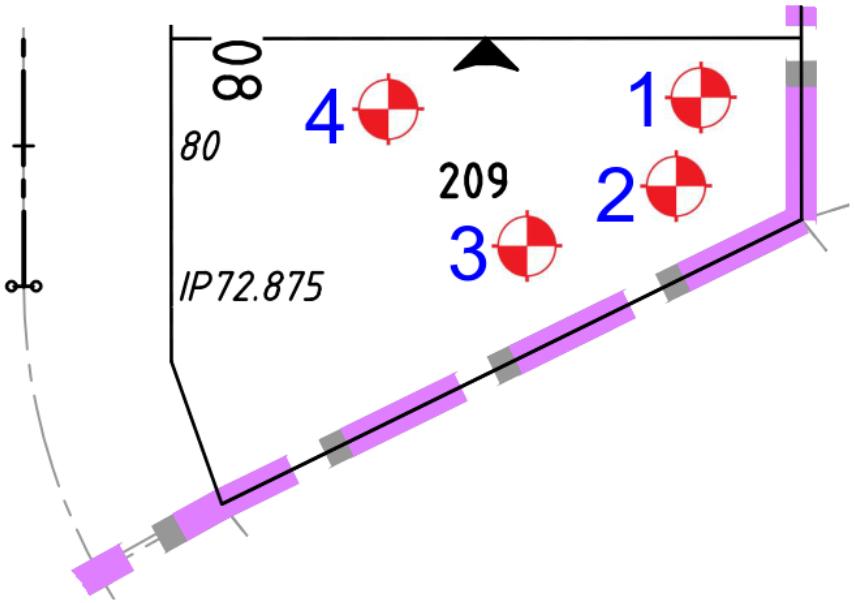
Test No.	Date Tested	Test Location	Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26164)	23/06/2022	o/s 10m Rear bdy, o/s 4m Left bdy R.L. 23.31	97.5

In our opinion all fill on Lot 191 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 209



Field Density Results **Page 1of 1**

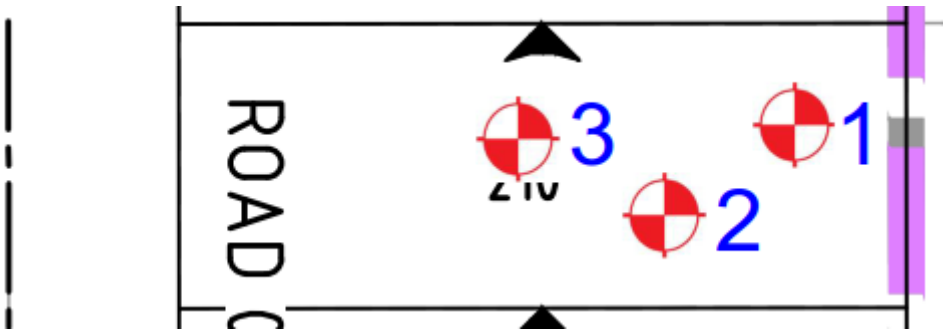
Test No.	Date Tested	Test Location		Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26193)	27/06/2022	o/s 3m Rear bdy, o/s 2m Left bdy	R.L. 18.42	97.0
2 (26194)	27/06/2022	o/s 4m Rear bdy, o/s 3m Right bdy	R.L. 18.95	97.0
3 (26227)	29/06/2022	o/s 11m Rear bdy, o/s 3m Right bdy	R.L. 19.49	99.5
4 (26245)	30/06/2022	o/s 9m Front bdy, o/s 2m Left bdy	R.L. 19.94	100.5

In our opinion all fill on Lot 209 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 210



Field Density Results **Page 1of 1**

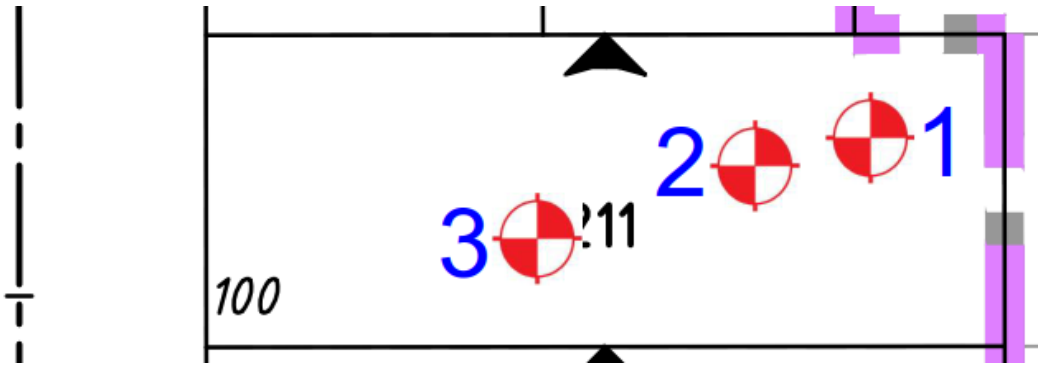
Test No.	Date Tested	Test Location		Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26210)	28/06/2022	o/s 3m Rear bdy, o/s 4m Left bdy	R.L. 18.76	99.5
2 (26229)	29/06/2022	o/s 9m Rear bdy, o/s 3m Right bdy	R.L. 19.38	97.5
3 (26244)	30/06/2022	o/s 12m Front bdy, o/s 5m Left bdy	R.L. 19.90	100.0

In our opinion all fill on Lot 210 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a “Level 1” inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

EARTHWORKS SUMMARY REPORT
CLAY GULLY – STAGE 4
LOT 211



Field Density Results **Page 1of 1**

Test No.	Date Tested	Test Location		Dry Density Ratio % AS1289 5.4.1 (Standard)
1 (26209)	28/06/2022	o/s 4m Rear bdy, o/s 3m Left bdy	R.L. 18.79	98.0
2 (26228)	29/06/2022	o/s 7m Rear bdy, o/s 5m Left bdy	R.L. 19.42	96.5
3 (26243)	30/06/2022	o/s 11m Front bdy, o/s 3m Right bdy	R.L. 19.96	100.5

In our opinion all fill on Lot 211 has been placed in a controlled manner to achieve a minimum dry density ratio of 95% (AS1289.5.1.1/5.7.1 Standard Compaction) and is considered to comply with the requirements of Table 5.1 of AS3798-2007 and the project specifications. We confirm that filling to design final level can be termed controlled filling in accordance with Section 6.4.2. of AS2870-2011, via a "Level 1" inspection and testing commission.

.....
GREG McGRANN

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur, Q. 4503
Ph. (07) 3285 6536

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur Q 4503
Ph.(07) 3285 6536
Email. brissoil@bigpond.net.au

FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.
ABN 50 065 093 647
Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47689
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	21/06/2022	Tested by	RW

Field Test N^o Sample N^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N^o	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26124	12:00	150	LOT 186 4m Rear bdy, 3m Left bdy R.L. 23.63	26124	-	20.5	19.5	~~Adj.~~ 1.0 WET	2.06	~~Adj.~~ 2.10	**98.0**
				Material Description: REDDISH GREY SILTY CLAY							
26125	12:30	150	LOT 187 3m Rear bdy, 4m Right bdy R.L. 23.62	26125	-	19.0	18.0	~~Adj.~~ 1.0 WET	2.06	~~Adj.~~ 2.11	**97.5**
				Material Description: REDDISH GREY SILTY CLAY							
26126	13:00	150	LOT 188 12m Rear bdy, 3m Left bdy R.L. 23.59	26126	-	22.0	20.5	~~Adj.~~ 1.5 WET	2.02	~~Adj.~~ 2.07	**97.5**
				Material Description: REDDISH GREY SILTY CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 27/06/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

Accredited for compliance with ISO/IEC 17025 – Testing.
Results relate only to the items tested.

Greg McGrann/Manager
Approved Signatory
Date: 27/06/2022

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur Q 4503
Ph.(07) 3285 6536
Email. brissoil@bigpond.net.au

FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.
ABN 50 065 093 647
Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47691
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	22/06/2022	Tested by	RW

Field Test N^o Sample N^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N^o	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26136	13:30	150	LOT 175 10m Rear bdy, 5m Right bdy R.L. 23.59	26136	-	18.0	19.0	~~Adj.~~ 1.0 DRY	2.01	~~Adj.~~ 2.09	**96.0**
				Material Description: REDDISH GREY SILTY CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 27/06/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

Accredited for compliance with ISO/IEC 17025 – Testing.
Results relate only to the items tested.

Greg McGrann/Manager
Approved Signatory
Date: 27/06/2022

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur Q 4503
Ph.(07) 3285 6536
Email. brissoil@bigpond.net.au

FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.
ABN 50 065 093 647
Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47706
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	23/06/2022	Tested by	RW

Field Test Nº Sample Nº	Time of Test	Depth of Test mm	Test Location	Lab Compaction Nº	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26162	7:10	150	LOT 189 3m Rear bdy, 3m Right bdy R.L. 23.33	26162	-	22.0	21.0	~~Adj.~~ 1.0 WET	2.07	~~Adj.~~ 2.07	**100.0**
				Material Description: GREY BROWN SILTY CLAY							
26163	7:30	150	LOT 190 6m Rear bdy, 4m Right bdy R.L. 23.30	26163	-	27.5	25.5	~~Adj.~~ 2.0 WET	1.94	~~Adj.~~ 1.97	**98.5**
				Material Description: GREY BROWN CLAY							
26164	7:50	150	LOT 191 10m Rear bdy, 4m Left bdy R.L. 23.31	26164	-	21.5	20.0	~~Adj.~~ 1.5 WET	2.01	~~Adj.~~ 2.06	**97.5**
				Material Description: GREY BROWN SILTY CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 04/07/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

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Greg McGrann/Manager
Approved Signatory
Date: 04/07/2022

Brisbane Soil Testing
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Kallangur Q 4503
Ph.(07) 3285 6536
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FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47713
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	27/06/2022	Tested by	RW

Field Test N^o Sample N^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N^o	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26193	10:00	150	LOT 209 3m Rear bdy, 2m Left bdy R.L. 18.42	26193	-	19.0	18.0	~~Adj.~~ 1.0 WET	2.03	~~Adj.~~ 2.09	**97.0**
				Material Description: BROWN MOTTLED RED SILTY CLAY							
26194	13:30	150	LOT 209 4m Rear bdy, 3m Right bdy R.L. 18.95	26194	-	17.0	17.5	~~Adj.~~ 0.5 DRY	2.03	~~Adj.~~ 2.09	**97.0**
				Material Description: GREY BROWN SILTY CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 05/07/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

Accredited for compliance with ISO/IEC 17025 – Testing.
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Greg McGrann/Manager
Approved Signatory
Date: 05/07/2022

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Kallangur Q 4503
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Email. brissoil@bigpond.net.au

FIELD DENSITY CERTIFICATE

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Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47714
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	28/06/2022	Tested by	RW

Field Test N^o Sample N^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N^o	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26209	10:00	150	LOT 211 4m Rear bdy, 3m Left bdy R.L. 18.79	26209	-	17.0	16.0	~~Adj.~~ 1.0 WET	2.14	~~Adj.~~ 2.18	**98.0**
				Material Description: REDDISH BROWN SILTY CLAY & ROCK FRAGMENTS							
26210	10:30	150	LOT 210 3m Rear bdy, 4m Left bdy R.L. 18.76	26210	-	31.5	30.5	~~Adj.~~ 1.0 WET	1.89	~~Adj.~~ 1.90	**99.5**
				Material Description: GREY MOTTLED RED CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 05/07/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

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Greg McGrann/Manager
Approved Signatory
Date: 05/07/2022

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur Q 4503
Ph.(07) 3285 6536
Email. brissoil@bigpond.net.au

FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.
ABN 50 065 093 647
Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47715
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	29/06/2022	Tested by	RW

Field Test Nº Sample Nº	Time of Test	Depth of Test mm	Test Location	Lab Compaction Nº	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26227	10:00	150	LOT 209 11m Rear bdy, 3m Right bdy R.L. 19.49	26227	-	15.5	14.5	~~Adj.~~ 1.0 WET	2.15	~~Adj.~~ 2.16	**99.5**
				Material Description: DARK GREY BROWN SILTY CLAY							
26228	12:40	150	LOT 211 7m Rear bdy, 5m Left bdy R.L. 19.42	26228	-	12.5	12.0	~~Adj.~~ 0.5 WET	2.07	~~Adj.~~ 2.14	**96.5**
				Material Description: DARK BROWN SANDY CLAY							
26229	13:30	150	LOT 210 9m Rear bdy, 3m Right bdy R.L. 19.38	26229	-	16.0	16.5	~~Adj.~~ 0.5 DRY	2.06	~~Adj.~~ 2.11	**97.5**
				Material Description: GREY BROWN SILTY CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 05/07/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

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Results relate only to the items tested.

Greg McGrann/Manager
Approved Signatory
Date: 05/07/2022

Brisbane Soil Testing
20/1191 Anzac Ave
Kallangur Q 4503
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Email. brissoil@bigpond.net.au

FIELD DENSITY CERTIFICATE

Connemar Pty. Ltd.
ABN 50 065 093 647
Geotechnical Testing Services

Customer	BMD URBAN PTY LTD	Feature	ALLOTMENT FILL	Report No.	47716
Address	PO BOX 197, WYNNUM CENTRAL QLD 4178	Location	SEE BELOW	Job No.	202128
Project	CLAY GULLY – STAGE 4	Date Tested	30/06/2022	Tested by	RW

Field Test N^o Sample N^o	Time of Test	Depth of Test mm	Test Location	Lab Compaction N^o	% Oversize 19mm/37.5mm Wet Basis	Field Moisture Content %	Optimum Moisture Content %	Moisture Variation %	Field Wet Density t/m^3	Peak Converted Wet Density t/m^3	Hilf Density Ratio %
26243	11:00	150	LOT 211 11m Front bdy, 3m Right bdy R.L. 19.96	26243	-	15.5	16.0	~~Adj.~~ 0.5 DRY	2.13	~~Adj.~~ 2.12	**100.5**
				Material Description: BROWN SILTY SANDY CLAY							
26244	11:30	150	LOT 210 12m Front bdy, 5m Left bdy R.L. 19.90	26244	-	15.5	16.0	~~Adj.~~ 0.5 DRY	2.11	~~Adj.~~ 2.11	**100.0**
				Material Description: LIGHT GREY BROWN SILTY CLAY							
26245	12:00	150	LOT 209 9m Front bdy, 2m Left bdy R.L. 19.94	26245	-	15.0	14.5	~~Adj.~~ 0.5 WET	2.15	~~Adj.~~ 2.14	**100.5**
				Material Description: GREY BROWN SANDY CLAY							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							
								~~Adj.~~		~~Adj.~~	
				Material Description:							

Remarks:

Specified Density Ratio 95% STD

Test Procedures: AS1289 5.1.1, 5.3.1, 5.7.1, 2.1.1

Determined on material finer than 19mm

Prepared By: *G MCGRANN*
Date: 05/07/2022

Checked By: *G MCGRANN*

NATA
Accreditation No.2415

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Greg McGrann/Manager
Approved Signatory
Date: 05/07/2022