

AGES Omega (Pty) Ltd

ADMINISTRATIVE OFFICE:

EAST LONDON - Eastern Cape
10 Sansom Road, Vincent, East London | www.ages-omega.co.za
Tel: +27 86 188 8609 | Email: omega@ages-group.com

Reg: 2006/015164/07, Vat: 4630190603

LEVEL 2 B-BBEE | Value-Adding Supplier

SATELLITE OFFICES:

DURBAN - KwaZulu-Natal
No. 5 Ennisdale Drive,
Durban North, 4051
Tel: +27 86 188 8609

PORT ELIZABETH - Eastern Cape
69 Paulus Str., Kamma Park
Port Elizabeth, 6070
Tel: +27 86 188 8609

STELLENBOSCH - Western Cape
56 Zambezi, 3 Borchard Str.
Stellenbosch, 7600
Tel: +27 86 188 8609

AGES Group Offices: North West Eastern Cape Western Cape Limpopo Gauteng KwaZulu-Natal Namibia



Company	: BVI Border	Date	: 25 July 2018
Attention	: Mr. Werner De Lange	email	: WernerDL@bvi.co.za
From	: Mr. Frikkie De Jager	Total pages	: 72

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GEOTECHNICAL PRELIMINARY REPORT – ELIDZ PLATFORM B

The following preliminary report is given for the above-mentioned project, for the area designated for Platform B.

Test pit excavation and profiling

A total of 32 test pits, numbered Test Pit B1 to B32 were excavated in the central portion of the project area designated for Platform B and future expansions. The positions of the test pits are indicated in the Figure below, with detailed test pit logs attached in the end of this document for reference.



Figure 1: Test pit positions and numbering on Platform B

Excavatability conditions

It was possible to excavate the test pits utilising a JCB 3CX 4x4 TLB-type excavator, fitted with a 300 rock-bucket, to a depth between 1.15 and 1.90 mbgl (mean 1.52 mbgl) after which excavation refused in all test pits on moderately hard rock to hard rock siltstone bedrock material.

Siltstone bedrock material was encountered in all test pits from a depth between 0.60 and 1.65 mbgl (mean 1.09 mbgl).

Excavatability conditions can be summarised as follow:

- From Surface to 1.0 mbgl - Soft Excavation Class
- From 1.0 mbgl to 2.5 mbgl - Intermediate Excavation Class with pockets of Hard Rock Excavation

General soil conditions

The area is generally covered by hillwash material that is composed of sandy clay that exhibits a firm consistency and intact soil structure. The hillwash material becomes ferruginised at depth in localised portions of the site, characterised in profile by the occurrence of ferricrete nodules. Plant roots were recorded in this material over the entire site. The hillwash material extends to a maximum depth of 1.10 mbgl.

The transported material is underlain by residual siltstone that is composed of sandy clay with scattered to occasional siltstone gravel to cobbles. The material exhibits a firm to stiff consistency and fractured and inherent structure, with a maximum thickness of approximately 1.0 m. The upper portion of the residual material is generally ferruginised, characterised in profile by scattered to abundant ferricrete nodules.

Siltstone bedrock material was encountered in all test pits from a depth between 0.60 to 1.65 mbgl (mean 1.09 mbgl). The material is highly to moderately weathered, fine grained, medium jointed with a soft rock to moderately hard rock hardness.

The generalised soil profile and sections are indicated in the figures below.

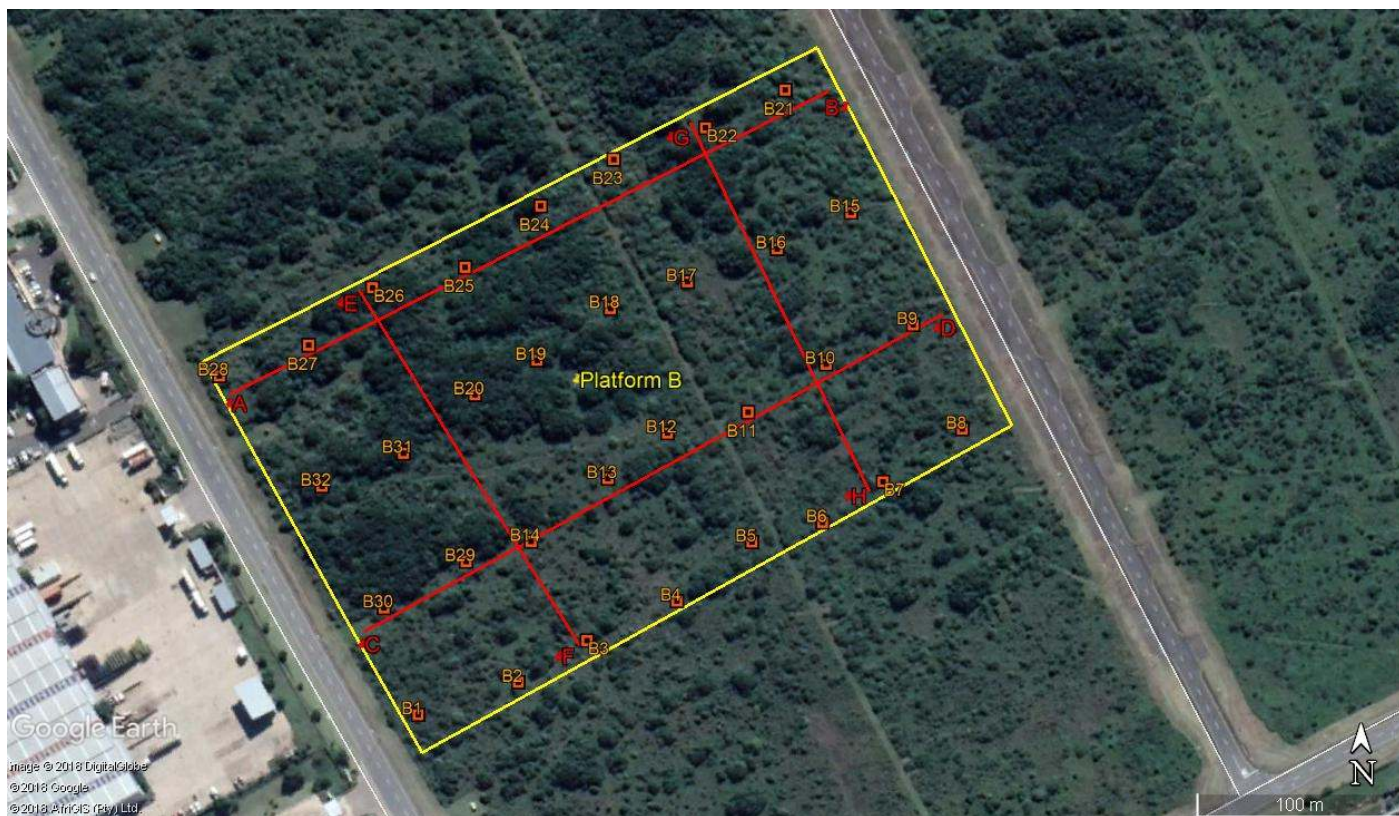


Figure 2: Cross section indication for Platform B

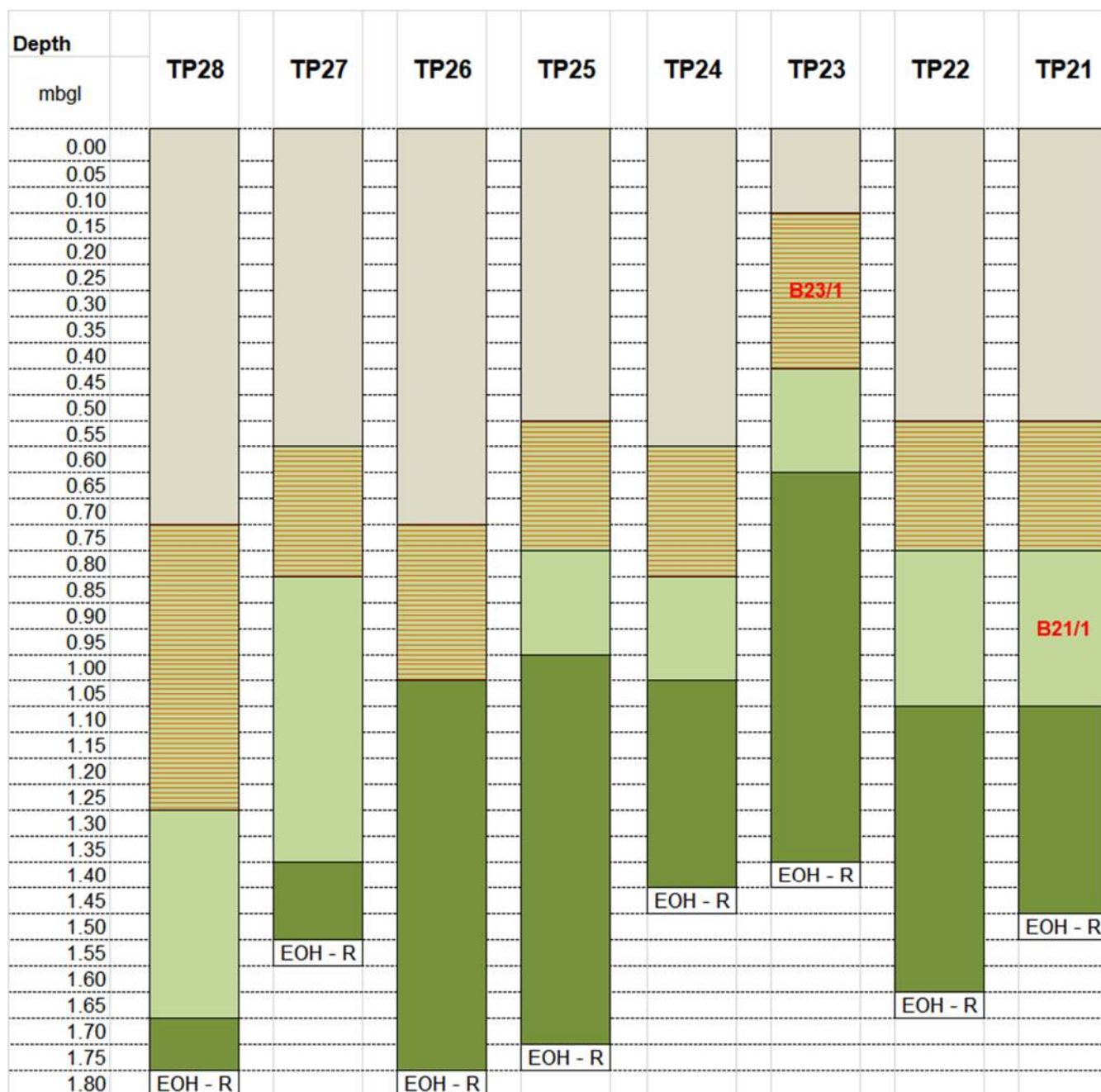


Figure 3: Generalised soil conditions – Section A-B

LEGEND	
	Fill
	Hillwash
	Ferr Res SiltSt
	Residual Siltstone
	Siltstone Bedrock

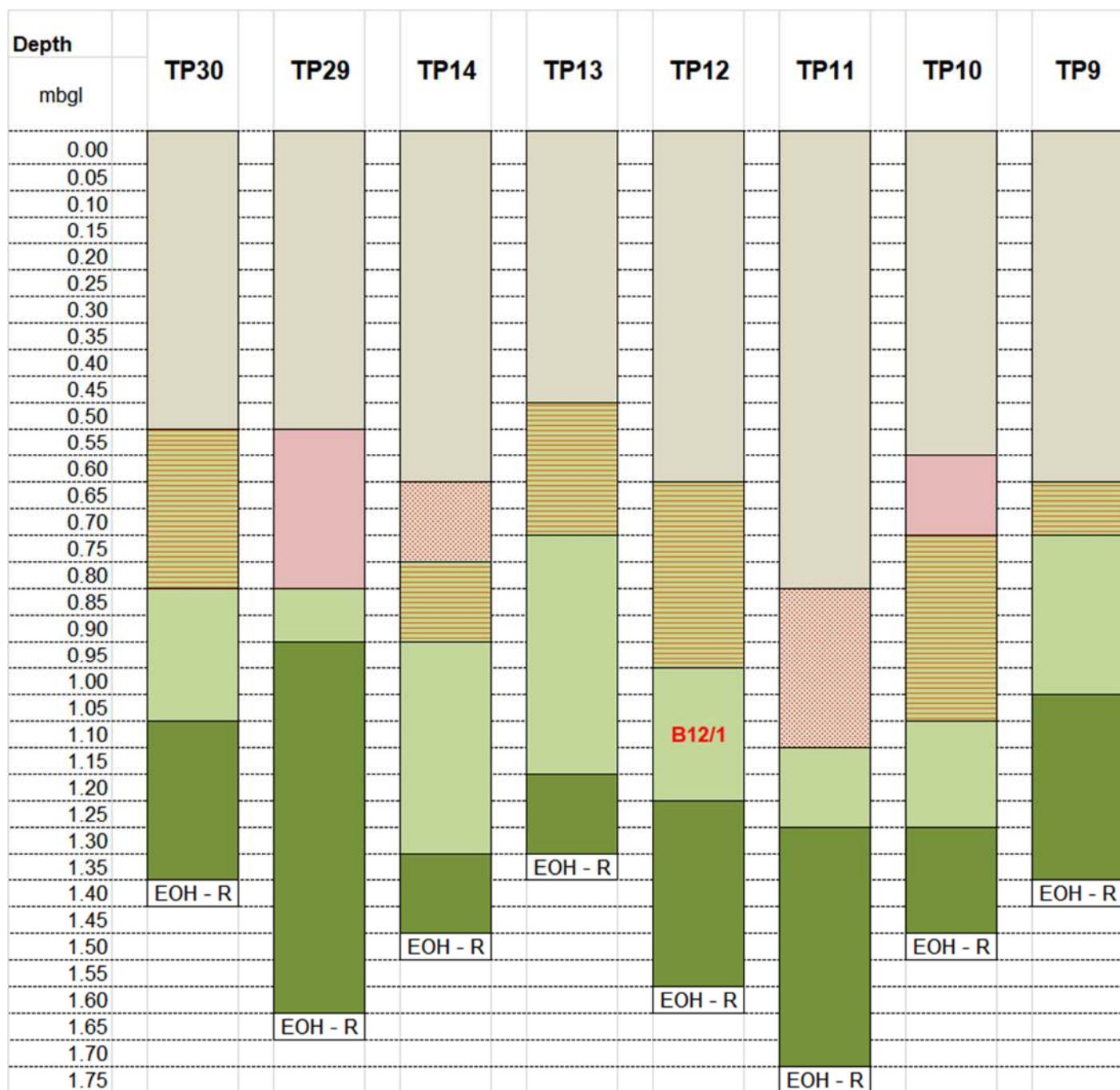







Figure 4: Generalised soil conditions – Section C-D

LEGEND	
	Fill
	Hillwash
	Ferr Res SiltSt
	Residual Siltstone
	Siltstone Bedrock

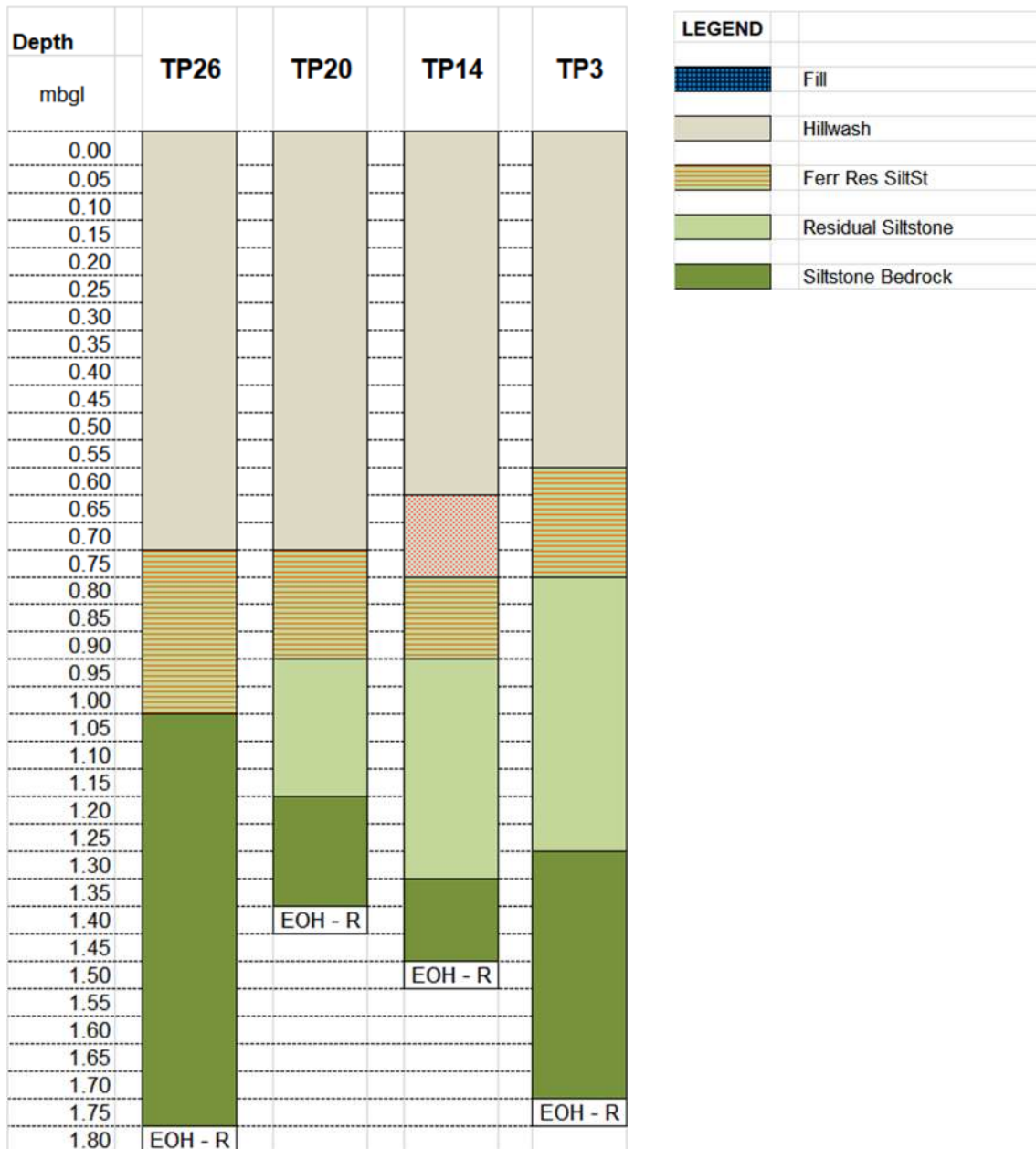


Figure 5: Generalised soil conditions – Section E-F

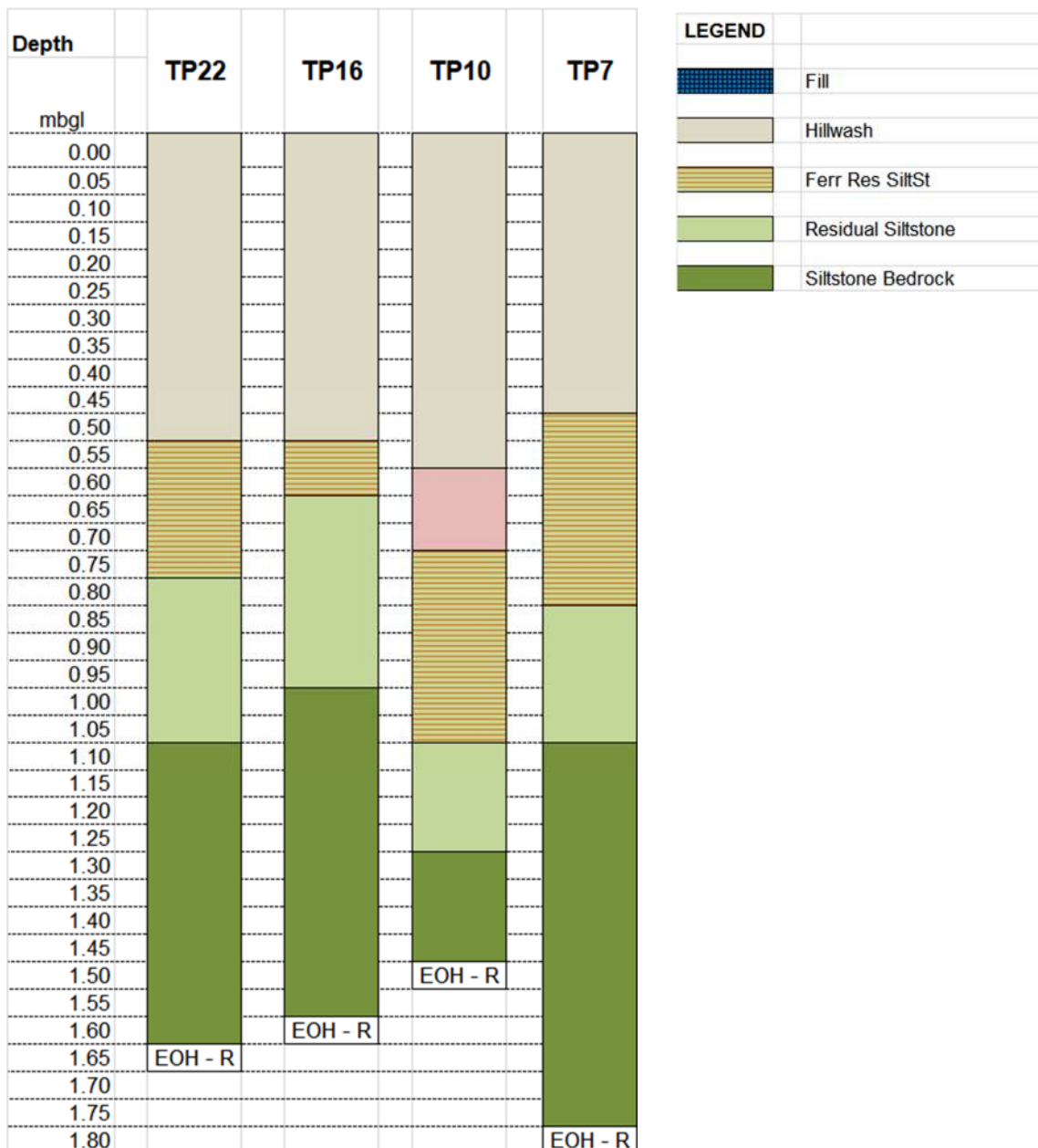


Figure 6: Generalised soil conditions – Section G-H

Materials Sampling

Selected samples were taken of selected soil material for detailed analysis. The results of the samples are still pending and will be discussed and reported in the final report.

Groundwater Occurrences

No groundwater seepage was encountered in any of excavated test pits.

Pedogenic soil in the form of ferricrete was encountered all the test pits. The pedogenic soil material is indicative that the soils are poorly drained and that the seasonal occurrence of perched groundwater conditions is highly likely to occur over the site. Suitable subsoil drainage and dampness measures will have to be implemented.

Dynamic Cone Penetrometer (DCP) Testing

DCP testing was conducted adjacent to each of the test pits. The DCP results tables are attached at the end of the document for reference.

Construction materials

No laboratory data is available for classification of the materials. The following conditions are expected, pending laboratory results confirmation:

- The hillwash / colluvium materials are not expected to be suitable to use as platform fill / construction material.
- The residual siltstone (including ferruginised materials) are not expected to be suitable fill platform material as the material is expected to be potentially slightly to moderately expansive and will be prone to heave / shrinkage. If utilised this material will most likely have to be stabilised with the addition of lime to decrease the plasticity.
- The bedrock material is expected to be of G6 to G8 quality and potentially suitable fill platform material. The material is expected to be non-durable and prone to slaking that will result in a decrease in quality if exposed to changing moisture conditions.

Competent Horizon & Foundations

The hillwash and residual siltstone materials (including ferruginised materials) are not suitable as competent founding horizon(s) for the proposed structure due to adverse geotechnical conditions of these materials that will result in differential movement.

The moderately to slightly weathered siltstone bedrock material on which excavation with the TLB-type excavator refused is a competent foundation horizon for the proposed structure. The depth to this competent horizon ranges between 1.15 and 1.90 mbgl (mean 1.52 mbgl). It is therefore recommended that the structure be founded on this material. Other alternatives can be discussed and will depend on laboratory analysis results of the materials.

You are welcome to contact me if you have any comments or queries. The final report will be compiled as soon as analysis results have been obtained and processed.

Kind regards,



FN DE JAGER Pr.Sci.Nat; MSAIEG;
Principal Engineering Geologist
Director

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B1	
CLIENT:	BVI Border	LATITUDE:	S33.05820		
CONTRACTOR:	Ru+ Plant Hire	LONGITUDE:	E27.85056		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	45 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, dark brown, in profile dusky brown, stiff, micro-shattered, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm to stiff, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800			
900			
1000		Moist, yellow brown, in profile khaki blotched brown, firm, inherent, sandy clay with frequent gravel. RESIDUAL SILTSTONE.	
1100			
1200			
1300		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1400			
1500			
1600			
1700			
1800	COH	Excavation refused on hard rock MUDSTONE BEDROCK.	
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B2	
CLIENT:	BVI Border	LATITUDE:	S33.05806		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85136		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, dark brown, in profile dusky brown, stiff, micro-shattered, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm to stiff, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800			
900			
1000		Moist, yellow brown, in profile khaki blotched brown, firm, inherent, sandy clay with frequent gravel. RESIDUAL SILTSTONE.	
1100			
1200			
1300			
1400			
1500		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1600			
1700	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B3	
CLIENT:	BVI Border	LATITUDE:	S33.05789		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85179		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, dark grey, in profile dark brown, stiff, micro-shattered, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm to stiff, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800		Moist, yellow brown, in profile brown blotched khaki, firm, inherent, sandy clay with frequent gravel. RESIDUAL SILTSTONE.	
900			
1000			
1100			
1200			
1300		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1400			
1500		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1600			
1700	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes:

- No seepage
- Good sidewall stability
- No sample taken

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B4**

CLIENT: BVI Border

LATITUDE: 33.05772

CONTRACTOR: Ru+ Plant Hire

LONGITUDE: E27.85215

DATE EXCAVATED: 21 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 56 m am sl

DATE PROFILED: 21 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, dark grey, in profile dark brown, stiff, micro-shattered, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm to stiff, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800			
900		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1000			
1100			
1200	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1300			
1400			
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

No sample taken

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B5**

CLIENT: BVI Border

LATITUDE: S33.05746

CONTRACTOR: Ru+ Plant Hire

LONGITUDE: E27.85253

DATE EXCAVATED: 21 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 56 m am sl

DATE PROFILED: 21 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, dark grey, in profile dark brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm to stiff, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800			
900		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1000			
1100			
1200		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1400			
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

No sample taken

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B6**

CLIENT: BVI Border

LATITUDE: S33.05740

CONTRACTOR: Ru+Plant Hire

LONGITUDE: E27.85288

DATE EXCAVATED: 21 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 56 m amsl

DATE PROFILED: 21 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, dark grey, in profile dark brown, stiff, intact, clayey sand with scattered gravel. Roots. FILL.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay. RESIDUAL SILTSTONE.	
900			
1000			
1100		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1200			
1300			
1400			
1500		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1600			
1700			
1800	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B7	
CLIENT:	BVI Border	LATITUDE:	S33.05722		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85319		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m amsl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700			
800			
900		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay. RESIDUAL SILTSTONE.	
1000			
1100		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1200			
1300		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1400			
1500			
1600			
1700			
1800	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B8	
CLIENT:	BVI Border	LATITUDE:	S33.05701		
CONTRACTOR:	Ru+ Plant Hire	LONGITUDE:	E27.85358		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600			
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay with frequent ferricrete nodules and subrounded gravel and cobbles. FERRUGINISED RESIDUAL SILTSTONE / PEBBLE MARKER HORIZON.	B8/1
900			
1000			
1100		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay. RESIDUAL SILTSTONE.	
1200			
1300		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1400			
1500			
1600			
1700		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1800			
1900	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes:

- No seepage
- Good sidewall stability
- 1 disturbed sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B9	
CLIENT:	BVI Border	LATITUDE:	S33.05757		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85333		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay. RESIDUAL SILTSTONE.	
800			
900			
1000		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1100			
1200			
1300			
1400	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B10	
CLIENT:	BVI Border	LATITUDE:	S33.05673		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85290		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay with frequent ferricrete nodules and subrounded gravel. PEBBLE MARKER HORIZON.	
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, sandy clay with frequent ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
800			
900			
1000			
1100		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay. RESIDUAL SILTSTONE.	
1200			
1300		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1400			
1500	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

B10

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B11	
CLIENT:	BVI Border	LATITUDE:	S33.05633		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85251		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	21 June 2018		
		DATE PROFILED:	21 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600			
700			
800		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand with scattered ferricrete nodules. Roots. FERRUGINISED HILLWASH.	
900			
1000			
1100		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay. RESIDUAL SILTSTONE.	
1200			
1300		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1400			
1500			
1600			
1700	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B12	
CLIENT:	BVI Border	LATITUDE:	S33.05702		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85211		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800			
900			
1000		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
1100			
1200		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1300			
1400			
1500		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes:

- No seepage
- Good sidewall stability
- 1 disturbed sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B13	
CLIENT:	BVI Border	LATITUDE:	S33.05721		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85181		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	56 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
800			
900			
1000			
1100			
1200		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300	CDH	Excavation refused on hard rock SILTSTONE BEDROCK	
1400			
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B14**

CLIENT: BVI Border

LATITUDE: 33.05747

CONTRACTOR: Ru+ Plant Hire

LONGITUDE: E27.85143

DATE EXCAVATED: 22 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 56 m am sl

DATE PROFILED: 22 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand scattered ferricrete nodules. Roots. FERRUGINISED HILLWASH.	
700			
800		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
900			
1000		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
1100			
1200			
1300			
1400		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1500	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

No sample taken

B14

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B15**

CLIENT: BVI Border

LATITUDE: S33.05610

CONTRACTOR: Ru+Plant Hire

LONGITUDE: E27.85302

DATE EXCAVATED: 22 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 53 m amsl

DATE PROFILED: 22 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand with scattered gravel. Roots. FILL.	
100			
200		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
800			
900		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1000			
1100			
1200		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300			
1400			
1500			
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

No sample taken

B15

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B16	
CLIENT:	BVI Border	LATITUDE:	S33.05626		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85265		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	55 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
550		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
600			
650		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
700			
800			
900			
1000		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1100			
1200			
1300			
1400		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1500			
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B17	
CLIENT:	BVI Border	LATITUDE:	S33.05639		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85221		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	55 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
800			
900		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1000			
1100			
1200		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300			
1400			
1500			
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B18	
CLIENT:	BVI Border	LATITUDE:	S33.05650		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85182		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	62 mm sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
900			
1000		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1100			
1200		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300			
1400			
1500			
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

B18

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B19**

CLIENT: BVI Border

LATITUDE: 33.05672

CONTRACTOR: Ru+ Plant Hire

LONGITUDE: E27.85146

DATE EXCAVATED: 22 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 64 m amsl

DATE PROFILED: 22 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. FERRUGINISED RESIDUAL SILTSTONE.	
500			
600			
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
900			
1000			
1100			
1200		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300			
1400	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

No sample taken

B19

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B20	
CLIENT:	BVI Border	LATITUDE:	S33.05686		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.8514615		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600			
700			
800		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
900			
1000		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
1100			
1200		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300			
1400	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

B20

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B21	
CLIENT:	BVI Border	LATITUDE:	S33.05560		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85269		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
800			B2 1/1
900			
1000			
1100		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1200			
1300			
1400			
1500	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
1 disturbed sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B22	
CLIENT:	BVI Border	LATITUDE:	S33.05576		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85229		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
800			
900			
1000			
1100		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1200			
1300			
1400		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1500			
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B23	
CLIENT:	BVI Border	LATITUDE:	S33.05589		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85184		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	B23/1
100		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
600			
700		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
800			
900			
1000		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1100			
1200			
1300			
1400	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes:

- No seepage
- Good sidewall stability
- 1 disturbed sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B24	
CLIENT:	BVI Border	LATITUDE:	S33.05608		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85148		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
900			
1000		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1100			
1200			
1300			
1400	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B25	
CLIENT:	BVI Border	LATITUDE:	S33.05634		
CONTRACTOR:	Rus Plant Hire	LONGITUDE:	E27.85111		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
800			
900			
1000		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1100			
1200			
1300			
1400			
1500			
1600			
1700	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B26	
CLIENT:	BVI Border	LATITUDE:	33.05642	DATE EXCAVATED:	22 June 2018
CONTRACTOR:	Ru+ Plant Hire	LONGITUDE:	27.85065	DATE PROFILED:	22 June 2018
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600			
700			
800		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules and gravel. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
900			
1000			
1100		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1200			
1300			
1400			
1500			
1600			
1700			
1800	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B27	
CLIENT:	BVI Border	LATITUDE:	933.05634		
CONTRACTOR:	Ru+ Plant Hire	LONGITUDE:	E27.85111		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
900			
1000			
1100			
1200			
1300			
1400		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1500	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B28	
CLIENT:	BVI Border	LATITUDE:	S33.05679		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.84991		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	22 June 2018		
		DATE PROFILED:	22 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
600			
700			
800		Moist, yellow brown, in profile yellow brown blotched brown, firm, shattered, sandy clay. RESIDUAL SILTSTONE.	
900			
1000			
1100			
1200			
1300		Moist, yellow brown, in profile yellow brown blotched brown, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
1400			
1500			
1600			
1700		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1800	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B29	
CLIENT:	BVI Border	LATITUDE:	S33.05756		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85109		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m amsl		
		DATE EXCAVATED:	26 June 2018		
		DATE PROFILED:	26 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules and rounded gravel. Roots. PEBBLE MARKER HORIZON.	
600			
700			
800		Moist, yellow brown, in profile brown blotched khaki, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
900			
1000		Khaki, highly weathered, fine grained, medium jointed, soft rock. Joints are narrow, stained and smooth. SOFT SILTSTONE BEDROCK.	
1100			
1200			
1300		Khaki, moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1400			
1500			
1600	COH	Excavation refused on hard rock SILTSTONE BEDROCK.	
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B30	
CLIENT:	BVI Border	LATITUDE:	S33.05775		
CONTRACTOR:	Rui Plant Hire	LONGITUDE:	E27.85070		
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		
		DATE EXCAVATED:	26 June 2018		
		DATE PROFILED:	26 June 2018		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with scattered ferricrete nodules. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
600			
700			
800		Moist, yellow brown, in profile brown blotched khaki, firm, inherent, sandy clay with frequent siltstone gravel. RESIDUAL SILTSTONE.	
900			
1000			
1100		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1200			
1300			
1400	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes: No seepage
Good sidewall stability
No sample taken

PROJECT: GTEC East London IDZ Platforms				TRIAL PIT NO.: B31	
CLIENT:	BVI Border	LATITUDE:	33.057 10	DATE EXCAVATED:	26 June 2018
CONTRACTOR:	Ru+ Plant Hire	LONGITUDE:	E27.85080	DATE PROFILED:	26 June 2018
MACHINE TYPE:	JCB 3CX 4X4 TLB-type excavator	ELEVATION:	64 m am sl		

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	B3 1/1
100			
200			
300			
400		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with frequent ferricrete nodules and gravel. Roots. FERRUGINISED RESIDUAL SILTSTONE.	
500			
600			
700			
800		Abundant siltstone gravel and cobbles moderately densely packed in a matrix of Moist, yellow brown, sandy clay. Overall consistency is stiff. RESIDUAL SILTSTONE.	B3 1/2 B3 1/2
900			
1000			
1100			
1200		Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1300	COH	Excavation refused on hard rock SILTSTONE BEDROCK	
1400			
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			



AGES OMEGA (PTY) LTD

Notes:

- No seepage
- Good sidewall stability
- 2 disturbed and 1 bulk sample taken

PROJECT: GTEC East London IDZ Platforms**TRIAL PIT NO.: B32**

CLIENT: BVI Border

LATITUDE: S33.05724

CONTRACTOR: Ru+ Plant Hire

LONGITUDE: E27.85040

DATE EXCAVATED: 26 June 2018

MACHINE TYPE: JCB 3CX 4X4 TLB-type excavator

ELEVATION: 64 m amsl

DATE PROFILED: 26 June 2018

Depth	Lithology	Description	Sampling
0		Slightly moist, brown, in profile dusky brown, stiff, intact, clayey sand. Roots. HILLWASH.	
100			
200			
300			
400			
500			
550		Moist, yellow brown, in profile yellow brown speckled black, firm, micro-shattered, sandy clay with frequent ferricrete nodules and gravel. Roots. FERRUGINISED RESIDUAL SILTSTONE.	B32/1
600			
700			
800		Abundant siltstone gravel and cobbles moderately densely packed in a matrix of Moist, yellow brown, sandy clay. Overall consistency is stiff. RESIDUAL SILTSTONE.	
900			
1000			
1100			
1150	CDH	Khaki, highly to moderately weathered, fine grained, medium jointed, moderately hard to hard rock. Joints are narrow, stained and smooth. SILTSTONE BEDROCK.	
1200		Excavation refused on hard rock SILTSTONE BEDROCK	
1300			
1400			
1500			
1600			
1700			
1800			
1900			
2000			
2100			
2200			
2300			
2400			
2500			
2600			
2700			
2800			
2900			
3000			

**AGES OMEGA (PTY) LTD****Notes:**

No seepage

Good sidewall stability

1 bulk sample taken

B32

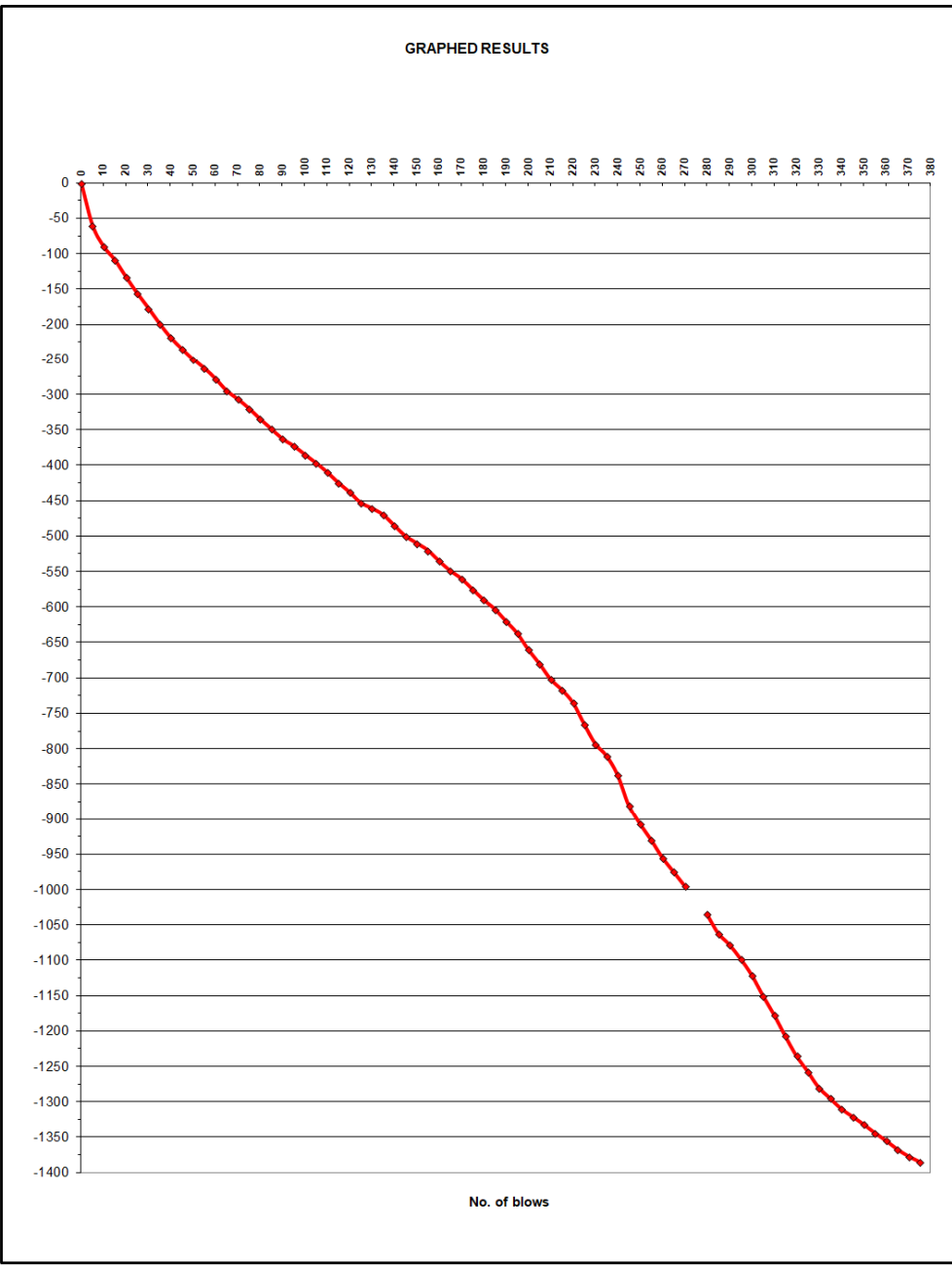
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: EAST LONDON IDZ PLATFORM B

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 1				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	15	0	0.0		
5	75	-60	12.0	193	17
10	105	-90	6.0	411	42
15	124	-109	3.8	677	75
20	148	-133	4.8	525	56
25	171	-156	4.6	550	59
30	192	-177	4.2	607	66
35	214	-199	4.4	577	62
40	234	-219	4.0	640	70
45	250	-235	3.2	816	94
50	265	-250	3.0	876	102
55	278	-263	2.6	1023	122
60	293	-278	3.0	876	102
65	310	-295	3.4	764	87
70	322	-307	2.4	1117	135
75	335	-320	2.6	1023	122
80	350	-335	3.0	876	102
85	364	-349	2.8	944	111
90	378	-363	2.8	944	111
95	388	-373	2.0	1362	170
100	400	-385	2.4	1117	135
105	412	-397	2.4	1117	135
110	425	-410	2.6	1023	122
115	440	-425	3.0	876	102
120	453	-438	2.6	1023	122
125	468	-453	3.0	876	102
130	476	-461	1.6	1737	226
135	485	-470	1.8	1528	194
140	500	-485	3.0	876	102
145	515	-500	3.0	876	102
150	525	-510	2.0	1362	170
155	535	-520	2.0	1362	170
160	550	-535	3.0	876	102
165	564	-549	2.8	944	111
170	575	-560	2.2	1228	151
175	590	-575	3.0	876	102
180	605	-590	3.0	876	102
185	618	-603	2.6	1023	122
190	635	-620	3.4	764	87
195	652	-637	3.4	764	87
200	675	-660	4.6	550	59
205	695	-680	4.0	640	70
210	717	-702	4.4	577	62
215	732	-717	3.0	876	102
220	750	-735	3.6	718	81
225	780	-765	6.0	411	42
230	808	-793	5.6	443	46
235	825	-810	3.4	764	87
240	852	-837	5.4	461	48
245	895	-880	8.6	278	27
250	922	-907	5.4	461	48
255	945	-930	4.6	550	59
260	970	-955	5.0	502	53
265	990	-975	4.0	640	70
270	1010	-995	4.0	640	70
275					
280	1035	-1035	207.0	9	0
285	1062	-1062	5.4	461	48
290	1078	-1078	3.2	816	94
295	1098	-1098	4.0	640	70
300	1121	-1121	4.6	550	59
305	1150	-1150	5.8	427	44
310	1177	-1177	5.4	461	48
315	1207	-1207	6.0	411	42
320	1235	-1235	5.6	443	46
325	1257	-1257	4.4	577	62
330	1280	-1280	4.6	550	59
335	1295	-1295	3.0	876	102
340	1310	-1310	3.0	876	102
345	1321	-1321	2.2	1228	151
350	1332	-1332	2.2	1228	151
355	1344	-1344	2.4	1117	135
360	1355	-1355	2.2	1228	151
365	1367	-1367	2.4	1117	135
370	1377	-1377	2.0	1362	170
375	1385	-1385	1.6	1737	226
380					



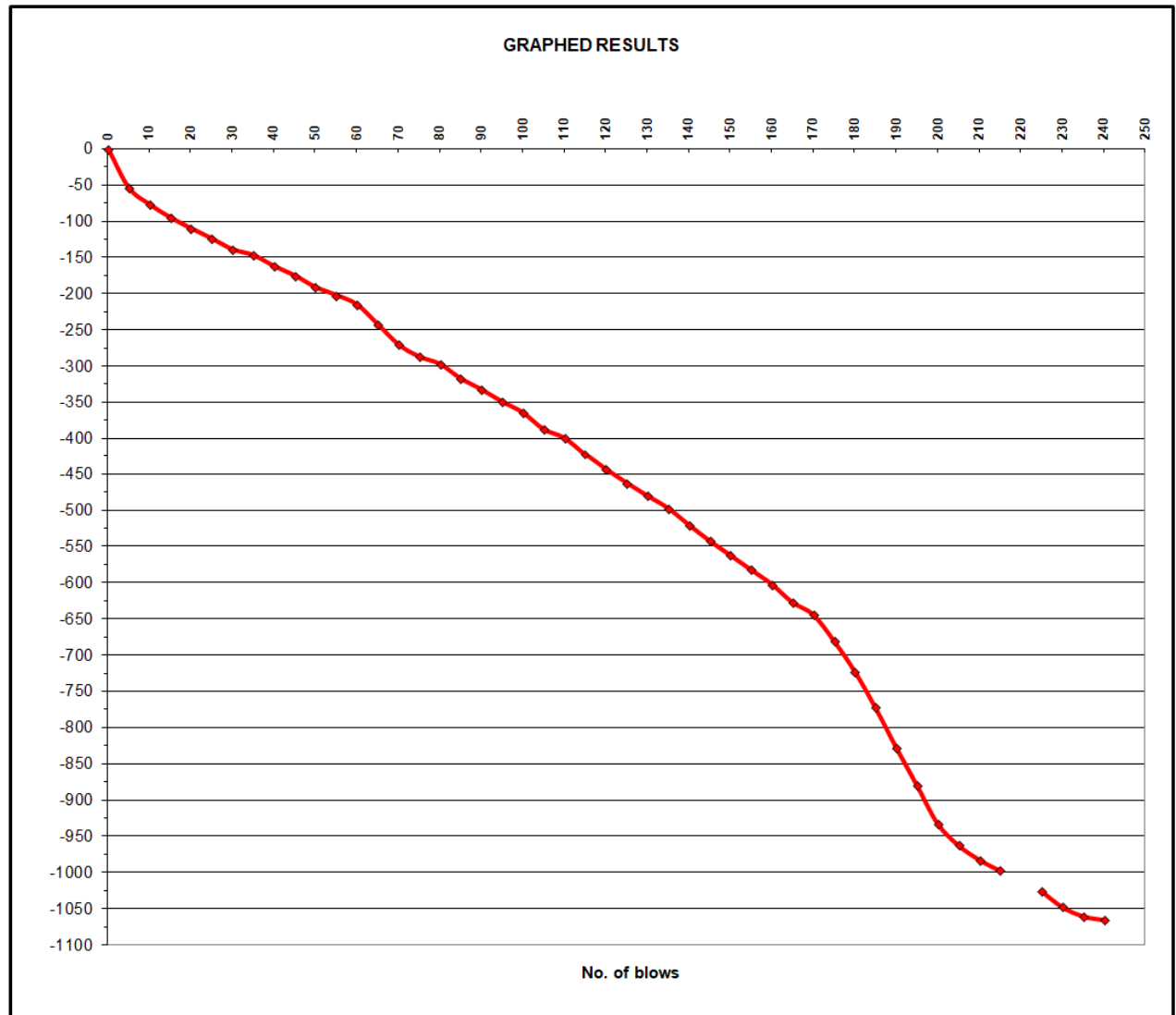
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 2				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	8	0	0.0		
5	62	-54	10.8	217	20
10	85	-77	4.6	550	59
15	103	-95	3.6	718	81
20	118	-110	3.0	876	102
25	132	-124	2.8	944	111
30	147	-139	3.0	876	102
35	155	-147	1.6	1737	226
40	170	-162	3.0	876	102
45	183	-175	2.6	1023	122
50	199	-191	3.2	816	94
55	210	-202	2.2	1228	151
60	223	-215	2.6	1023	122
65	250	-242	5.4	461	48
70	278	-270	5.6	443	46
75	295	-287	3.4	764	87
80	305	-297	2.0	1362	170
85	325	-317	4.0	640	70
90	340	-332	3.0	876	102
95	357	-349	3.4	764	87
100	372	-364	3.0	876	102
105	395	-387	4.6	550	59
110	407	-399	2.4	1117	135
115	430	-422	4.6	550	59
120	451	-443	4.2	607	66
125	470	-462	3.8	677	75
130	488	-480	3.6	718	81
135	505	-497	3.4	764	87
140	528	-520	4.6	550	59
145	550	-542	4.4	577	62
150	570	-562	4.0	640	70
155	590	-582	4.0	640	70
160	610	-602	4.0	640	70
165	635	-627	5.0	502	53
170	652	-644	3.4	764	87
175	688	-680	7.2	337	33
180	730	-722	8.4	285	27
185	780	-772	10.0	236	22
190	835	-827	11.0	212	20
195	887	-879	10.4	226	21
200	940	-932	10.6	221	20
205	970	-962	6.0	411	42
210	990	-982	4.0	640	70
215	1005	-997	3.0	876	102
220					
225	1025	-1025	205.0	9	0
230	1047	-1047	4.4	577	62
235	1060	-1060	2.6	1023	122
240	1065	-1065	1.0	2900	410
245					



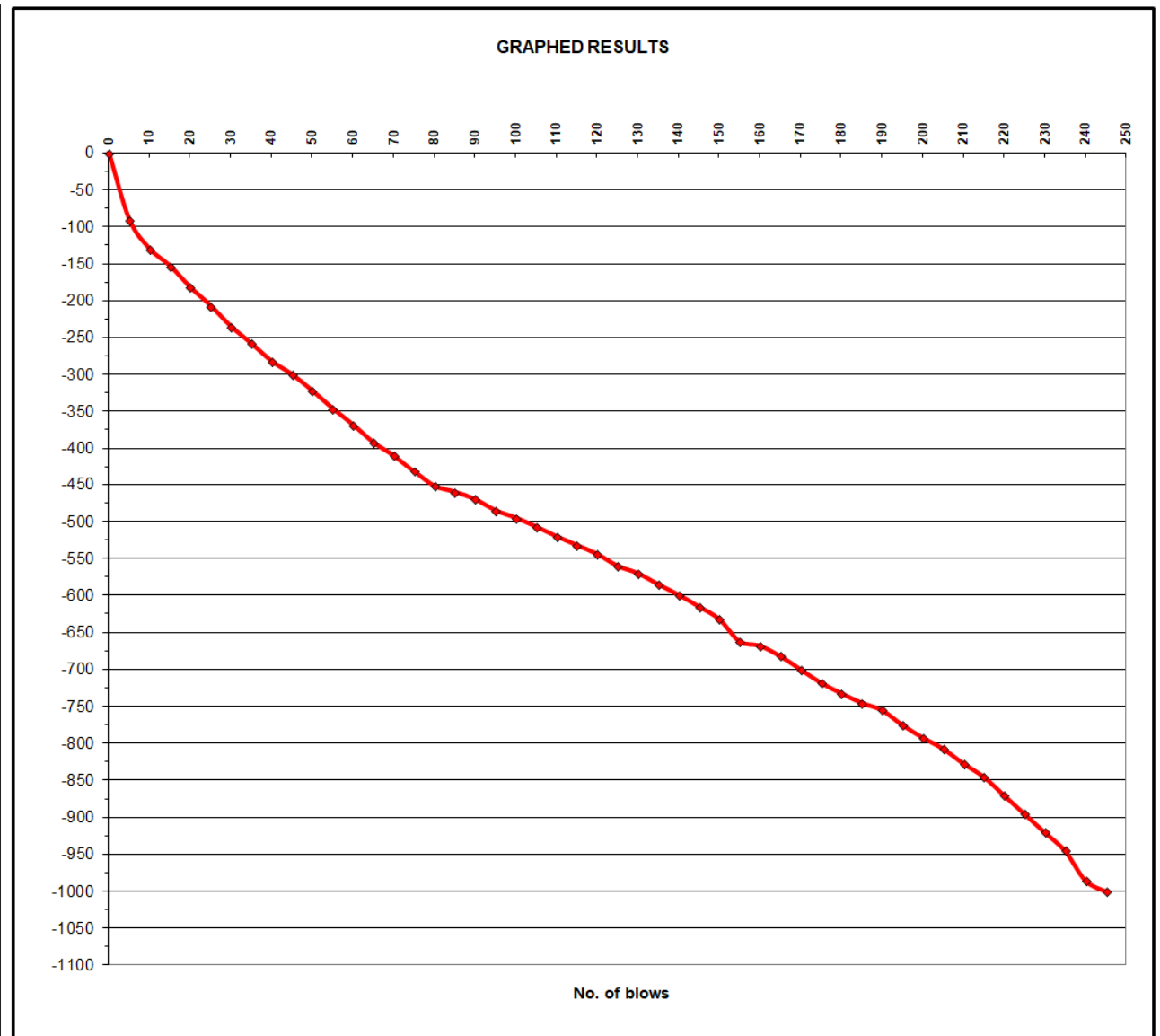
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 3				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	100	-90	18.0	124	10
10	140	-130	8.0	301	29
15	163	-153	4.6	550	59
20	192	-182	5.8	427	44
25	217	-207	5.0	502	53
30	245	-235	5.6	443	46
35	268	-258	4.6	550	59
40	292	-282	4.8	525	56
45	310	-300	3.6	718	81
50	332	-322	4.4	577	62
55	356	-346	4.8	525	56
60	378	-368	4.4	577	62
65	402	-392	4.8	525	56
70	420	-410	3.6	718	81
75	442	-432	4.4	577	62
80	462	-452	4.0	640	70
85	470	-460	1.6	1737	226
90	480	-470	2.0	1362	170
95	495	-485	3.0	876	102
100	505	-495	2.0	1362	170
105	517	-507	2.4	1117	135
110	530	-520	2.6	1023	122
115	542	-532	2.4	1117	135
120	554	-544	2.4	1117	135
125	570	-560	3.2	816	94
130	580	-570	2.0	1362	170
135	595	-585	3.0	876	102
140	609	-599	2.8	944	111
145	625	-615	3.2	816	94
150	642	-632	3.4	764	87
155	672	-662	6.0	411	42
160	678	-668	1.2	2377	325
165	692	-682	2.8	944	111
170	710	-700	3.6	718	81
175	728	-718	3.6	718	81
180	742	-732	2.8	944	111
185	755	-745	2.6	1023	122
190	765	-755	2.0	1362	170
195	785	-775	4.0	640	70
200	802	-792	3.4	764	87
205	817	-807	3.0	876	102
210	837	-827	4.0	640	70
215	855	-845	3.6	718	81
220	880	-870	5.0	502	53
225	905	-895	5.0	502	53
230	930	-920	5.0	502	53
235	955	-945	5.0	502	53
240	995	-985	8.0	301	29
245	1010	-1000	3.0	876	102
250					



ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 4				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	5	0	0.0		
5	55	-50	10.0	236	22
10	88	-83	6.6	371	37
15	115	-110	5.4	461	48
20	140	-135	5.0	502	53
25	162	-157	4.4	577	62
30	182	-177	4.0	640	70
35	200	-195	3.6	718	81
40	215	-210	3.0	876	102
45	230	-225	3.0	876	102
50	247	-242	3.4	764	87
55	263	-258	3.2	816	94
60	280	-275	3.4	764	87
65	293	-288	2.6	1023	122
70	310	-305	3.4	764	87
75	322	-317	2.4	1117	135
80	335	-330	2.6	1023	122
85	350	-345	3.0	876	102
90	363	-358	2.6	1023	122
95	378	-373	3.0	876	102
100	405	-400	5.4	461	48
105	420	-415	3.0	876	102
110	430	-425	2.0	1362	170
115	447	-442	3.4	764	87
120	470	-465	4.6	550	59
125	478	-473	1.6	1737	226
130	492	-487	2.8	944	111
135	505	-500	2.6	1023	122
140	515	-510	2.0	1362	170
145	527	-522	2.4	1117	135
150	540	-535	2.6	1023	122
155	550	-545	2.0	1362	170
160	560	-555	2.0	1362	170
165	572	-567	2.4	1117	135
170	580	-575	1.6	1737	226
175					
180					
185					
190					
195					
200					



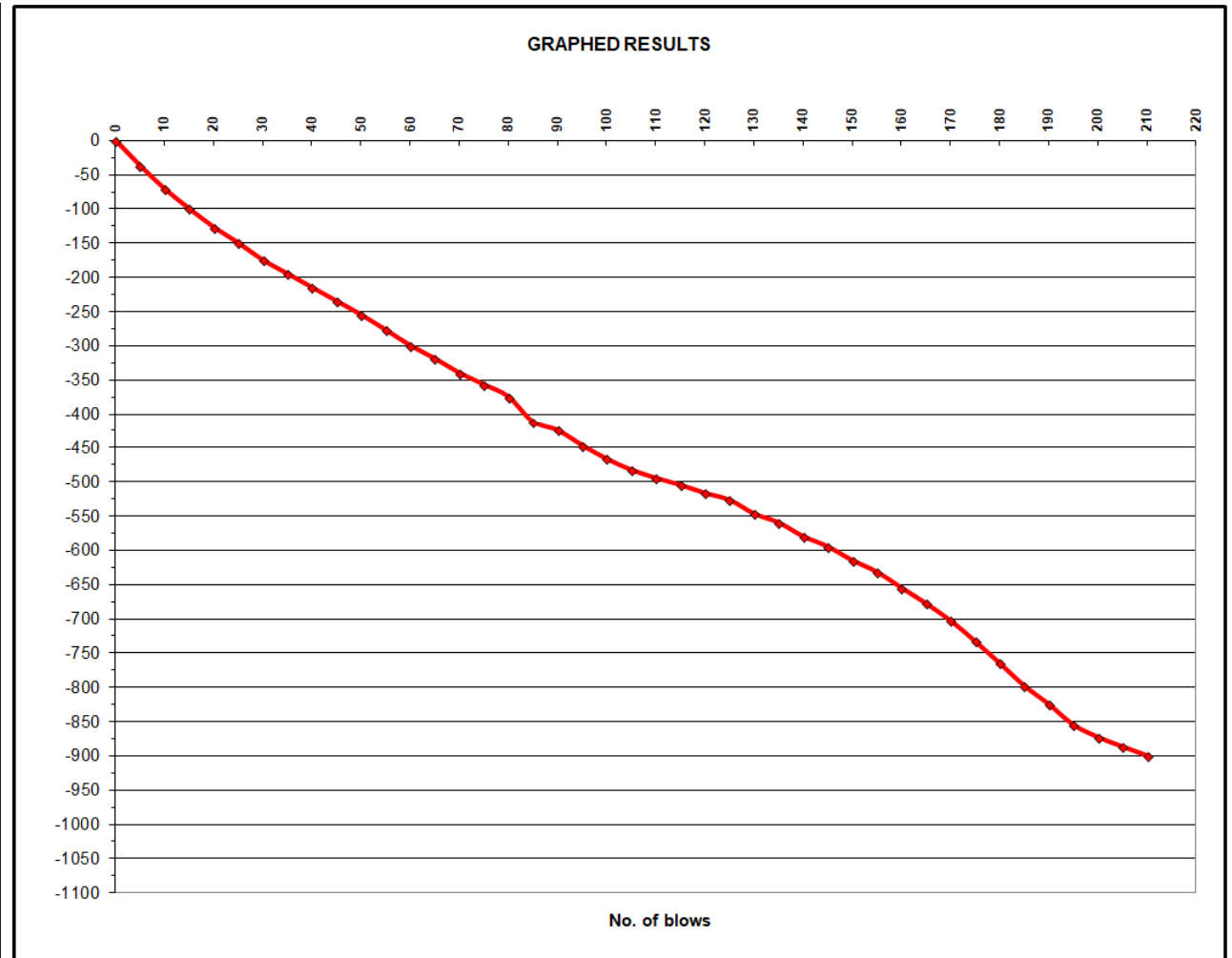
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 5				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	5	0	0.0		
5	42	-37	7.4	327	32
10	76	-71	6.8	359	36
15	105	-100	5.8	427	44
20	132	-127	5.4	461	48
25	155	-150	4.6	550	59
30	180	-175	5.0	502	53
35	200	-195	4.0	640	70
40	220	-215	4.0	640	70
45	240	-235	4.0	640	70
50	260	-255	4.0	640	70
55	282	-277	4.4	577	62
60	305	-300	4.6	550	59
65	324	-319	3.8	677	75
70	345	-340	4.2	607	66
75	362	-357	3.4	764	87
80	380	-375	3.6	718	81
85	417	-412	7.4	327	32
90	430	-425	2.6	1023	122
95	452	-447	4.4	577	62
100	472	-467	4.0	640	70
105	488	-483	3.2	816	94
110	500	-495	2.4	1117	135
115	510	-505	2.0	1362	170
120	522	-517	2.4	1117	135
125	532	-527	2.0	1362	170
130	552	-547	4.0	640	70
135	565	-560	2.6	1023	122
140	585	-580	4.0	640	70
145	600	-595	3.0	876	102
150	620	-615	4.0	640	70
155	637	-632	3.4	764	87
160	660	-655	4.6	550	59
165	683	-678	4.6	550	59
170	708	-703	5.0	502	53
175	738	-733	6.0	411	42
180	770	-765	6.4	383	39
185	803	-798	6.6	371	37
190	830	-825	5.4	461	48
195	860	-855	6.0	411	42
200	878	-873	3.6	718	81
205	892	-887	2.8	944	111
210	905	-900	2.6	1023	122
215					



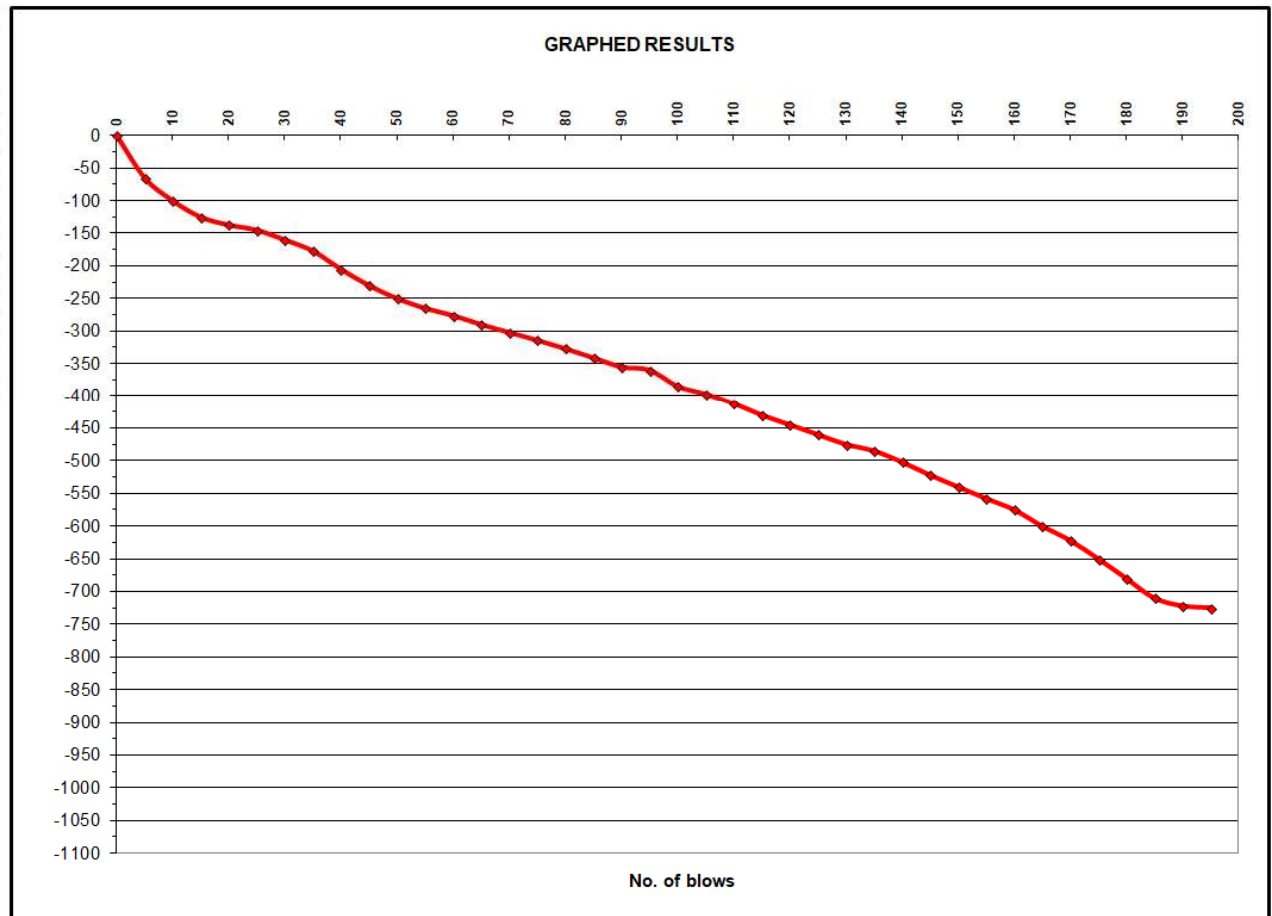
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 6				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	75	-65	13.0	177	16
10	110	-100	7.0	348	35
15	135	-125	5.0	502	53
20	147	-137	2.4	1117	135
25	155	-145	1.6	1737	226
30	170	-160	3.0	876	102
35	187	-177	3.4	764	87
40	215	-205	5.6	443	46
45	240	-230	5.0	502	53
50	260	-250	4.0	640	70
55	275	-265	3.0	876	102
60	286	-276	2.2	1228	151
65	300	-290	2.8	944	111
70	312	-302	2.4	1117	135
75	324	-314	2.4	1117	135
80	337	-327	2.6	1023	122
85	351	-341	2.8	944	111
90	365	-355	2.8	944	111
95	370	-360	1.0	2900	410
100	395	-385	5.0	502	53
105	407	-397	2.4	1117	135
110	422	-412	3.0	876	102
115	440	-430	3.6	718	81
120	455	-445	3.0	876	102
125	470	-460	3.0	876	102
130	485	-475	3.0	876	102
135	495	-485	2.0	1362	170
140	512	-502	3.4	764	87
145	532	-522	4.0	640	70
150	550	-540	3.6	718	81
155	568	-558	3.6	718	81
160	585	-575	3.4	764	87
165	610	-600	5.0	502	53
170	632	-622	4.4	577	62
175	660	-650	5.6	443	46
180	690	-680	6.0	411	42
185	720	-710	6.0	411	42
190	732	-722	2.4	1117	135
195	735	-725	0.6	5061	784
200					



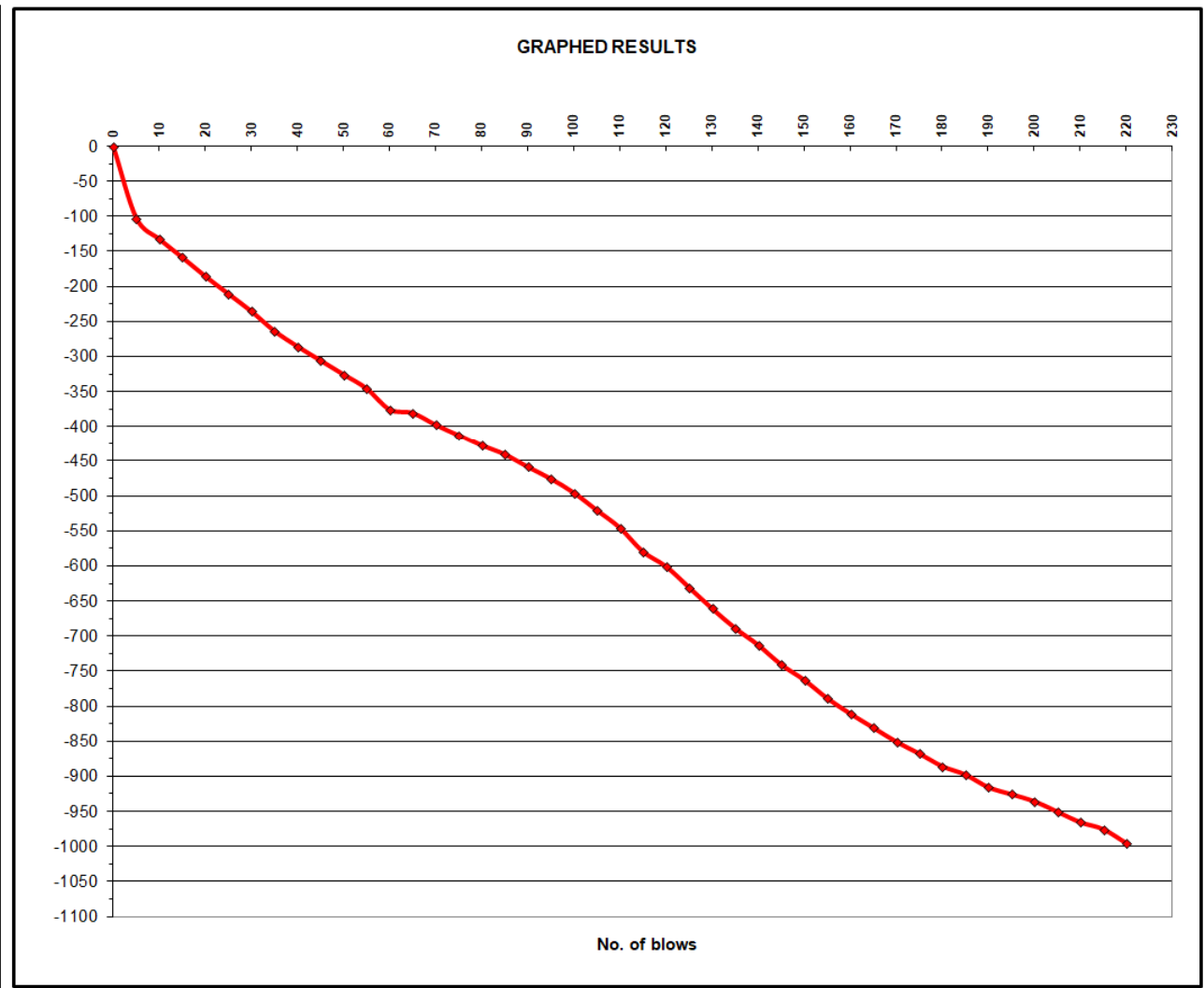
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 7				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	20	0	0.0		
5	122	-102	20.4	108	9
10	152	-132	6.0	411	42
15	178	-158	5.2	481	51
20	205	-185	5.4	461	48
25	230	-210	5.0	502	53
30	255	-235	5.0	502	53
35	283	-263	5.6	443	46
40	305	-285	4.4	577	62
45	325	-305	4.0	640	70
50	345	-325	4.0	640	70
55	365	-345	4.0	640	70
60	395	-375	6.0	411	42
65	400	-380	1.0	2900	410
70	417	-397	3.4	764	87
75	432	-412	3.0	876	102
80	447	-427	3.0	876	102
85	460	-440	2.6	1023	122
90	478	-458	3.6	718	81
95	495	-475	3.4	764	87
100	515	-495	4.0	640	70
105	540	-520	5.0	502	53
110	565	-545	5.0	502	53
115	599	-579	6.8	359	36
120	620	-600	4.2	607	66
125	650	-630	6.0	411	42
130	680	-660	6.0	411	42
135	708	-688	5.6	443	46
140	732	-712	4.8	525	56
145	760	-740	5.6	443	46
150	782	-762	4.4	577	62
155	808	-788	5.2	481	51
160	830	-810	4.4	577	62
165	850	-830	4.0	640	70
170	870	-850	4.0	640	70
175	887	-867	3.4	764	87
180	905	-885	3.6	718	81
185	917	-897	2.4	1117	135
190	935	-915	3.6	718	81
195	945	-925	2.0	1362	170
200	955	-935	2.0	1362	170
205	970	-950	3.0	876	102
210	985	-965	3.0	876	102
215	995	-975	2.0	1362	170
220	1015	-995	4.0	640	70
225					



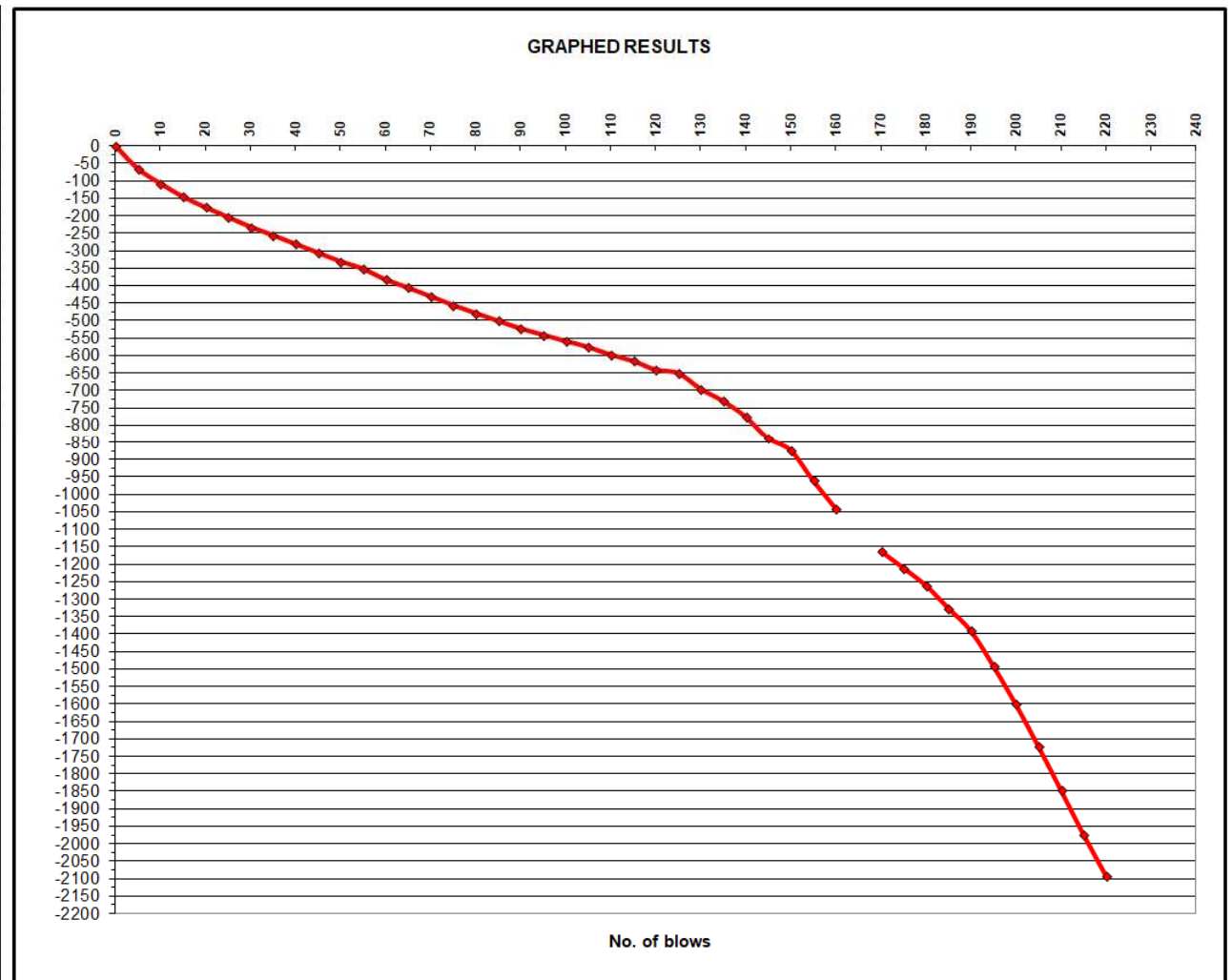
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 8				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	20	0	0.0		
5	85	-65	13.0	177	16
10	127	-107	8.4	285	27
15	165	-145	7.6	318	31
20	195	-175	6.0	411	42
25	223	-203	5.6	443	46
30	251	-231	5.6	443	46
35	275	-255	4.8	525	56
40	300	-280	5.0	502	53
45	325	-305	5.0	502	53
50	350	-330	5.0	502	53
55	371	-351	4.2	607	66
60	402	-382	6.2	397	40
65	425	-405	4.6	550	59
70	450	-430	5.0	502	53
75	475	-455	5.0	502	53
80	498	-478	4.6	550	59
85	520	-500	4.4	577	62
90	542	-522	4.4	577	62
95	560	-540	3.6	718	81
100	578	-558	3.6	718	81
105	595	-575	3.4	764	87
110	617	-597	4.4	577	62
115	635	-615	3.6	718	81
120	660	-640	5.0	502	53
125	670	-650	2.0	1362	170
130	715	-695	9.0	264	25
135	750	-730	7.0	348	35
140	795	-775	9.0	264	25
145	858	-838	12.6	183	16
150	893	-873	7.0	348	35
155	980	-960	17.4	129	11
160	1060	-1040	16.0	141	12
165					
170	1162	-1162	232.4	8	0
175	1210	-1210	9.6	246	23
180	1260	-1260	10.0	236	22
185	1325	-1325	13.0	177	16
190	1390	-1390	13.0	177	16
195	1490	-1490	20.0	111	9
200	1600	-1600	22.0	100	8
205	1720	-1720	24.0	91	7
210	1845	-1845	25.0	87	7
215	1972	-1972	25.4	85	7
220	2090	-2090	23.6	92	7
235					



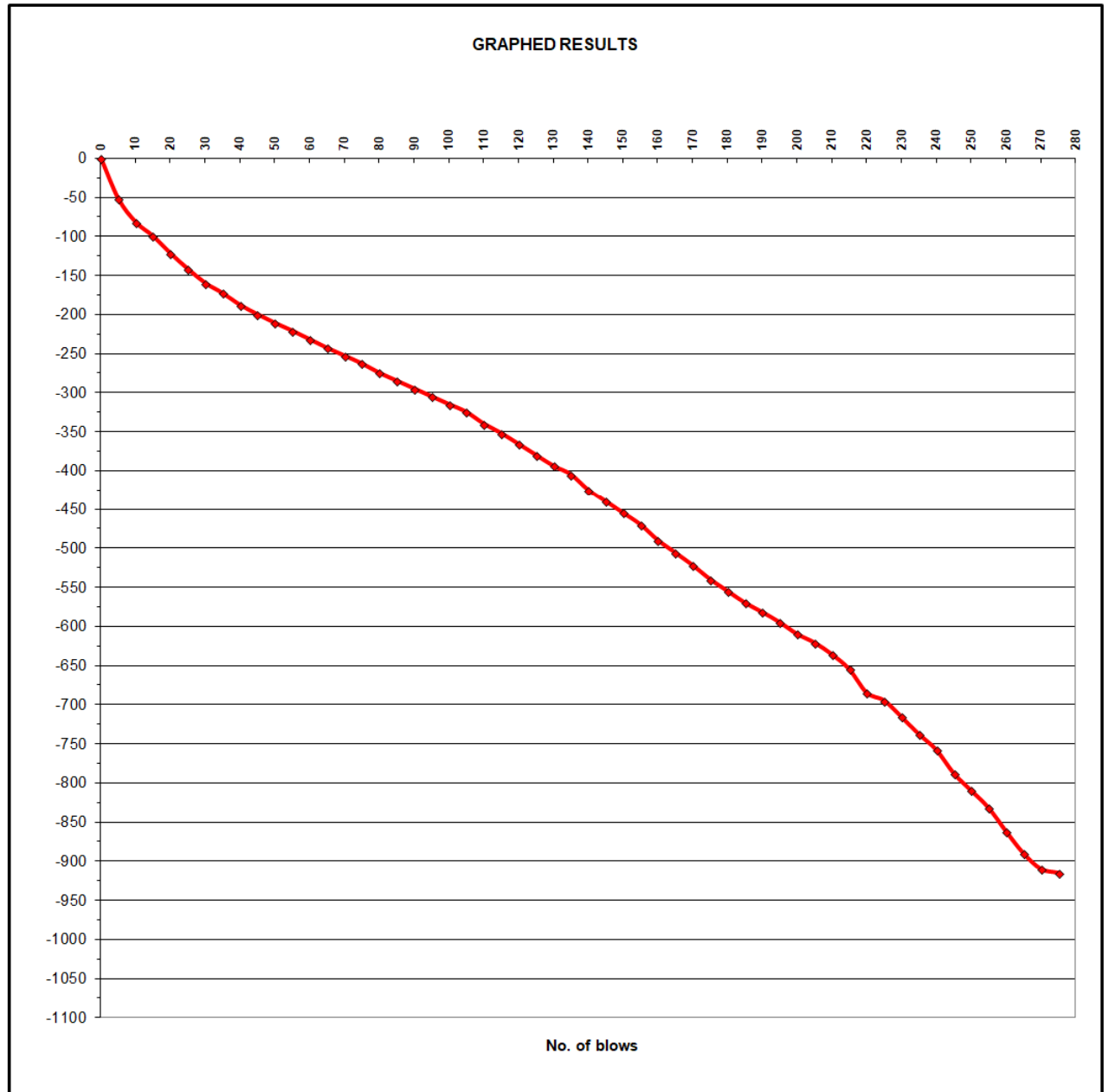
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 9				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	62	-52	10.4	226	21
10	92	-82	6.0	411	42
15	110	-100	3.6	718	81
20	132	-122	4.4	577	62
25	152	-142	4.0	640	70
30	170	-160	3.6	718	81
35	183	-173	2.6	1023	122
40	198	-188	3.0	876	102
45	210	-200	2.4	1117	135
50	221	-211	2.2	1228	151
55	231	-221	2.0	1362	170
60	242	-232	2.2	1228	151
65	253	-243	2.2	1228	151
70	263	-253	2.0	1362	170
75	273	-263	2.0	1362	170
80	285	-275	2.4	1117	135
85	295	-285	2.0	1362	170
90	305	-295	2.0	1362	170
95	315	-305	2.0	1362	170
100	325	-315	2.0	1362	170
105	335	-325	2.0	1362	170
110	350	-340	3.0	876	102
115	362	-352	2.4	1117	135
120	376	-366	2.8	944	111
125	390	-380	2.8	944	111
130	404	-394	2.8	944	111
135	415	-405	2.2	1228	151
140	435	-425	4.0	640	70
145	450	-440	3.0	876	102
150	465	-455	3.0	876	102
155	480	-470	3.0	876	102
160	500	-490	4.0	640	70
165	516	-506	3.2	816	94
170	532	-522	3.2	816	94
175	550	-540	3.6	718	81
180	565	-555	3.0	876	102
185	580	-570	3.0	876	102
190	592	-582	2.4	1117	135
195	605	-595	2.6	1023	122
200	620	-610	3.0	876	102
205	631	-621	2.2	1228	151
210	646	-636	3.0	876	102
215	665	-655	3.8	677	75
220	695	-685	6.0	411	42
225	705	-695	2.0	1362	170
230	726	-716	4.2	607	66
235	748	-738	4.4	577	62
240	768	-758	4.0	640	70
245	798	-788	6.0	411	42
250	820	-810	4.4	577	62
255	842	-832	4.4	577	62
260	872	-862	6.0	411	42
265	900	-890	5.6	443	46
270	920	-910	4.0	640	70
275	925	-915	1.0	2900	410
280					



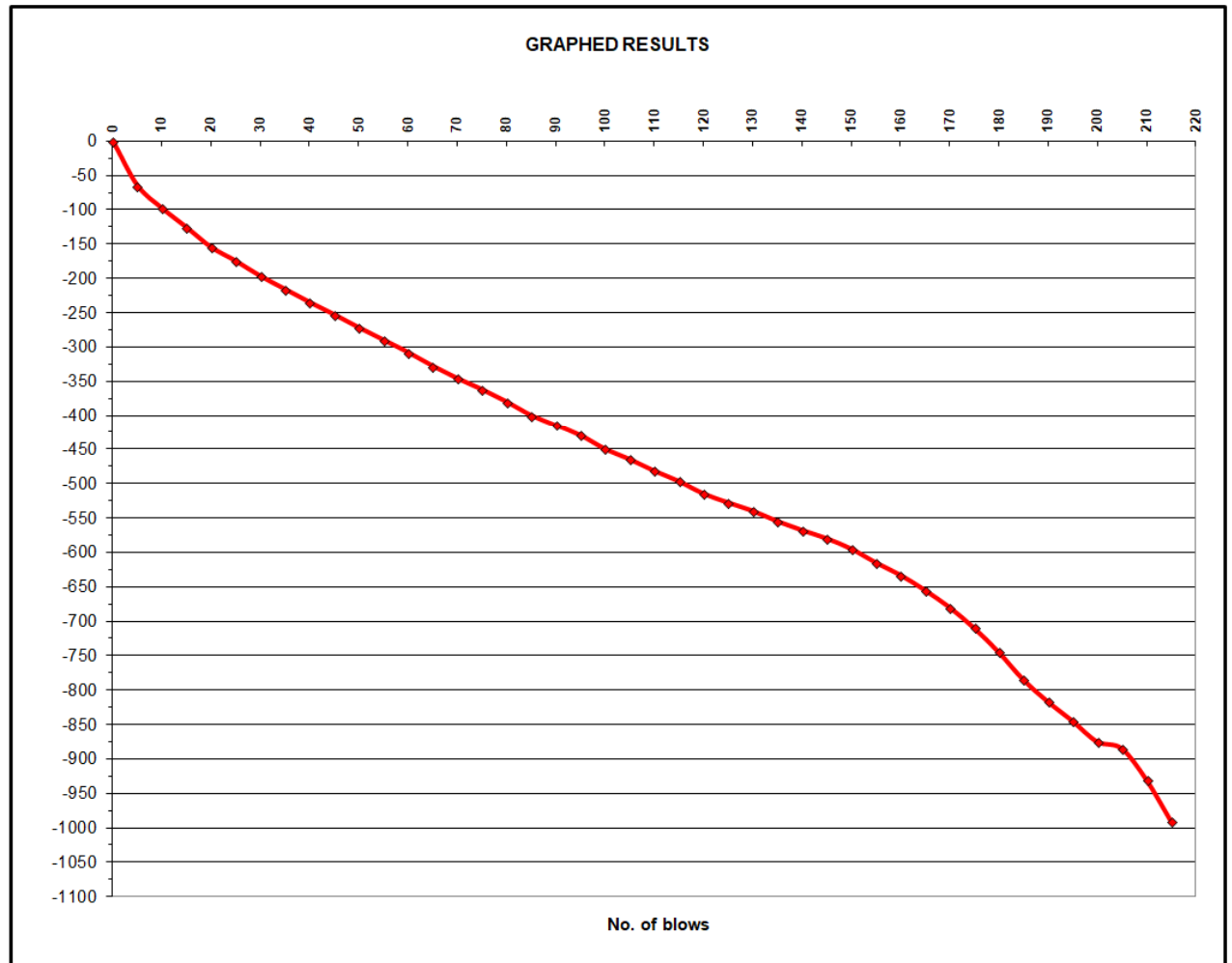
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 10				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	50	0	0.0		
5	115	-65	13.0	177	16
10	148	-98	6.6	371	37
15	176	-126	5.6	443	46
20	205	-155	5.8	427	44
25	225	-175	4.0	640	70
30	247	-197	4.4	577	62
35	266	-216	3.8	677	75
40	285	-235	3.8	677	75
45	303	-253	3.6	718	81
50	322	-272	3.8	677	75
55	340	-290	3.6	718	81
60	358	-308	3.6	718	81
65	378	-328	4.0	640	70
70	396	-346	3.6	718	81
75	412	-362	3.2	816	94
80	430	-380	3.6	718	81
85	450	-400	4.0	640	70
90	465	-415	3.0	876	102
95	480	-430	3.0	876	102
100	500	-450	4.0	640	70
105	515	-465	3.0	876	102
110	532	-482	3.4	764	87
115	547	-497	3.0	876	102
120	565	-515	3.6	718	81
125	578	-528	2.6	1023	122
130	590	-540	2.4	1117	135
135	605	-555	3.0	876	102
140	618	-568	2.6	1023	122
145	630	-580	2.4	1117	135
150	645	-595	3.0	876	102
155	665	-615	4.0	640	70
160	683	-633	3.6	718	81
165	705	-655	4.4	577	62
170	730	-680	5.0	502	53
175	760	-710	6.0	411	42
180	795	-745	7.0	348	35
185	835	-785	8.0	301	29
190	867	-817	6.4	383	39
195	895	-845	5.6	443	46
200	925	-875	6.0	411	42
205	935	-885	2.0	1362	170
210	980	-930	9.0	264	25
215	1040	-990	12.0	193	17
220					



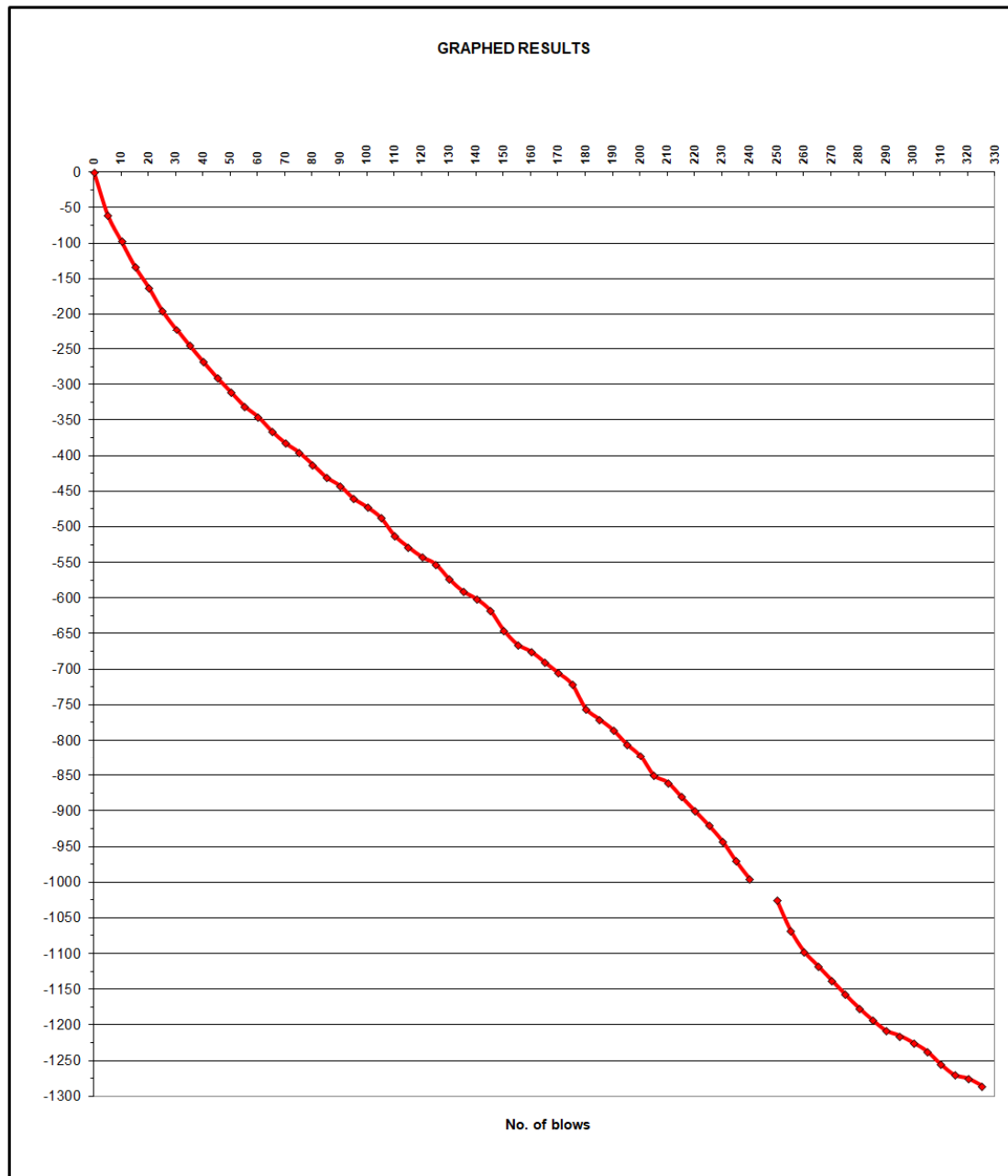
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 11				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	70	-60	12.0	193	17
10	107	-97	7.4	327	32
15	143	-133	7.2	337	33
20	172	-162	5.8	427	44
25	205	-195	6.6	371	37
30	231	-221	5.2	481	51
35	255	-245	4.8	525	56
40	278	-268	4.6	550	59
45	300	-290	4.4	577	62
50	320	-310	4.0	640	70
55	340	-330	4.0	640	70
60	355	-345	3.0	876	102
65	375	-365	4.0	640	70
70	392	-382	3.4	764	87
75	405	-395	2.6	1023	122
80	422	-412	3.4	764	87
85	440	-430	3.6	718	81
90	452	-442	2.4	1117	135
95	470	-460	3.6	718	81
100	482	-472	2.4	1117	135
105	497	-487	3.0	876	102
110	522	-512	5.0	502	53
115	538	-528	3.2	816	94
120	552	-542	2.8	944	111
125	562	-562	2.0	1362	170
130	583	-573	4.2	607	66
135	600	-590	3.4	764	87
140	611	-601	2.2	1228	151
145	627	-617	3.2	816	94
150	655	-645	5.6	443	46
155	675	-665	4.0	640	70
160	685	-675	2.0	1362	170
165	700	-690	3.0	876	102
170	715	-705	3.0	876	102
175	731	-721	3.2	816	94
180	765	-755	6.8	359	36
185	780	-770	3.0	876	102
190	795	-785	3.0	876	102
195	815	-805	4.0	640	70
200	832	-822	3.4	764	87
205	860	-850	5.6	443	46
210	870	-860	2.0	1362	170
215	890	-880	4.0	640	70
220	910	-900	4.0	640	70
225	930	-920	4.0	640	70
230	952	-942	4.4	577	62
235	980	-970	5.6	443	46
240	1005	-995	5.0	502	53
245					
250	1025	-1025	205.0	9	0
255	1067	-1067	8.4	285	27
260	1097	-1097	6.0	411	42
265	1117	-1117	4.0	640	70
270	1137	-1137	4.0	640	70
275	1157	-1157	4.0	640	70
280	1176	-1176	3.8	677	75
285	1193	-1193	3.4	764	87
290	1208	-1208	3.0	876	102
295	1215	-1215	1.4	2010	267
300	1225	-1225	2.0	1362	170
305	1237	-1237	2.4	1117	135
310	1255	-1255	3.6	718	81
315	1270	-1270	3.0	876	102
320	1275	-1275	1.0	2900	410
325	1285	-1285	2.0	1362	170
330					



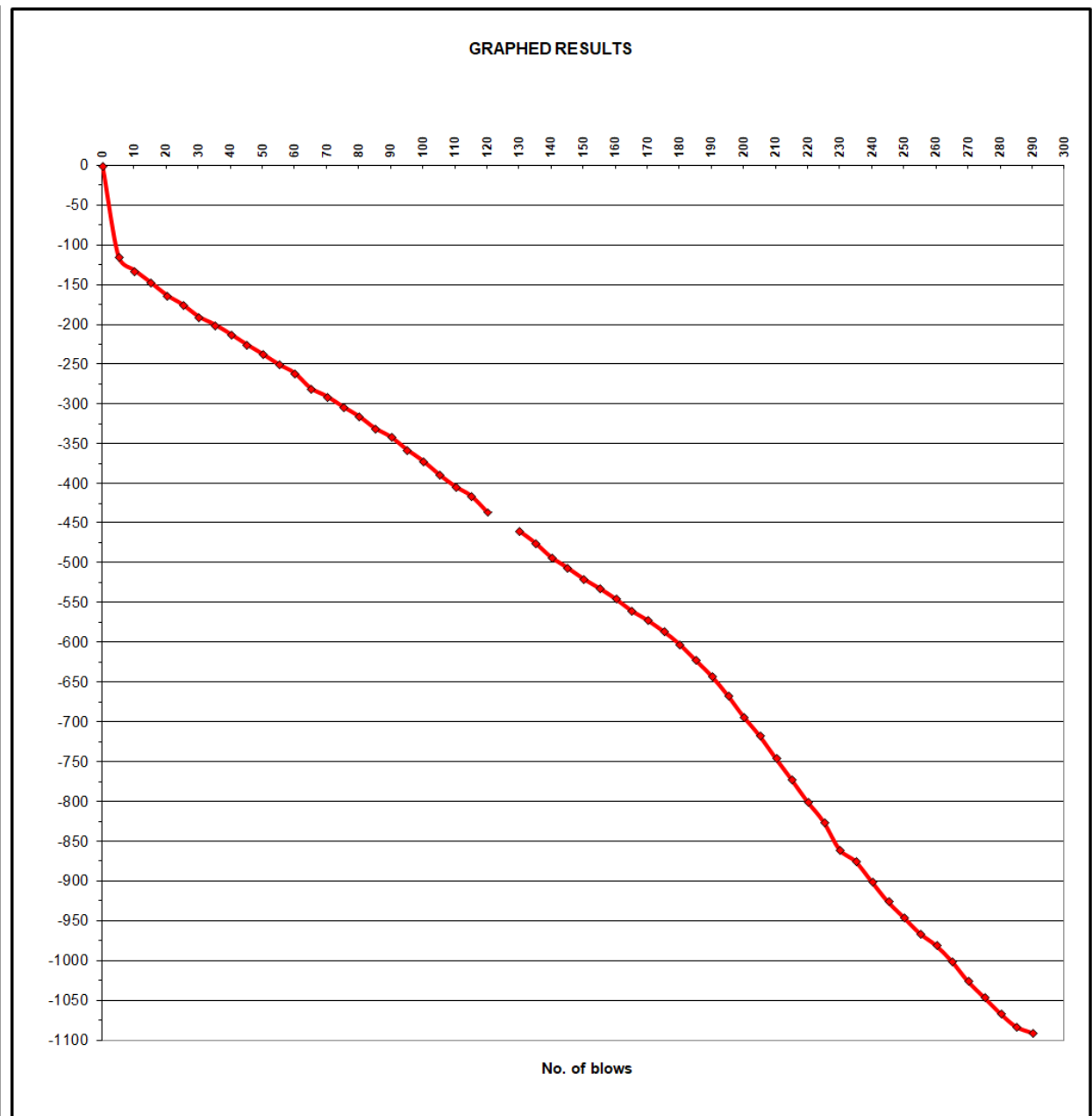
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 12				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	15	0	0.0		
5	130	-115	23.0	95	8
10	147	-132	3.4	764	87
15	162	-147	3.0	876	102
20	178	-163	3.2	816	94
25	190	-175	2.4	1117	135
30	205	-190	3.0	876	102
35	215	-200	2.0	1362	170
40	227	-212	2.4	1117	135
45	240	-225	2.6	1023	122
50	252	-237	2.4	1117	135
55	265	-250	2.6	1023	122
60	276	-261	2.2	1228	151
65	295	-280	3.8	677	75
70	305	-290	2.0	1362	170
75	318	-303	2.6	1023	122
80	330	-315	2.4	1117	135
85	345	-330	3.0	876	102
90	356	-341	2.2	1228	151
95	372	-357	3.2	816	94
100	386	-371	2.8	944	111
105	403	-388	3.4	764	87
110	418	-403	3.0	876	102
115	430	-415	2.4	1117	135
120	450	-435	4.0	640	70
125					
130	460	-460	92.0	21	1
135	475	-475	3.0	876	102
140	493	-493	3.6	718	81
145	506	-506	2.6	1023	122
150	520	-520	2.8	944	111
155	532	-532	2.4	1117	135
160	545	-545	2.6	1023	122
165	560	-560	3.0	876	102
170	572	-572	2.4	1117	135
175	586	-586	2.8	944	111
180	602	-602	3.2	816	94
185	622	-622	4.0	640	70
190	642	-642	4.0	640	70
195	666	-666	4.8	525	56
200	693	-693	5.4	461	48
205	717	-717	4.8	525	56
210	745	-745	5.6	443	46
215	772	-772	5.4	461	48
220	800	-800	5.6	443	46
225	825	-825	5.0	502	53
230	860	-860	7.0	348	35
235	875	-875	3.0	876	102
240	900	-900	5.0	502	53
245	925	-925	5.0	502	53
250	945	-945	4.0	640	70
255	965	-965	4.0	640	70
260	980	-980	3.0	876	102
265	1000	-1000	4.0	640	70
270	1025	-1025	5.0	502	53
275	1045	-1045	4.0	640	70
280	1065	-1065	4.0	640	70
285	1082	-1082	3.4	764	87
290	1090	-1090	1.6	1737	226
295					



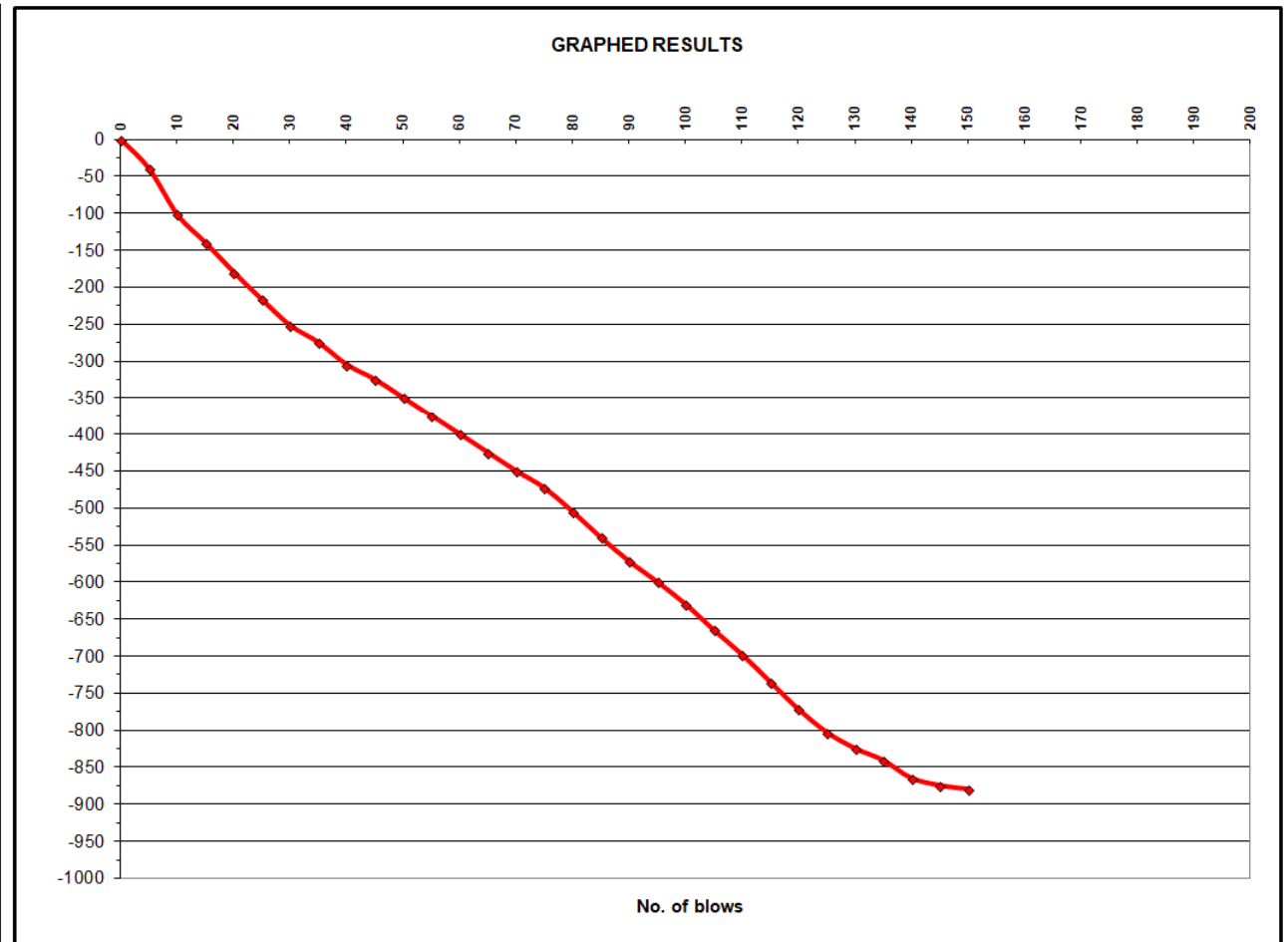
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 13				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	50	-40	8.0	301	29
10	112	-102	12.4	186	17
15	150	-140	7.6	318	31
20	190	-180	8.0	301	29
25	227	-217	7.4	327	32
30	262	-252	7.0	348	35
35	285	-275	4.6	550	59
40	315	-305	6.0	411	42
45	335	-325	4.0	640	70
50	360	-350	5.0	502	53
55	385	-375	5.0	502	53
60	410	-400	5.0	502	53
65	435	-425	5.0	502	53
70	460	-450	5.0	502	53
75	483	-473	4.6	550	59
80	515	-505	6.4	383	39
85	550	-540	7.0	348	35
90	582	-572	6.4	383	39
95	610	-600	5.6	443	46
100	640	-630	6.0	411	42
105	675	-665	7.0	348	35
110	708	-698	6.6	371	37
115	745	-735	7.4	327	32
120	782	-772	7.4	327	32
125	813	-803	6.2	397	40
130	835	-825	4.4	577	62
135	851	-841	3.2	816	94
140	875	-865	4.8	525	56
145	885	-875	2.0	1362	170
150	890	-880	1.0	2900	410
155					
160					
165					
170					
175					
180					
185					
190					
195					
200					



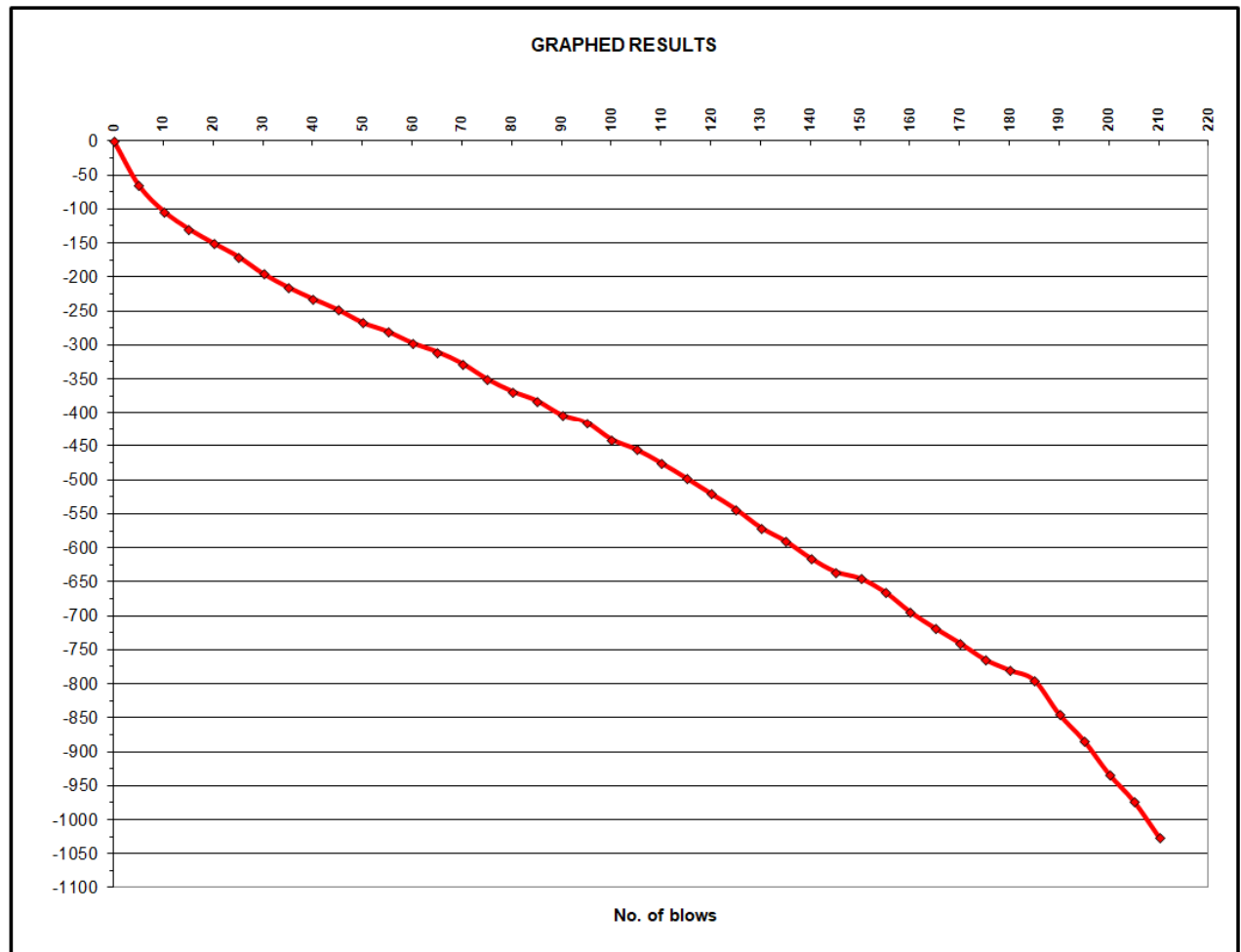
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 14				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	15	0	0.0		
5	80	-65	13.0	177	16
10	118	-103	7.6	318	31
15	144	-129	5.2	481	51
20	165	-150	4.2	607	66
25	185	-170	4.0	640	70
30	210	-195	5.0	502	53
35	230	-215	4.0	640	70
40	247	-232	3.4	764	87
45	263	-248	3.2	816	94
50	282	-267	3.8	677	75
55	295	-280	2.6	1023	122
60	312	-297	3.4	764	87
65	325	-310	2.6	1023	122
70	342	-327	3.4	764	87
75	365	-350	4.6	550	59
80	383	-368	3.6	718	81
85	397	-382	2.8	944	111
90	418	-403	4.2	607	66
95	430	-415	2.4	1117	135
100	455	-440	5.0	502	53
105	470	-455	3.0	876	102
110	490	-475	4.0	640	70
115	512	-497	4.4	577	62
120	535	-520	4.6	550	59
125	558	-543	4.6	550	59
130	585	-570	5.4	461	48
135	605	-590	4.0	640	70
140	630	-615	5.0	502	53
145	650	-635	4.0	640	70
150	660	-645	2.0	1362	170
155	680	-665	4.0	640	70
160	709	-694	5.8	427	44
165	733	-718	4.8	525	56
170	755	-740	4.4	577	62
175	779	-764	4.8	525	56
180	795	-780	3.2	816	94
185	810	-795	3.0	876	102
190	860	-845	10.0	236	22
195	899	-884	7.8	309	30
200	948	-933	9.8	241	23
205	988	-973	8.0	301	29
210	1040	-1025	10.4	226	21
215					



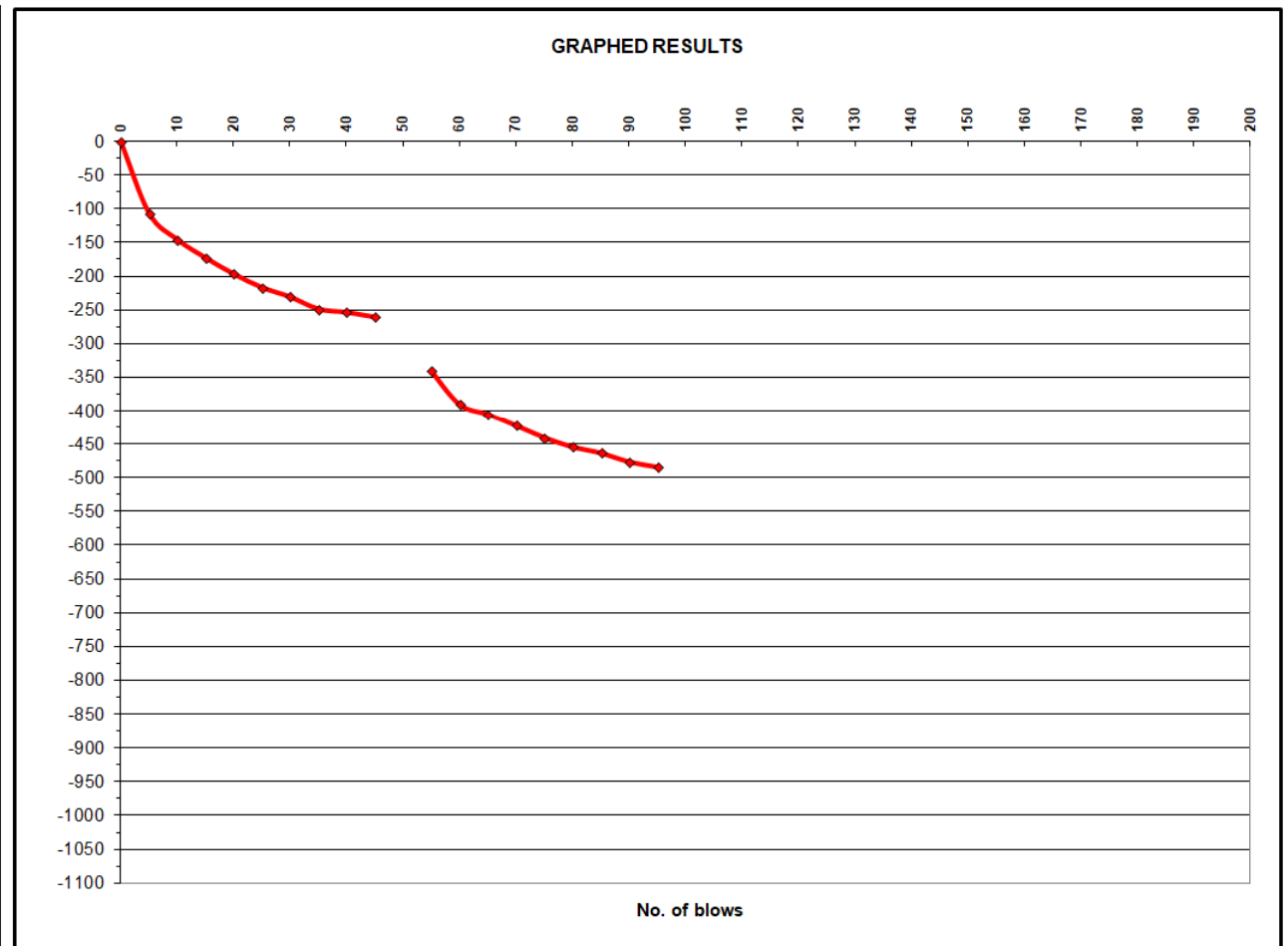
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 15				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	20	0	0.0		
5	126	-106	21.2	104	8
10	165	-145	7.8	309	30
15	192	-172	5.4	461	48
20	216	-196	4.8	525	56
25	236	-216	4.0	640	70
30	250	-230	2.8	944	111
35	268	-248	3.6	718	81
40	273	-253	1.0	2900	410
45	280	-260	1.4	2010	267
50					
55	340	-340	68.0	29	2
60	390	-390	10.0	236	22
65	405	-405	3.0	876	102
70	422	-422	3.4	764	87
75	440	-440	3.6	718	81
80	454	-454	2.8	944	111
85	463	-463	1.8	1528	194
90	476	-476	2.6	1023	122
95	484	-484	1.6	1737	226
100					
105					
110					
115					
120					
125					
130					
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165					
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180					
185					
190					
195					
200					



ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 16				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	11	0	0.0		
5	100	-89	17.8	126	11
10	141	-130	8.2	293	28
15	172	-161	6.2	397	40
20	202	-191	6.0	411	42
25	230	-219	5.6	443	46
30	260	-249	6.0	411	42
35	285	-274	5.0	502	53
40	310	-299	5.0	502	53
45	335	-324	5.0	502	53
50	360	-349	5.0	502	53
55	385	-374	5.0	502	53
60	410	-399	5.0	502	53
65	432	-421	4.4	577	62
70	455	-444	4.6	550	59
75	474	-463	3.8	677	75
80	492	-481	3.6	718	81
85	505	-494	2.6	1023	122
90	522	-511	3.4	764	87
95	534	-523	2.4	1117	135
100	546	-535	2.4	1117	135
105	557	-546	2.2	1228	151
110	572	-561	3.0	876	102
115	585	-574	2.6	1023	122
120	601	-590	3.2	816	94
125	615	-604	2.8	944	111
130	624	-613	1.8	1528	194
135	657	-646	6.6	371	37
140	680	-669	4.6	550	59
145	702	-691	4.4	577	62
150	725	-714	4.6	550	59
155	750	-739	5.0	502	53
160	772	-761	4.4	577	62
165	799	-788	5.4	461	48
170	825	-814	5.2	481	51
175	855	-844	6.0	411	42
180	882	-871	5.4	461	48
185	905	-894	4.6	550	59
190	932	-921	5.4	461	48
195	960	-949	5.6	443	46
200	982	-971	4.4	577	62
205	1005	-994	4.6	550	59
210					



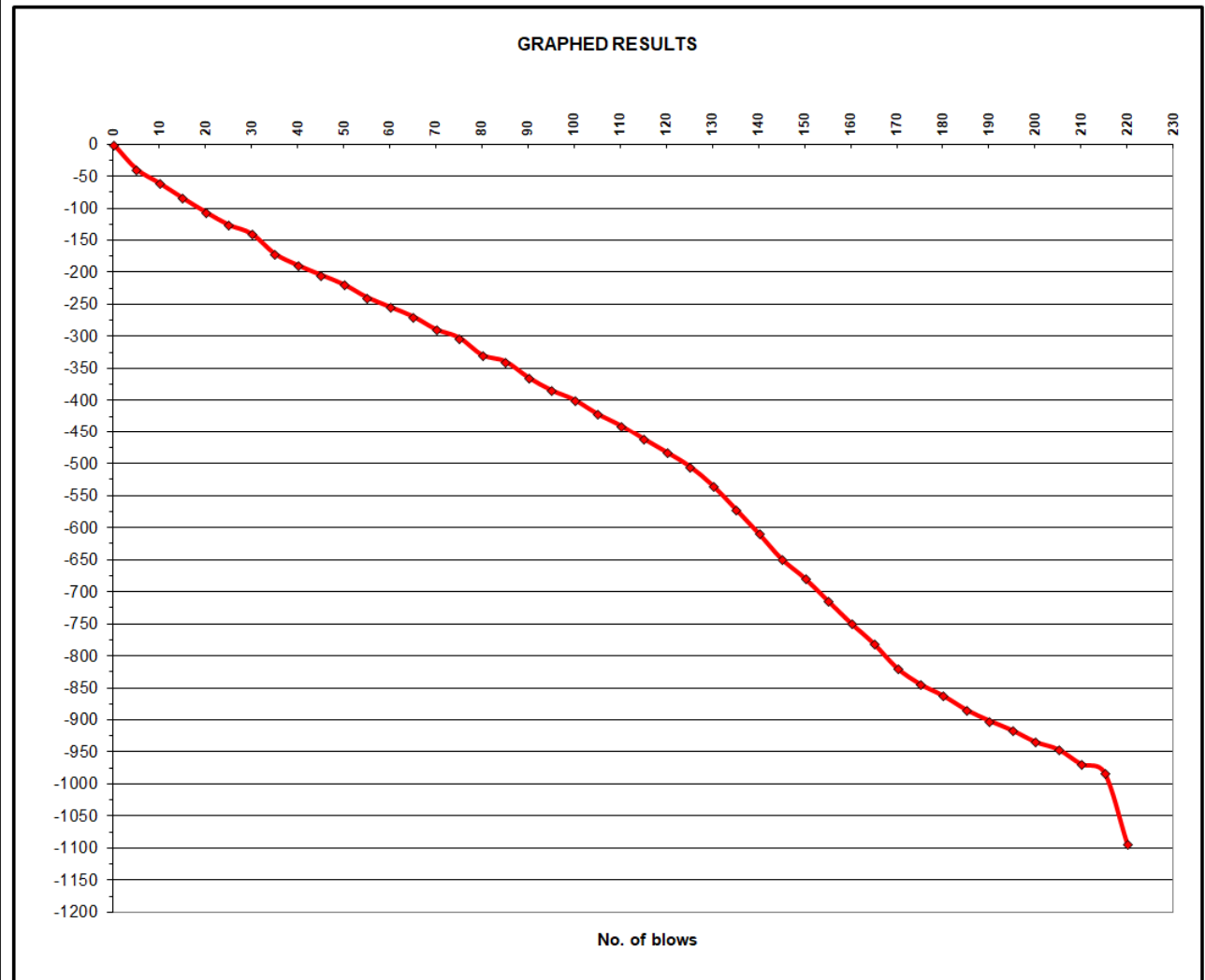
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 17				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	11	0	0.0		
5	50	-39	7.8	309	30
10	72	-61	4.4	577	62
15	95	-84	4.6	550	59
20	117	-106	4.4	577	62
25	137	-126	4.0	640	70
30	151	-140	2.8	944	111
35	182	-171	6.2	397	40
40	200	-189	3.6	718	81
45	215	-204	3.0	876	102
50	230	-219	3.0	876	102
55	250	-239	4.0	640	70
60	265	-254	3.0	876	102
65	280	-269	3.0	876	102
70	300	-289	4.0	640	70
75	313	-302	2.6	1023	122
80	340	-329	5.4	461	48
85	350	-339	2.0	1362	170
90	375	-364	5.0	502	53
95	395	-384	4.0	640	70
100	410	-399	3.0	876	102
105	432	-421	4.4	577	62
110	450	-439	3.6	718	81
115	472	-461	4.4	577	62
120	493	-482	4.2	607	66
125	515	-504	4.4	577	62
130	545	-534	6.0	411	42
135	582	-571	7.4	327	32
140	620	-609	7.6	318	31
145	660	-649	8.0	301	29
150	690	-679	6.0	411	42
155	725	-714	7.0	348	35
160	760	-749	7.0	348	35
165	792	-781	6.4	383	39
170	830	-819	7.6	318	31
175	855	-844	5.0	502	53
180	873	-862	3.6	718	81
185	895	-884	4.4	577	62
190	912	-901	3.4	764	87
195	927	-916	3.0	876	102
200	945	-934	3.6	718	81
205	957	-946	2.4	1117	135
210	980	-969	4.6	550	59
215	993	-982	2.6	1023	122
220	1105	-1094	22.4	98	8
225					



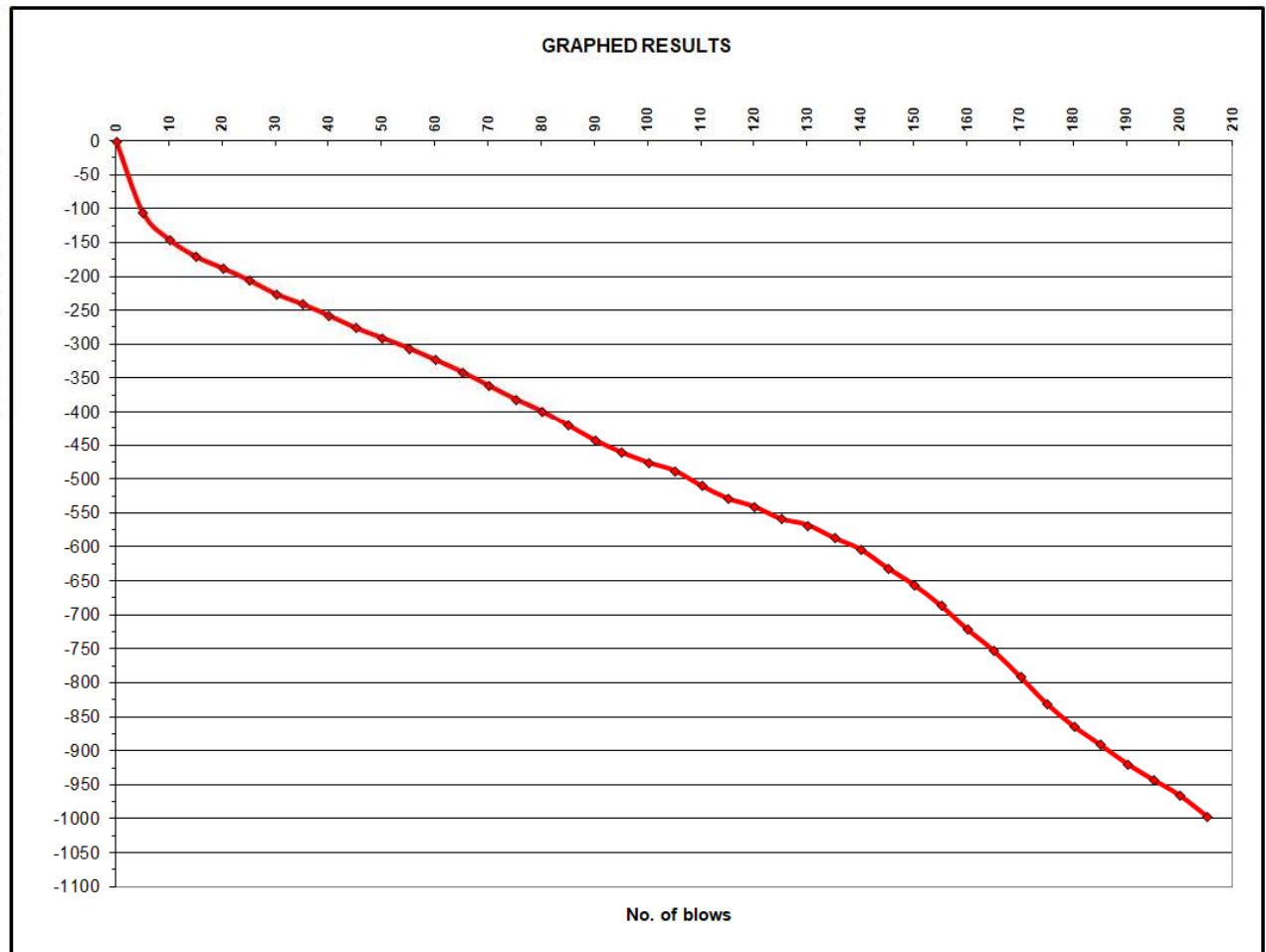
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 18				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	115	-105	21.0	105	9
10	155	-145	8.0	301	29
15	180	-170	5.0	502	53
20	197	-187	3.4	764	87
25	215	-205	3.6	718	81
30	235	-225	4.0	640	70
35	250	-240	3.0	876	102
40	267	-257	3.4	764	87
45	285	-275	3.6	718	81
50	300	-290	3.0	876	102
55	315	-305	3.0	876	102
60	332	-322	3.4	764	87
65	350	-340	3.6	718	81
70	370	-360	4.0	640	70
75	390	-380	4.0	640	70
80	408	-398	3.6	718	81
85	430	-420	4.4	577	62
90	452	-442	4.4	577	62
95	470	-460	3.6	718	81
100	485	-475	3.0	876	102
105	497	-487	2.4	1117	135
110	519	-509	4.4	577	62
115	538	-528	3.8	677	75
120	550	-540	2.4	1117	135
125	568	-558	3.6	718	81
130	577	-567	1.8	1528	194
135	596	-586	3.8	677	75
140	613	-603	3.4	764	87
145	640	-630	5.4	461	48
150	665	-655	5.0	502	53
155	695	-685	6.0	411	42
160	730	-720	7.0	348	35
165	762	-752	6.4	383	39
170	800	-790	7.6	318	31
175	840	-830	8.0	301	29
180	873	-863	6.6	371	37
185	900	-890	5.4	461	48
190	928	-918	5.6	443	46
195	952	-942	4.8	525	56
200	975	-965	4.6	550	59
205	1005	-995	6.0	411	42
210					



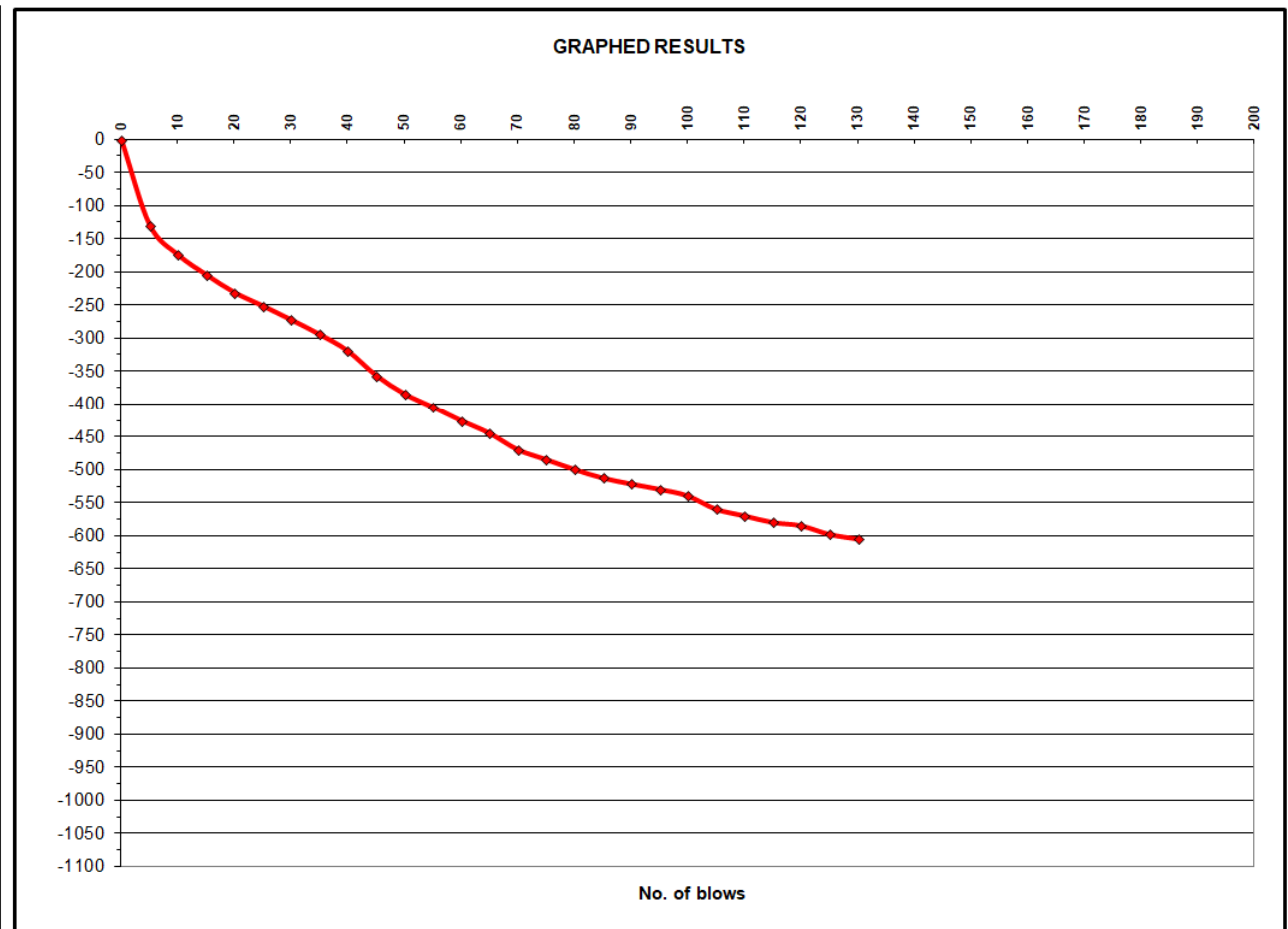
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 19				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	11	0	0.0		
5	140	-129	25.8	84	7
10	185	-174	9.0	264	25
15	215	-204	6.0	411	42
20	242	-231	5.4	461	48
25	262	-251	4.0	640	70
30	283	-272	4.2	607	66
35	305	-294	4.4	577	62
40	330	-319	5.0	502	53
45	367	-356	7.4	327	32
50	395	-384	5.6	443	46
55	415	-404	4.0	640	70
60	436	-425	4.2	607	66
65	455	-444	3.8	677	75
70	480	-469	5.0	502	53
75	495	-484	3.0	876	102
80	510	-499	3.0	876	102
85	523	-512	2.6	1023	122
90	532	-521	1.8	1528	194
95	540	-529	1.6	1737	226
100	550	-539	2.0	1362	170
105	570	-559	4.0	640	70
110	580	-569	2.0	1362	170
115	590	-579	2.0	1362	170
120	595	-584	1.0	2900	410
125	608	-597	2.6	1023	122
130	615	-604	1.4	2010	267
135					
140					
145					
150					
155					
160					
165					
170					
175					
180					
185					
190					
200					



ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 20				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	11	0	0.0		
5	80	-69	13.8	166	15
10	110	-99	6.0	411	42
15	132	-121	4.4	577	62
20	155	-144	4.6	550	59
25	175	-164	4.0	640	70
30	192	-181	3.4	764	87
35	207	-196	3.0	876	102
40	222	-211	3.0	876	102
45	238	-227	3.2	816	94
50	252	-241	2.8	944	111
55	270	-259	3.6	718	81
60	284	-273	2.8	944	111
65	298	-287	2.8	944	111
70	310	-299	2.4	1117	135
75	322	-311	2.4	1117	135
80	334	-323	2.4	1117	135
85	345	-334	2.2	1228	151
90	360	-349	3.0	876	102
95	378	-367	3.6	718	81
100	390	-379	2.4	1117	135
105	400	-389	2.0	1362	170
110	415	-404	3.0	876	102
115	427	-416	2.4	1117	135
120	440	-429	2.6	1023	122
125	452	-441	2.4	1117	135
130	465	-454	2.6	1023	122
135	475	-464	2.0	1362	170
140	490	-479	3.0	876	102
145	502	-491	2.4	1117	135
150	512	-501	2.0	1362	170
155	522	-511	2.0	1362	170
160	535	-524	2.6	1023	122
165	543	-532	1.6	1737	226
170	557	-546	2.8	944	111
175	571	-560	2.8	944	111
180	580	-569	1.8	1528	194
185	597	-586	3.4	764	87
190	605	-594	1.6	1737	226
195					
200					



ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 21				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	72	-62	12.4	186	17
10	100	-90	5.6	443	46
15	122	-112	4.4	577	62
20	146	-136	4.8	525	56
25	170	-160	4.8	525	56
30	190	-180	4.0	640	70
35	210	-200	4.0	640	70
40	230	-220	4.0	640	70
45	250	-240	4.0	640	70
50	270	-260	4.0	640	70
55	285	-275	3.0	876	102
60	305	-295	4.0	640	70
65	320	-310	3.0	876	102
70	332	-322	2.4	1117	135
75	358	-348	5.2	481	51
80	382	-372	4.8	525	56
85	402	-392	4.0	640	70
90	422	-412	4.0	640	70
95	448	-438	5.2	481	51
100	452	-442	0.8	3699	544
105	475	-465	4.6	550	59
110	492	-482	3.4	764	87
115	510	-500	3.6	718	81
120	530	-520	4.0	640	70
125	562	-552	6.4	383	39
130	582	-572	4.0	640	70
135	600	-590	3.6	718	81
140	612	-602	2.4	1117	135
145	625	-615	2.6	1023	122
150	640	-630	3.0	876	102
155	656	-646	3.2	816	94
160	670	-660	2.8	944	111
165	680	-670	2.0	1362	170
170	697	-687	3.4	764	87
175	710	-700	2.6	1023	122
180	725	-715	3.0	876	102
185	738	-728	2.6	1023	122
190	750	-740	2.4	1117	135
195	765	-755	3.0	876	102
200	780	-770	3.0	876	102
205	795	-785	3.0	876	102
210	812	-802	3.4	764	87
215	828	-818	3.2	816	94
220	842	-832	2.8	944	111
225	865	-855	4.6	550	59
230	880	-870	3.0	876	102
235	902	-892	4.4	577	62
240	920	-910	3.6	718	81
245	932	-922	2.4	1117	135
250	943	-933	2.2	1228	151
255	960	-950	3.4	764	87
260	980	-970	4.0	640	70
265	1100	-1090	24.0	91	7
270					



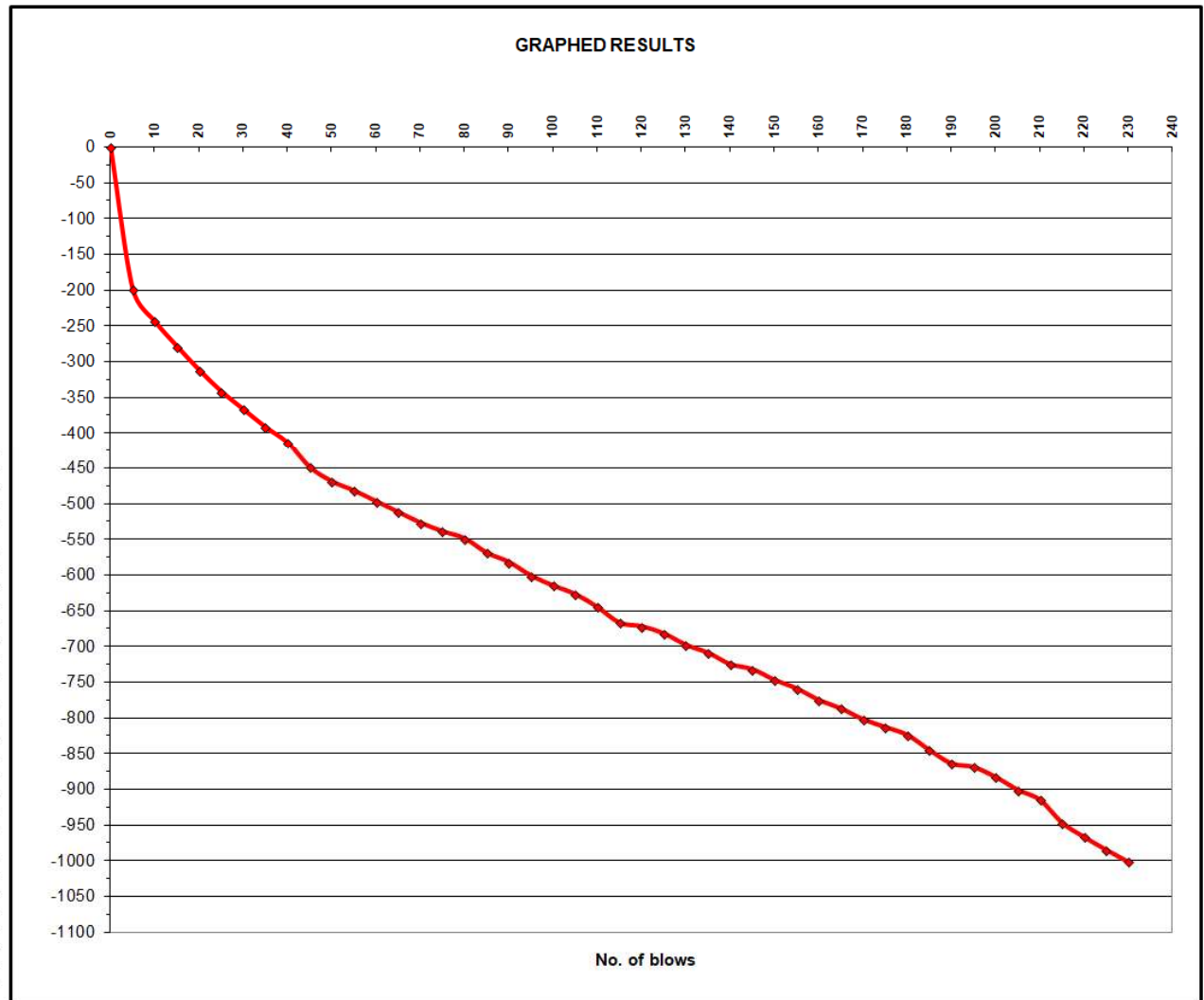
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 22				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	3	0	0.0		
5	202	-199	39.8	52	4
10	247	-244	9.0	264	25
15	282	-279	7.0	348	35
20	315	-312	6.6	371	37
25	345	-342	6.0	411	42
30	370	-367	5.0	502	53
35	395	-392	5.0	502	53
40	417	-414	4.4	577	62
45	452	-449	7.0	348	35
50	472	-469	4.0	640	70
55	485	-482	2.6	1023	122
60	500	-497	3.0	876	102
65	515	-512	3.0	876	102
70	530	-527	3.0	876	102
75	542	-539	2.4	1117	135
80	552	-549	2.0	1362	170
85	572	-569	4.0	640	70
90	585	-582	2.6	1023	122
95	604	-601	3.8	677	75
100	618	-615	2.8	944	111
105	630	-627	2.4	1117	135
110	648	-645	3.6	718	81
115	670	-667	4.4	577	62
120	675	-672	1.0	2900	410
125	685	-682	2.0	1362	170
130	701	-698	3.2	816	94
135	712	-709	2.2	1228	151
140	728	-725	3.2	816	94
145	735	-732	1.4	2010	267
150	750	-747	3.0	876	102
155	762	-759	2.4	1117	135
160	778	-775	3.2	816	94
165	790	-787	2.4	1117	135
170	805	-802	3.0	876	102
175	816	-813	2.2	1228	151
180	827	-824	2.2	1228	151
185	848	-845	4.2	607	66
190	867	-864	3.8	677	75
195	872	-869	1.0	2900	410
200	886	-883	2.8	944	111
205	904	-901	3.6	718	81
210	918	-915	2.8	944	111
215	950	-947	6.4	383	39
220	970	-967	4.0	640	70
225	988	-985	3.6	718	81
230	1005	-1002	3.4	764	87
235					



ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 23				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	1	0	0.0		
5	100	-99	19.8	112	9
10	149	-148	9.8	241	23
15	164	-163	3.0	876	102
20	180	-179	3.2	816	94
25	198	-197	3.6	718	81
30	216	-215	3.6	718	81
35	235	-234	3.8	677	75
40	254	-253	3.8	677	75
45	280	-279	5.2	481	51
50	307	-306	5.4	461	48
55	336	-335	5.8	427	44
60	370	-369	6.8	359	36
65	408	-407	7.6	318	31
70	445	-444	7.4	327	32
75	488	-487	8.6	278	27
80	530	-529	8.4	285	27
85	572	-571	8.4	285	27
90	602	-601	6.0	411	42
95	627	-626	5.0	502	53
100	650	-649	4.6	550	59
105	670	-669	4.0	640	70
110	696	-695	5.2	481	51
115	705	-704	1.8	1528	194
120	722	-721	3.4	764	87
125	731	-730	1.8	1528	194
130					
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195					
200					



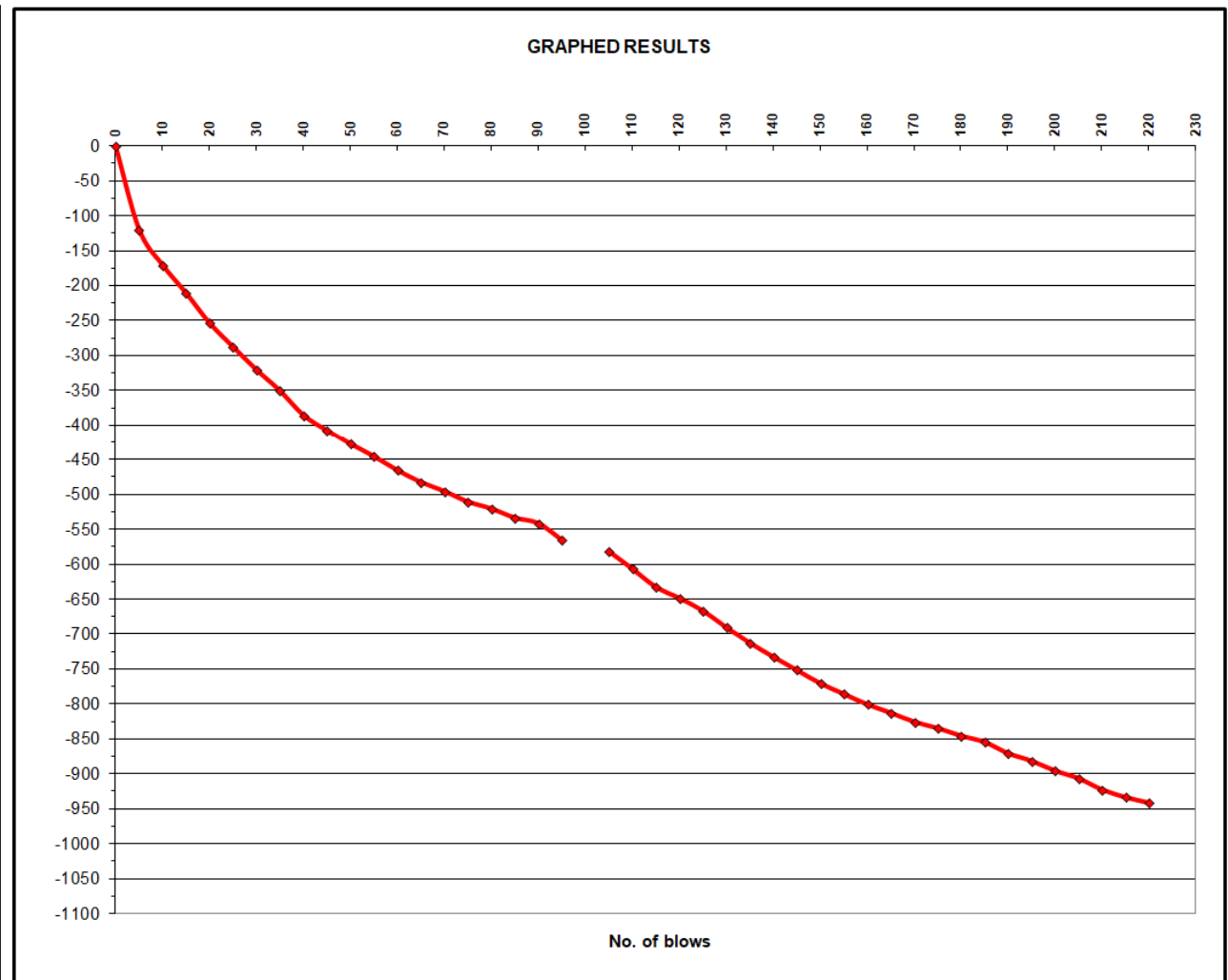
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 24				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	15	0	0.0		
5	134	-119	23.8	92	7
10	185	-170	10.2	231	21
15	225	-210	8.0	301	29
20	268	-253	8.6	278	27
25	302	-287	6.8	359	36
30	335	-320	6.6	371	37
35	365	-350	6.0	411	42
40	400	-385	7.0	348	35
45	422	-407	4.4	577	62
50	442	-427	4.0	640	70
55	460	-445	3.6	718	81
60	480	-465	4.0	640	70
65	497	-482	3.4	764	87
70	510	-495	2.6	1023	122
75	525	-510	3.0	876	102
80	535	-520	2.0	1362	170
85	548	-533	2.6	1023	122
90	556	-541	1.6	1737	226
95	580	-565	4.8	525	56
100					
105	581	-581	116.2	16	1
110	606	-606	5.0	502	53
115	632	-632	5.2	481	51
120	648	-648	3.2	816	94
125	666	-666	3.6	718	81
130	690	-690	4.8	525	56
135	712	-712	4.4	577	62
140	732	-732	4.0	640	70
145	751	-751	3.8	677	75
150	770	-770	3.8	677	75
155	785	-785	3.0	876	102
160	800	-800	3.0	876	102
165	812	-812	2.4	1117	135
170	825	-825	2.6	1023	122
175	834	-834	1.8	1528	194
180	845	-845	2.2	1228	151
185	854	-854	1.8	1528	194
190	870	-870	3.2	816	94
195	881	-881	2.2	1228	151
200	895	-895	2.8	944	111
205	906	-906	2.2	1228	151
210	922	-922	3.2	816	94
215	933	-933	2.2	1228	151
220	941	-941	1.6	1737	226
225					



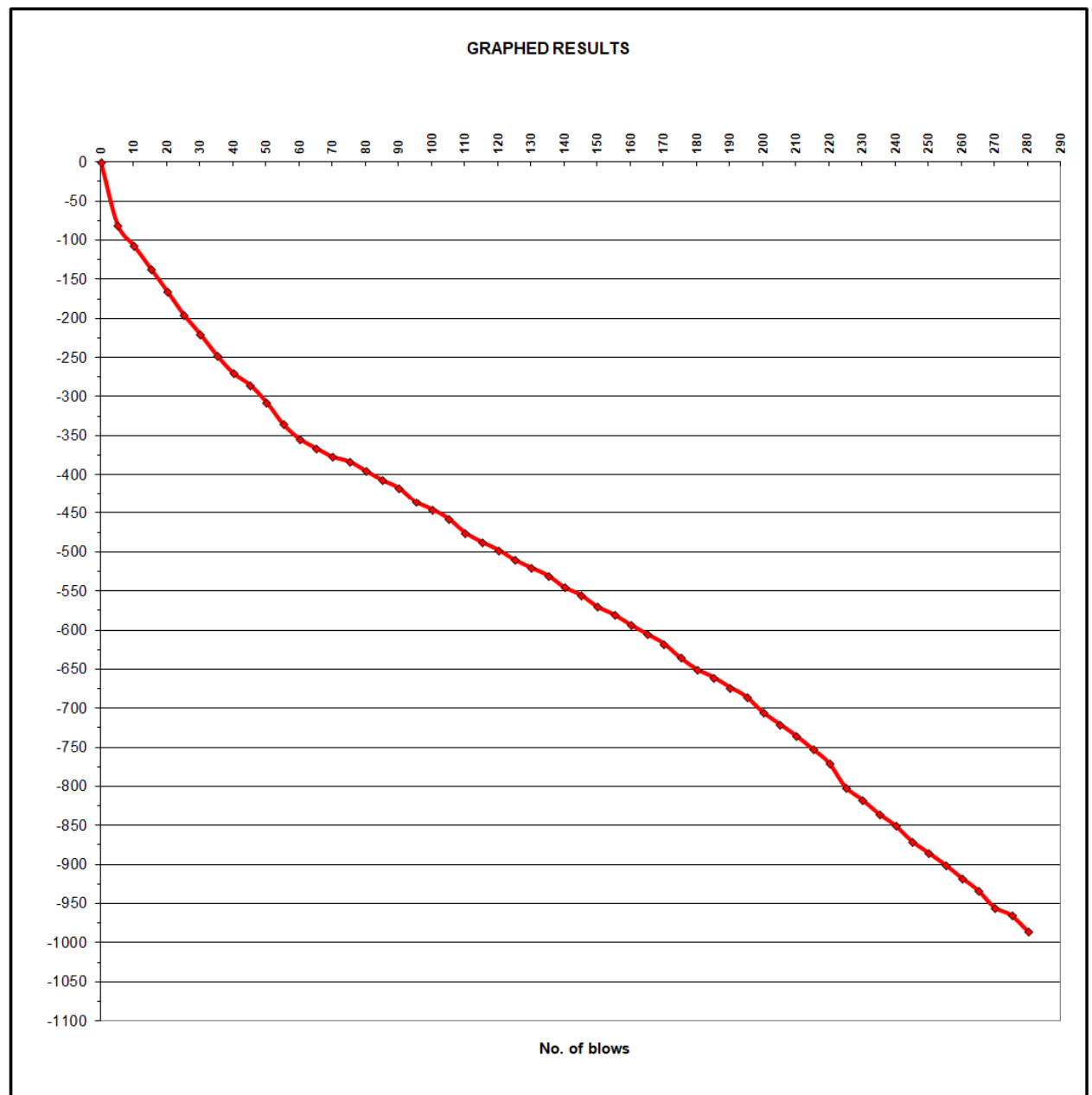
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 25				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	35	0	0.0		
5	115	-80	16.0	141	12
10	142	-107	5.4	461	48
15	171	-136	5.8	427	44
20	200	-165	5.8	427	44
25	230	-195	6.0	411	42
30	255	-220	5.0	502	53
35	282	-247	5.4	461	48
40	305	-270	4.6	550	59
45	320	-285	3.0	876	102
50	342	-307	4.4	577	62
55	370	-335	5.6	443	46
60	389	-354	3.8	677	75
65	401	-366	2.4	1117	135
70	412	-377	2.2	1228	151
75	418	-383	1.2	2377	325
80	430	-395	2.4	1117	135
85	442	-407	2.4	1117	135
90	452	-417	2.0	1362	170
95	470	-435	3.6	718	81
100	480	-445	2.0	1362	170
105	492	-457	2.4	1117	135
110	510	-475	3.6	718	81
115	522	-487	2.4	1117	135
120	532	-497	2.0	1362	170
125	545	-510	2.6	1023	122
130	555	-520	2.0	1362	170
135	565	-530	2.0	1362	170
140	580	-545	3.0	876	102
145	590	-555	2.0	1362	170
150	605	-570	3.0	876	102
155	615	-580	2.0	1362	170
160	628	-593	2.6	1023	122
165	640	-605	2.4	1117	135
170	652	-617	2.4	1117	135
175	670	-635	3.6	718	81
180	685	-650	3.0	876	102
185	695	-660	2.0	1362	170
190	708	-673	2.6	1023	122
195	720	-685	2.4	1117	135
200	740	-705	4.0	640	70
205	755	-720	3.0	876	102
210	770	-735	3.0	876	102
215	787	-752	3.4	764	87
220	805	-770	3.6	718	81
225	836	-801	6.2	397	40
230	852	-817	3.2	816	94
235	870	-835	3.6	718	81
240	885	-850	3.0	876	102
245	905	-870	4.0	640	70
250	920	-885	3.0	876	102
255	935	-900	3.0	876	102
260	952	-917	3.4	764	87
265	968	-933	3.2	816	94
270	990	-955	4.4	577	62
275	1000	-965	2.0	1362	170
280	1020	-985	4.0	640	70
285					



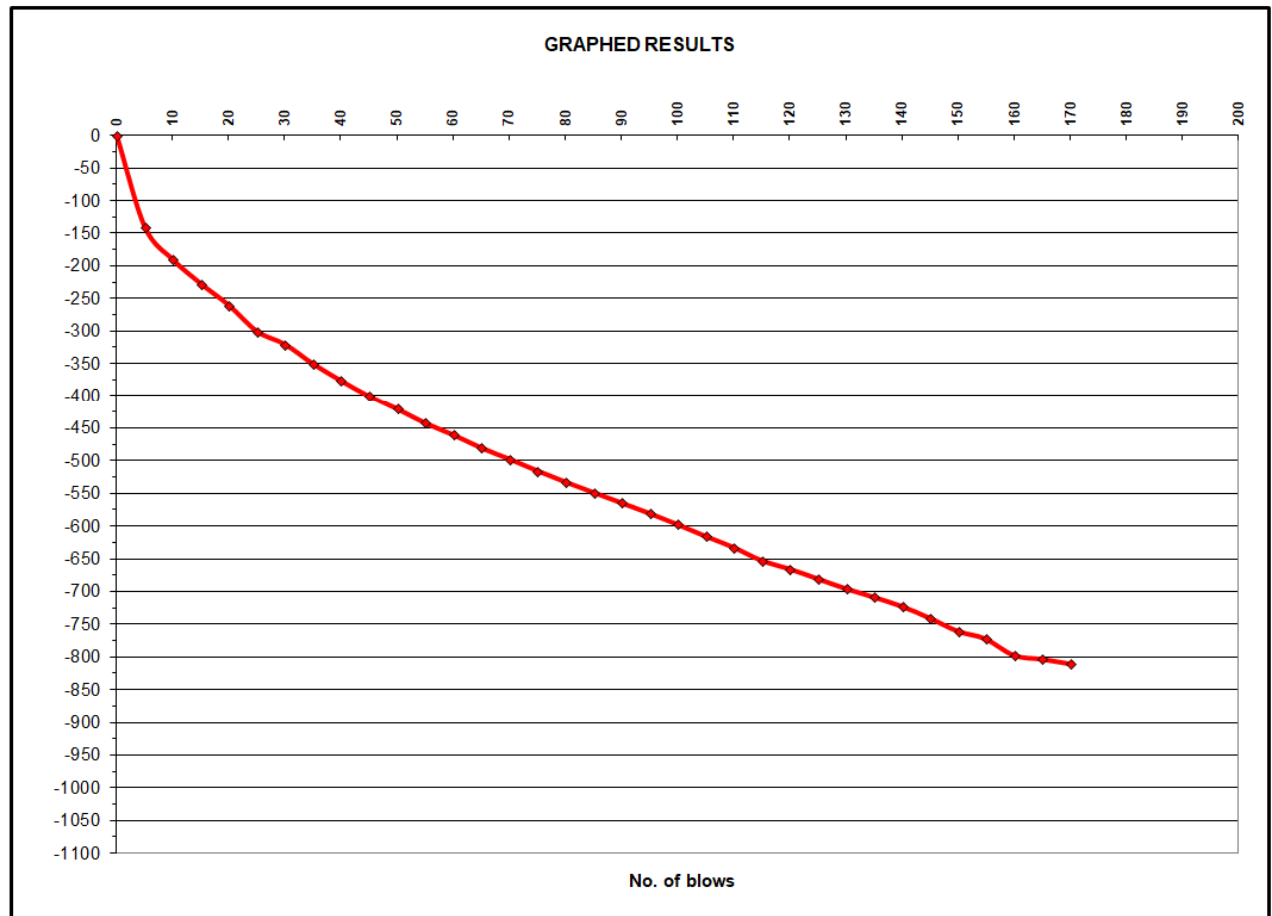
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 26				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	150	-140	28.0	77	6
10	200	-190	10.0	236	22
15	237	-227	7.4	327	32
20	270	-260	6.6	371	37
25	310	-300	8.0	301	29
30	330	-320	4.0	640	70
35	360	-350	6.0	411	42
40	386	-376	5.2	481	51
45	410	-400	4.8	525	56
50	430	-420	4.0	640	70
55	452	-442	4.4	577	62
60	470	-460	3.6	718	81
65	490	-480	4.0	640	70
70	507	-497	3.4	764	87
75	525	-515	3.6	718	81
80	542	-532	3.4	764	87
85	558	-548	3.2	816	94
90	574	-564	3.2	816	94
95	590	-580	3.2	816	94
100	607	-597	3.4	764	87
105	625	-615	3.6	718	81
110	642	-632	3.4	764	87
115	662	-652	4.0	640	70
120	675	-665	2.6	1023	122
125	690	-680	3.0	876	102
130	705	-695	3.0	876	102
135	718	-708	2.6	1023	122
140	732	-722	2.8	944	111
145	750	-740	3.6	718	81
150	770	-760	4.0	640	70
155	782	-772	2.4	1117	135
160	807	-797	5.0	502	53
165	813	-803	1.2	2377	325
170	820	-810	1.4	2010	267
175					
180					
185					
190					
195					
200					



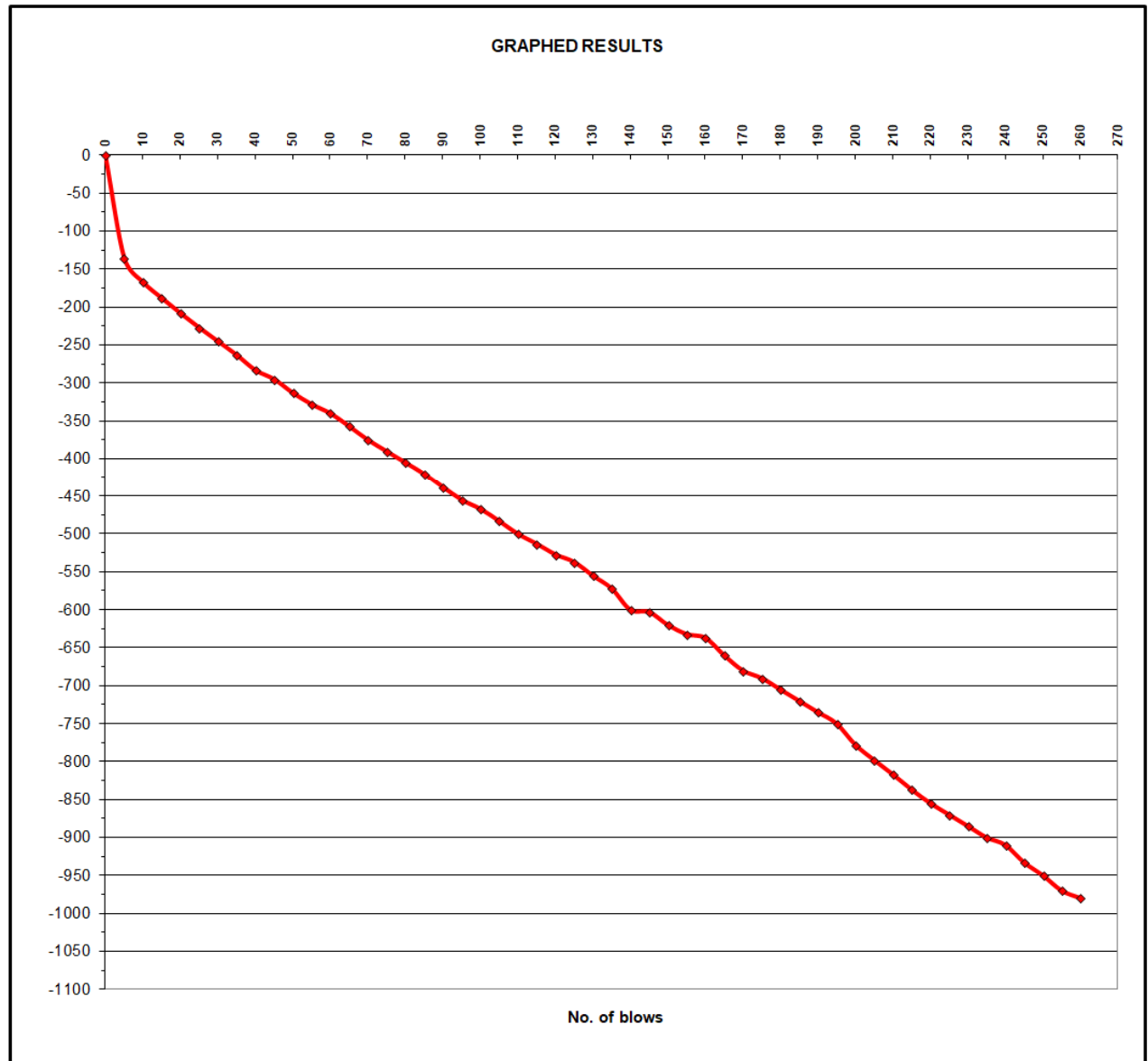
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 27				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	15	0	0.0		
5	150	-135	27.0	80	6
10	182	-167	6.4	383	39
15	203	-188	4.2	607	66
20	223	-208	4.0	640	70
25	242	-227	3.8	677	75
30	260	-245	3.6	718	81
35	278	-263	3.6	718	81
40	298	-283	4.0	640	70
45	310	-295	2.4	1117	135
50	328	-313	3.6	718	81
55	343	-328	3.0	876	102
60	355	-340	2.4	1117	135
65	372	-357	3.4	764	87
70	390	-375	3.6	718	81
75	405	-390	3.0	876	102
80	420	-405	3.0	876	102
85	435	-420	3.0	876	102
90	453	-438	3.6	718	81
95	470	-455	3.4	764	87
100	482	-467	2.4	1117	135
105	498	-483	3.2	816	94
110	515	-500	3.4	764	87
115	528	-513	2.6	1023	122
120	542	-527	2.8	944	111
125	552	-537	2.0	1362	170
130	570	-555	3.6	718	81
135	587	-572	3.4	764	87
140	615	-600	5.6	443	46
145	618	-603	0.6	5061	784
150	635	-620	3.4	764	87
155	647	-632	2.4	1117	135
160	652	-637	1.0	2900	410
165	675	-660	4.6	550	59
170	695	-680	4.0	640	70
175	705	-690	2.0	1362	170
180	720	-705	3.0	876	102
185	735	-720	3.0	876	102
190	750	-735	3.0	876	102
195	765	-750	3.0	876	102
200	793	-778	5.6	443	46
205	813	-798	4.0	640	70
210	832	-817	3.8	677	75
215	852	-837	4.0	640	70
220	870	-855	3.6	718	81
225	885	-870	3.0	876	102
230	900	-885	3.0	876	102
235	915	-900	3.0	876	102
240	925	-910	2.0	1362	170
245	948	-933	4.6	550	59
250	965	-950	3.4	764	87
255	985	-970	4.0	640	70
260	995	-980	2.0	1362	170
265					



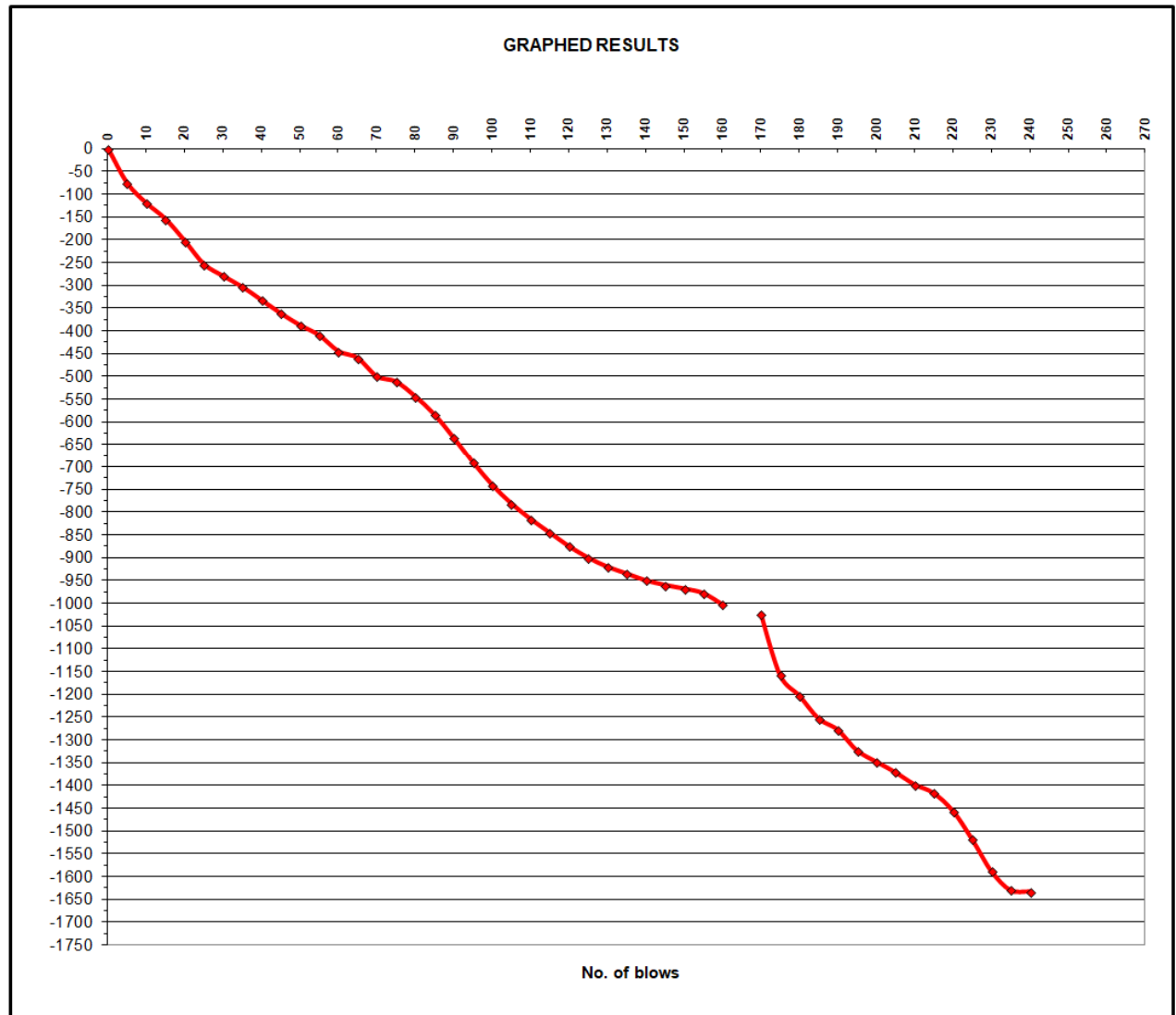
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 28				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	20	0	0.0		
5	96	-76	15.2	149	13
10	140	-120	8.8	271	26
15	175	-155	7.0	348	35
20	223	-203	9.6	246	23
25	274	-254	10.2	231	21
30	300	-280	5.2	481	51
35	324	-304	4.8	525	56
40	353	-333	5.8	427	44
45	382	-362	5.8	427	44
50	408	-388	5.2	481	51
55	430	-410	4.4	577	62
60	465	-445	7.0	348	35
65	480	-460	3.0	876	102
70	520	-500	8.0	301	29
75	532	-512	2.4	1117	135
80	564	-544	6.4	383	39
85	604	-584	8.0	301	29
90	655	-635	10.2	231	21
95	710	-690	11.0	212	20
100	760	-740	10.0	236	22
105	801	-781	8.2	293	28
110	835	-815	6.8	359	36
115	865	-845	6.0	411	42
120	895	-875	6.0	411	42
125	920	-900	5.0	502	53
130	940	-920	4.0	640	70
135	955	-935	3.0	876	102
140	970	-950	3.0	876	102
145	980	-960	2.0	1362	170
150	988	-968	1.6	1737	226
155	998	-978	2.0	1362	170
160	1023	-1003	5.0	502	53
165					
170	1023	-1023	204.6	9	0
175	1158	-1158	27.0	80	6
180	1203	-1203	9.0	264	25
185	1253	-1253	10.0	236	22
190	1278	-1278	5.0	502	53
195	1323	-1323	9.0	264	25
200	1348	-1348	5.0	502	53
205	1371	-1371	4.6	550	59
210	1398	-1398	5.4	461	48
215	1417	-1417	3.8	677	75
220	1456	-1456	7.8	309	30
225	1518	-1518	12.4	186	17
230	1588	-1588	14.0	163	14
235	1630	-1630	8.4	285	27
240	1633	-1633	0.6	5061	784
245					



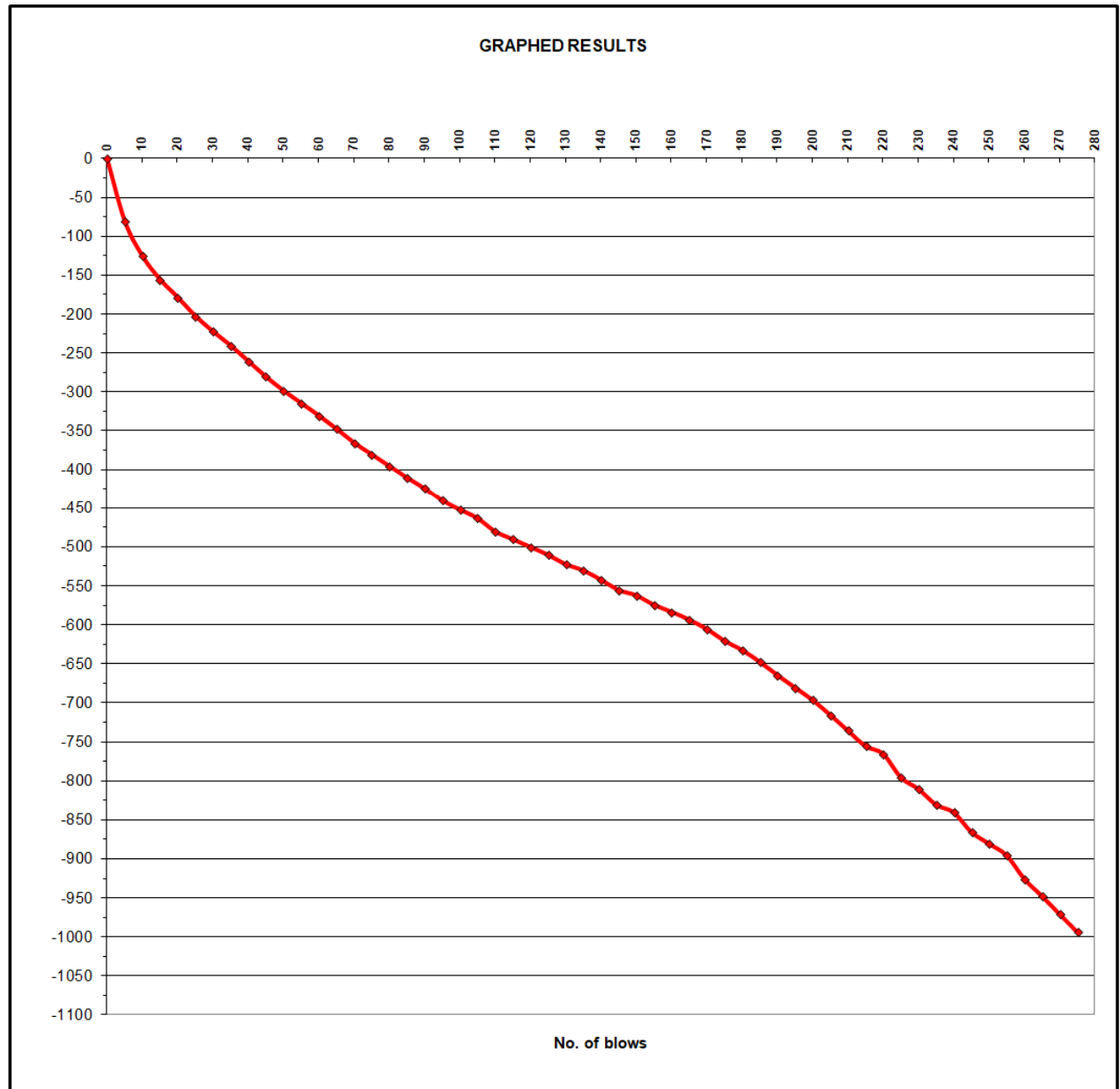
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 29				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	20	0	0.0		
5	100	-80	16.0	141	12
10	145	-125	9.0	264	25
15	175	-155	6.0	411	42
20	198	-178	4.6	550	59
25	222	-202	4.8	525	56
30	242	-222	4.0	640	70
35	260	-240	3.6	718	81
40	280	-260	4.0	640	70
45	300	-280	4.0	640	70
50	318	-298	3.6	718	81
55	334	-314	3.2	816	94
60	350	-330	3.2	816	94
65	367	-347	3.4	764	87
70	385	-365	3.6	718	81
75	400	-380	3.0	876	102
80	415	-395	3.0	876	102
85	430	-410	3.0	876	102
90	444	-424	2.8	944	111
95	460	-440	3.2	816	94
100	472	-452	2.4	1117	135
105	483	-463	2.2	1228	151
110	500	-480	3.4	764	87
115	510	-490	2.0	1362	170
120	520	-500	2.0	1362	170
125	530	-510	2.0	1362	170
130	542	-522	2.4	1117	135
135	550	-530	1.6	1737	226
140	562	-542	2.4	1117	135
145	575	-555	2.6	1023	122
150	582	-562	1.4	2010	267
155	594	-574	2.4	1117	135
160	603	-583	1.8	1528	194
165	613	-593	2.0	1362	170
170	625	-605	2.4	1117	135
175	640	-620	3.0	876	102
180	652	-632	2.4	1117	135
185	667	-647	3.0	876	102
190	684	-664	3.4	764	87
195	700	-680	3.2	816	94
200	716	-696	3.2	816	94
205	735	-715	3.8	677	75
210	755	-735	4.0	640	70
215	775	-755	4.0	640	70
220	785	-765	2.0	1362	170
225	815	-795	6.0	411	42
230	830	-810	3.0	876	102
235	850	-830	4.0	640	70
240	860	-840	2.0	1362	170
245	885	-865	5.0	502	53
250	900	-880	3.0	876	102
255	915	-895	3.0	876	102
260	945	-925	6.0	411	42
265	967	-947	4.4	577	62
270	990	-970	4.6	550	59
275	1013	-993	4.6	550	59
280					



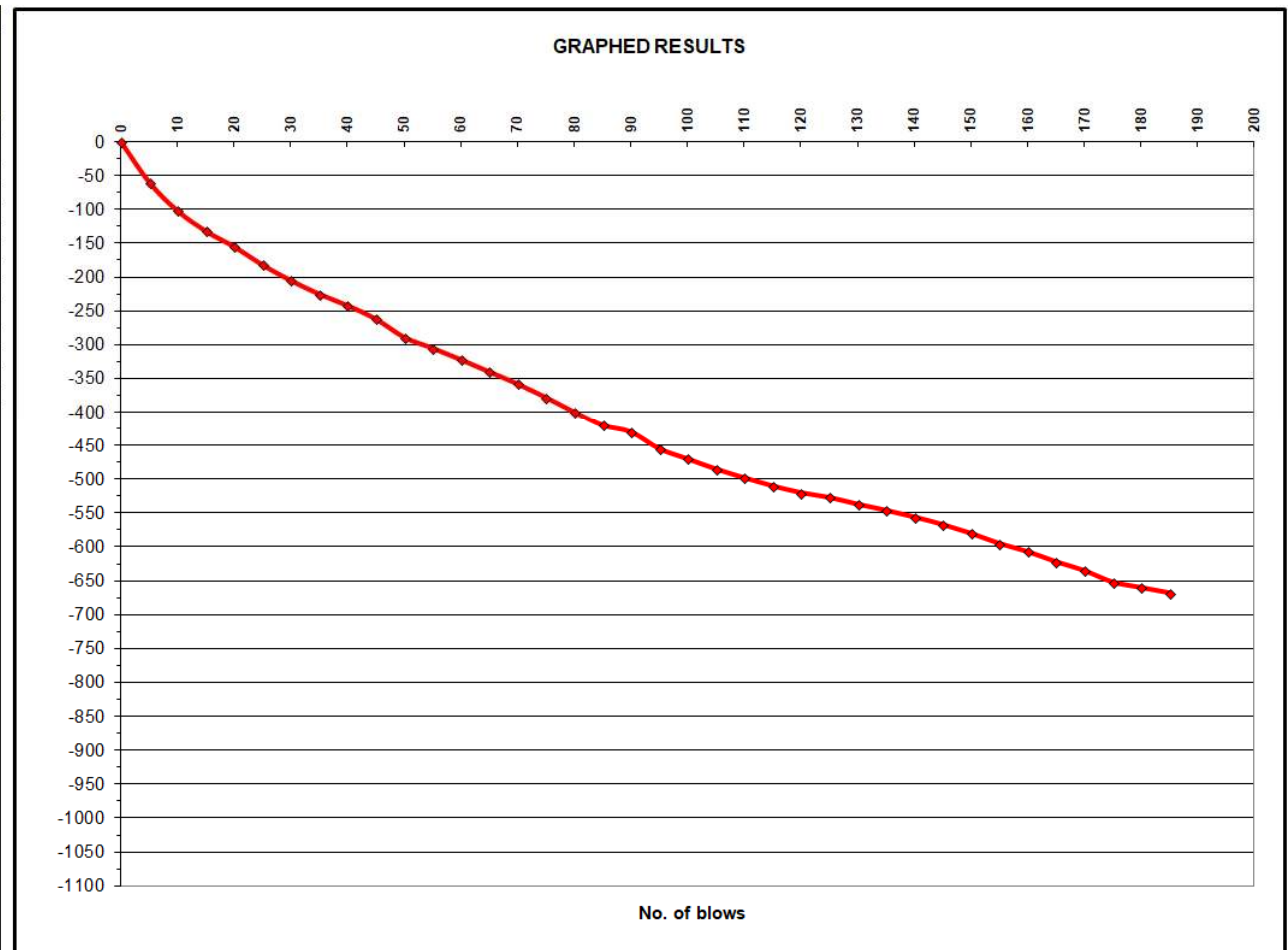
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 30				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	70	-60	12.0	193	17
10	112	-102	8.4	285	27
15	142	-132	6.0	411	42
20	165	-155	4.6	550	59
25	192	-182	5.4	461	48
30	215	-205	4.6	550	59
35	235	-225	4.0	640	70
40	252	-242	3.4	764	87
45	272	-262	4.0	640	70
50	299	-289	5.4	461	48
55	315	-305	3.2	816	94
60	332	-322	3.4	764	87
65	350	-340	3.6	718	81
70	368	-358	3.6	718	81
75	388	-378	4.0	640	70
80	410	-400	4.4	577	62
85	430	-420	4.0	640	70
90	440	-430	2.0	1362	170
95	465	-455	5.0	502	53
100	480	-470	3.0	876	102
105	495	-485	3.0	876	102
110	508	-498	2.6	1023	122
115	520	-510	2.4	1117	135
120	530	-520	2.0	1362	170
125	537	-527	1.4	2010	267
130	547	-537	2.0	1362	170
135	556	-546	1.8	1528	194
140	566	-556	2.0	1362	170
145	577	-567	2.2	1228	151
150	590	-580	2.6	1023	122
155	605	-595	3.0	876	102
160	617	-607	2.4	1117	135
165	632	-622	3.0	876	102
170	645	-635	2.6	1023	122
175	662	-652	3.4	764	87
180	670	-660	1.6	1737	226
185	678	-668	1.6	1737	226
190					
195					
200					



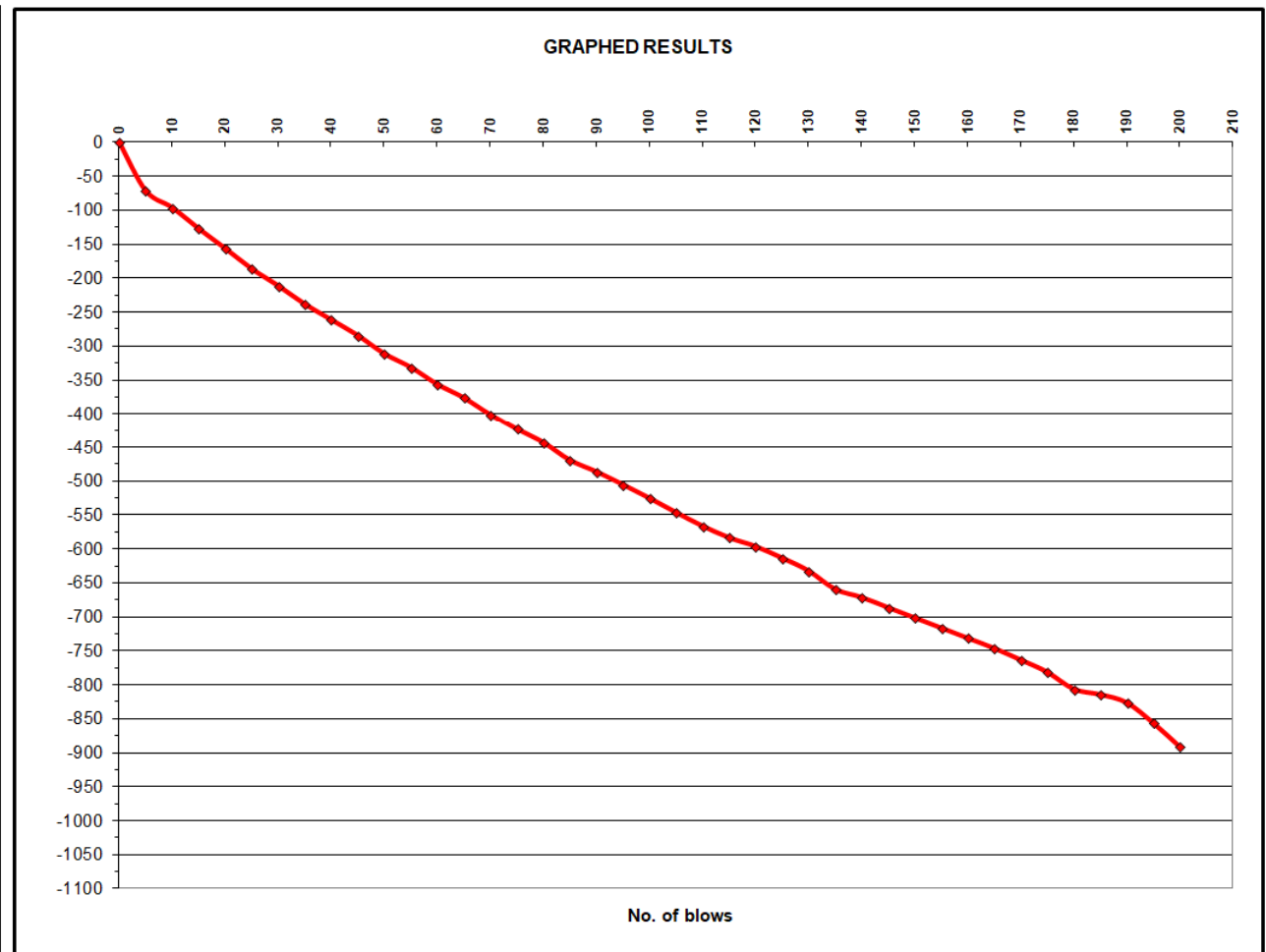
ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 31				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	9	0	0.0		
5	80	-71	14.2	161	14
10	105	-96	5.0	502	53
15	136	-127	6.2	397	40
20	165	-156	5.8	427	44
25	195	-186	6.0	411	42
30	220	-211	5.0	502	53
35	247	-238	5.4	461	48
40	270	-261	4.6	550	59
45	293	-284	4.6	550	59
50	320	-311	5.4	461	48
55	340	-331	4.0	640	70
60	365	-356	5.0	502	53
65	385	-376	4.0	640	70
70	410	-401	5.0	502	53
75	432	-423	4.4	577	62
80	452	-443	4.0	640	70
85	478	-469	5.2	481	51
90	495	-486	3.4	764	87
95	514	-505	3.8	677	75
100	534	-525	4.0	640	70
105	555	-546	4.2	607	66
110	575	-566	4.0	640	70
115	592	-583	3.4	764	87
120	605	-596	2.6	1023	122
125	622	-613	3.4	764	87
130	641	-632	3.8	677	75
135	668	-659	5.4	461	48
140	680	-671	2.4	1117	135
145	695	-686	3.0	876	102
150	710	-701	3.0	876	102
155	725	-716	3.0	876	102
160	740	-731	3.0	876	102
165	755	-746	3.0	876	102
170	772	-763	3.4	764	87
175	790	-781	3.6	718	81
180	815	-806	5.0	502	53
185	823	-814	1.6	1737	226
190	835	-826	2.4	1117	135
195	865	-856	6.0	411	42
200	900	-891	7.0	348	35
205					



ANALYSES OF DYNAMIC CONE PENETRATION TEST RESULTS

PROJECT: **EAST LONDON IDZ PLATFORM B**

DEPTH: Surface

CONDUCTED ON: Thursday, June 21, 2018

NO. OF BLOWS	TP 32				
	Values (mm)	Cumulative penetration (mm)	mm/blow	UCS (kPa)	CBR
0	10	0	0.0		
5	55	-45	9.0	264	25
10	80	-70	5.0	502	53
15	107	-97	5.4	461	48
20	130	-120	4.6	550	59
25	150	-140	4.0	640	70
30	176	-166	5.2	481	51
35	190	-180	2.8	944	111
40	200	-190	2.0	1362	170
45	215	-205	3.0	876	102
50	230	-220	3.0	876	102
55	242	-232	2.4	1117	135
60	252	-242	2.0	1362	170
65	275	-265	4.6	550	59
70	282	-272	1.4	2010	267
75	295	-285	2.6	1023	122
80	305	-295	2.0	1362	170
85	320	-310	3.0	876	102
90	330	-320	2.0	1362	170
95	345	-335	3.0	876	102
100	355	-345	2.0	1362	170
105	370	-360	3.0	876	102
110	380	-370	2.0	1362	170
115	392	-382	2.4	1117	135
120	402	-392	2.0	1362	170
125	415	-405	2.6	1023	122
130	425	-415	2.0	1362	170
135	440	-430	3.0	876	102
140	450	-440	2.0	1362	170
145	465	-455	3.0	876	102
150	470	-460	1.0	2900	410
155					
160					
165					
170					
175					
180					
185					
190					
195					
200					

