

APPENDIX C

TEST PIT LOCATIONS & SOIL PROFILES



Site 5: Test Pit Positions and Soil Zones

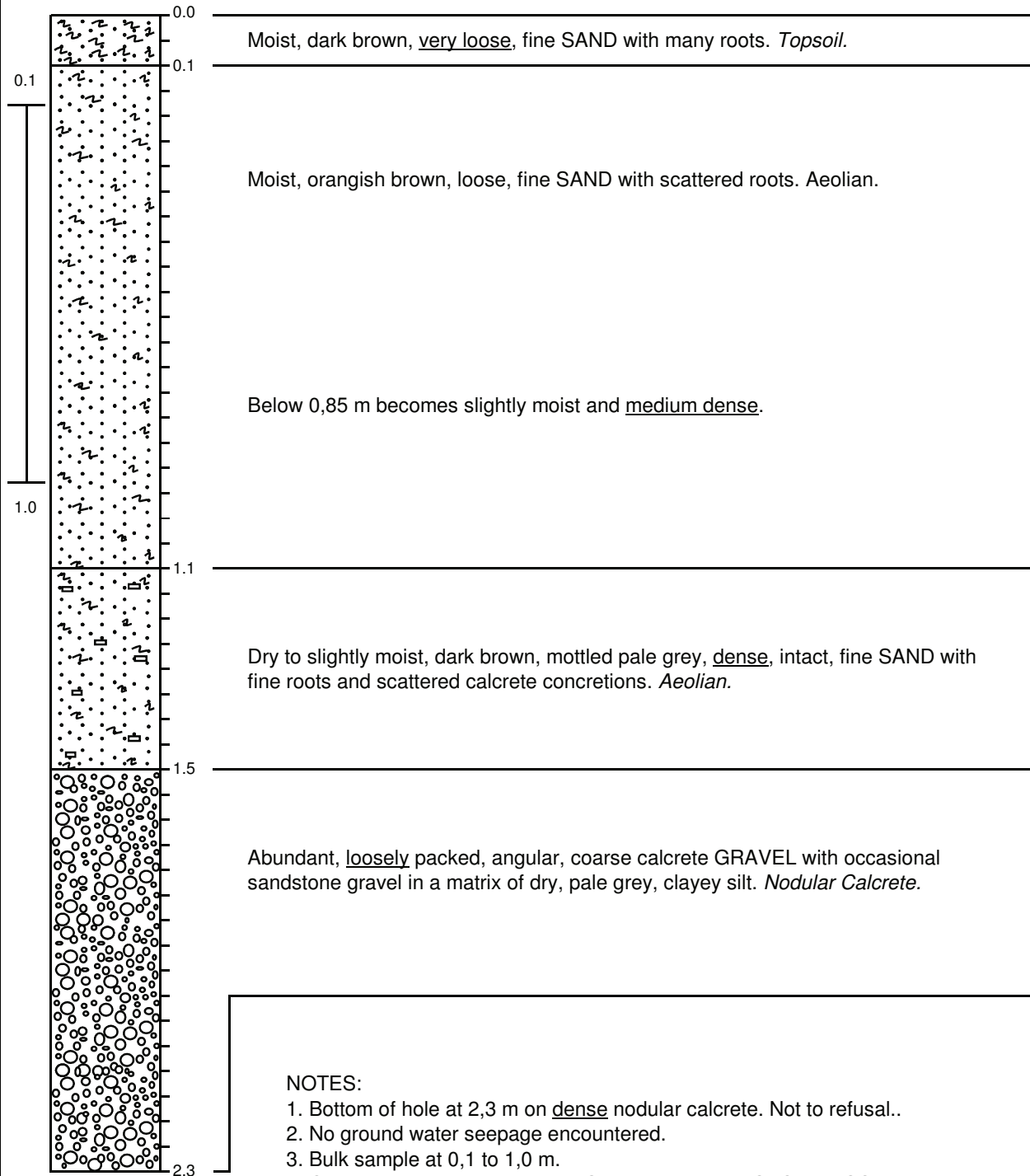
PROFILE SHEET

TH1

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618322

Y -061050



Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

- ▽ Water seepage
- ▼ Standing water
- Undisturbed sample
- Disturbed sample
- ⊥ Bulk sample
- ⊢ In-situ test

Ref: 08102/g
Sheet 1 of 1

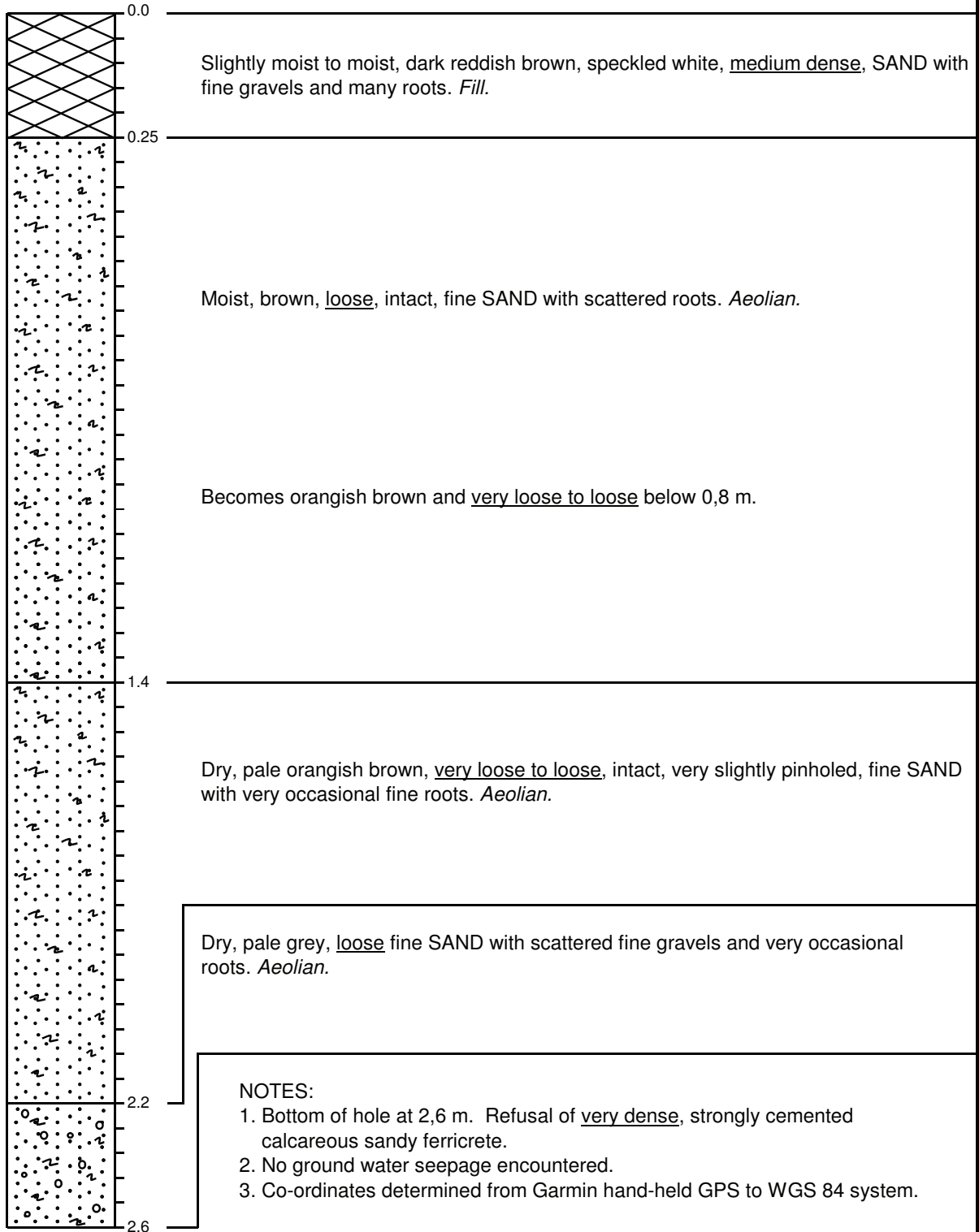
PROFILE SHEET

TH2

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618373

Y -060886



Contractor: Makeshift 1009 (PTY) LTD

Profiled by: B A Harrison

Machine: TLB CAT 416 D 4X4

Date profiled: 19/3/2009

▽ Water seepage

■ Undisturbed sample

┆ Bulk sample

Ref: 08102/g

▼ Standing water

● Disturbed sample

┆ In-situ test

Sheet 1 of 1

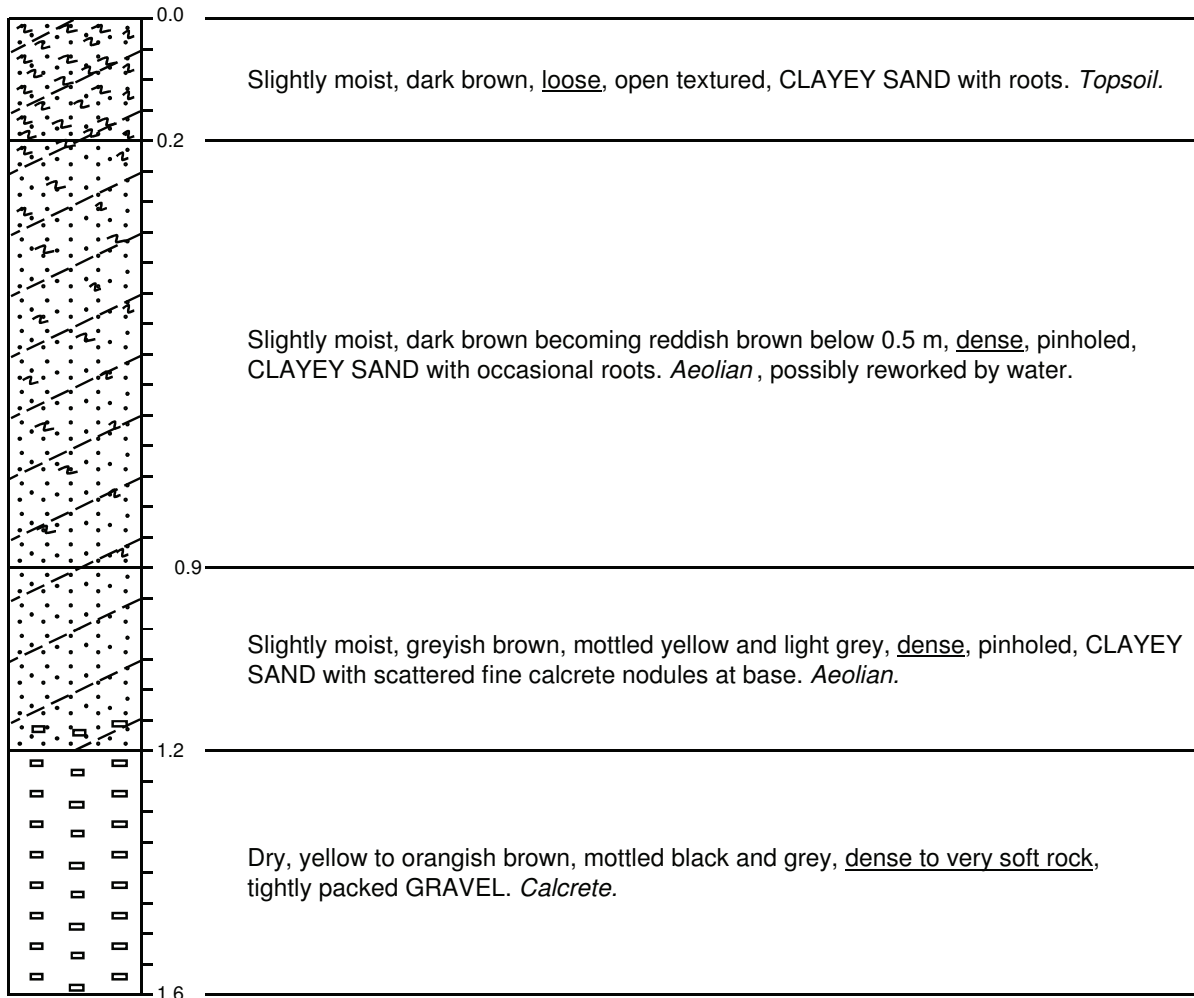
PROFILE SHEET

TH3

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618461

Y -060994



NOTES:

1. Bottom of hole at 1,6 m. Refusal on very soft rock calcrete gravel.
2. Hole stable.
3. No ground water seepage encountered.
4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Profiled by: A Schulze-Hulbe

Machine: TLB CAT 416 D 4X4

Date profiled: 19/3/2009

▽ Water seepage	■ Undisturbed sample	┃ Bulk sample
▼ Standing water	● Disturbed sample	┃ In-situ test

Ref: 08102/g

Sheet 1 of 1

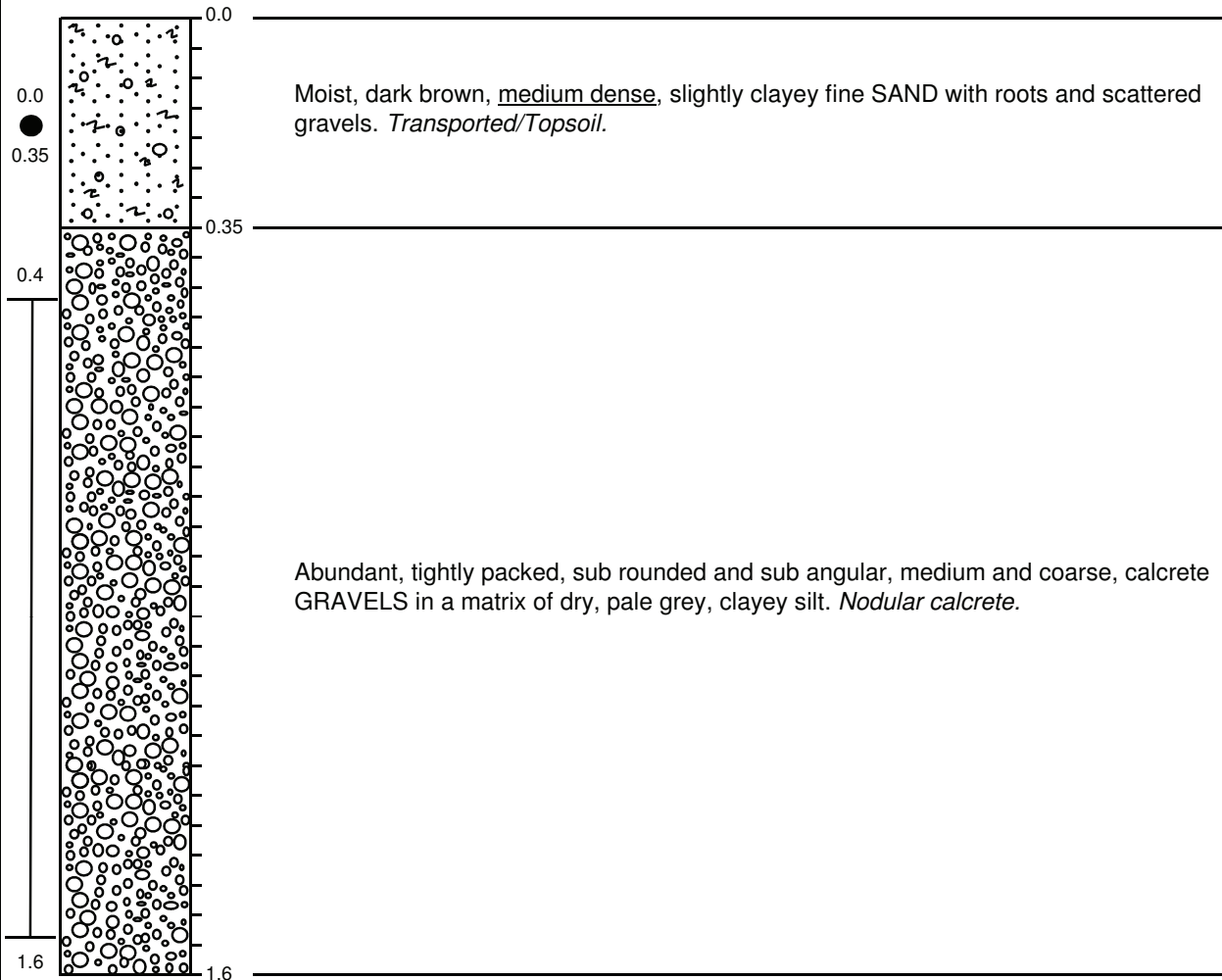
PROFILE SHEET

TH4

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618499

Y -061107



NOTES:

1. Bottom of hole at 1,6 m. Partial refusal on sandstone boulders.
2. No ground water seepage encountered.
3. Bulk sample taken between 0,4 to 1,6 m.
4. Disturbed sample taken between 0,0 to 0,35 m.
5. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison

Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	┆ Bulk sample
▼ Standing water	● Disturbed sample	┆ In-situ test

Ref: 08102/g

Sheet 1 of 1

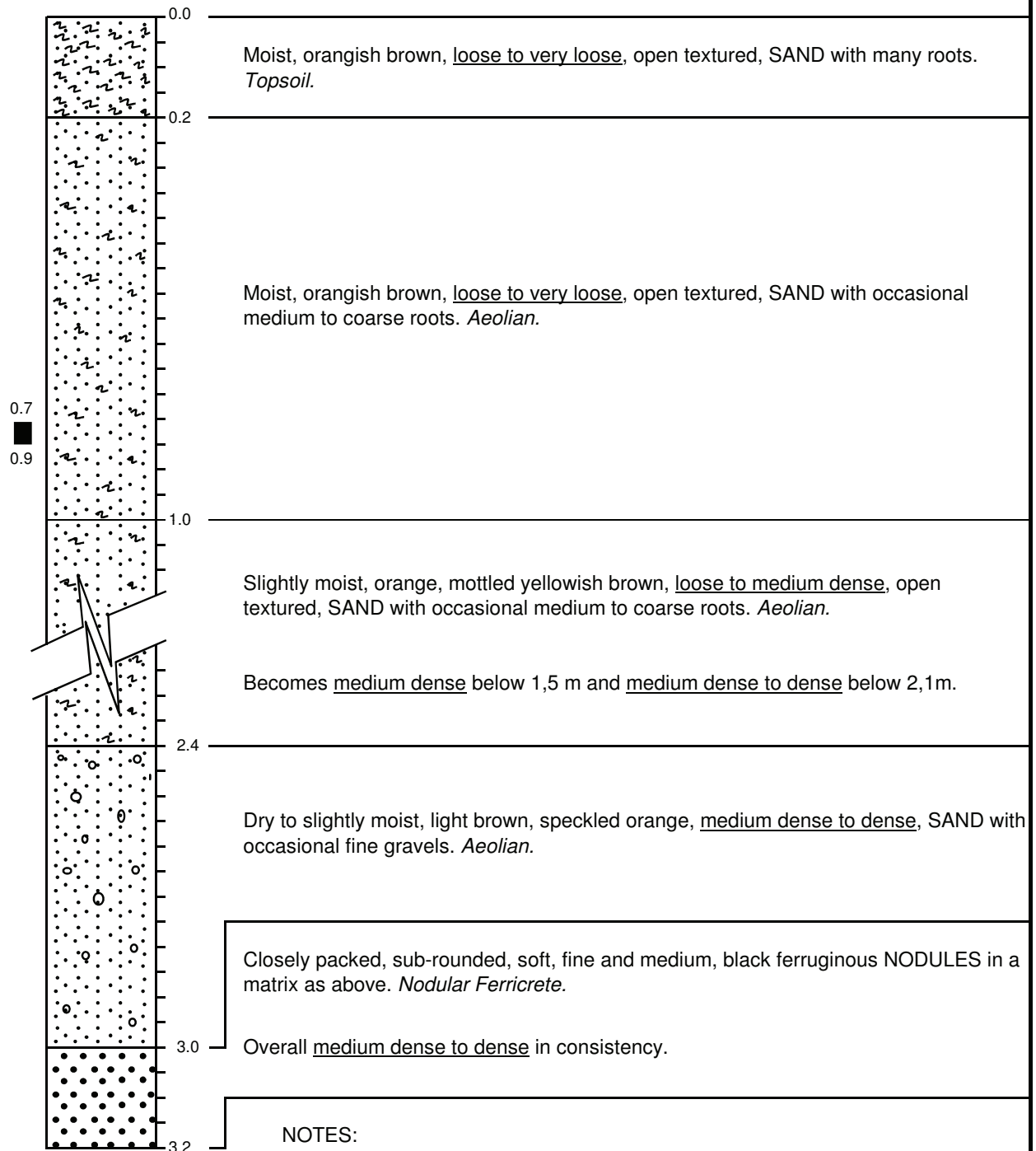
PROFILE SHEET

TH5

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618440

Y -060682



NOTES:

1. Bottom of hole at 3,2 m. Partial refusal on dense ferruginous nodules.
2. No ground water seepage encountered.
3. Undisturbed sample taken between 0,7 to 0,9 m.
4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Profiled by: M C Shuping

Machine: TLB CAT 416 D 4X4

Date profiled: 19/3/2009

▽ Water seepage
▼ Standing water

■ Undisturbed sample
● Disturbed sample

I Bulk sample
H In-situ test

Ref: 08102/g

Sheet 1 of 1

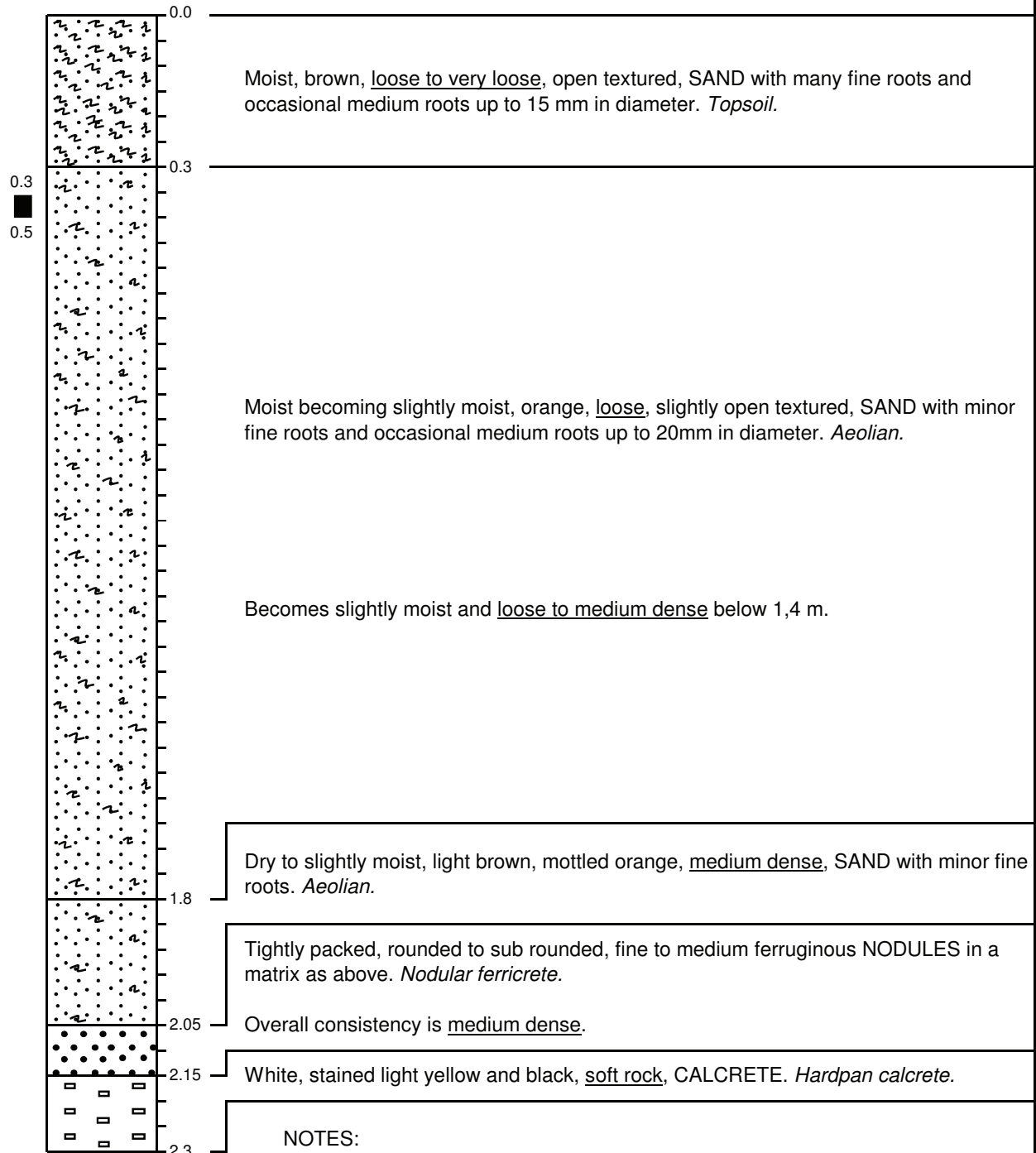
PROFILE SHEET

TH6

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618504

Y -060783



- NOTES:
1. Bottom of hole at 2,3 m. Refusal on soft rock calcrete.
 2. No ground water seepage encountered.
 3. Undisturbed sample taken at 0,3 to 0,5 m.
 4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: M C Shuping
Date profiled: 19/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	— In-situ test

Ref: 08102/g
Sheet 1 of 1

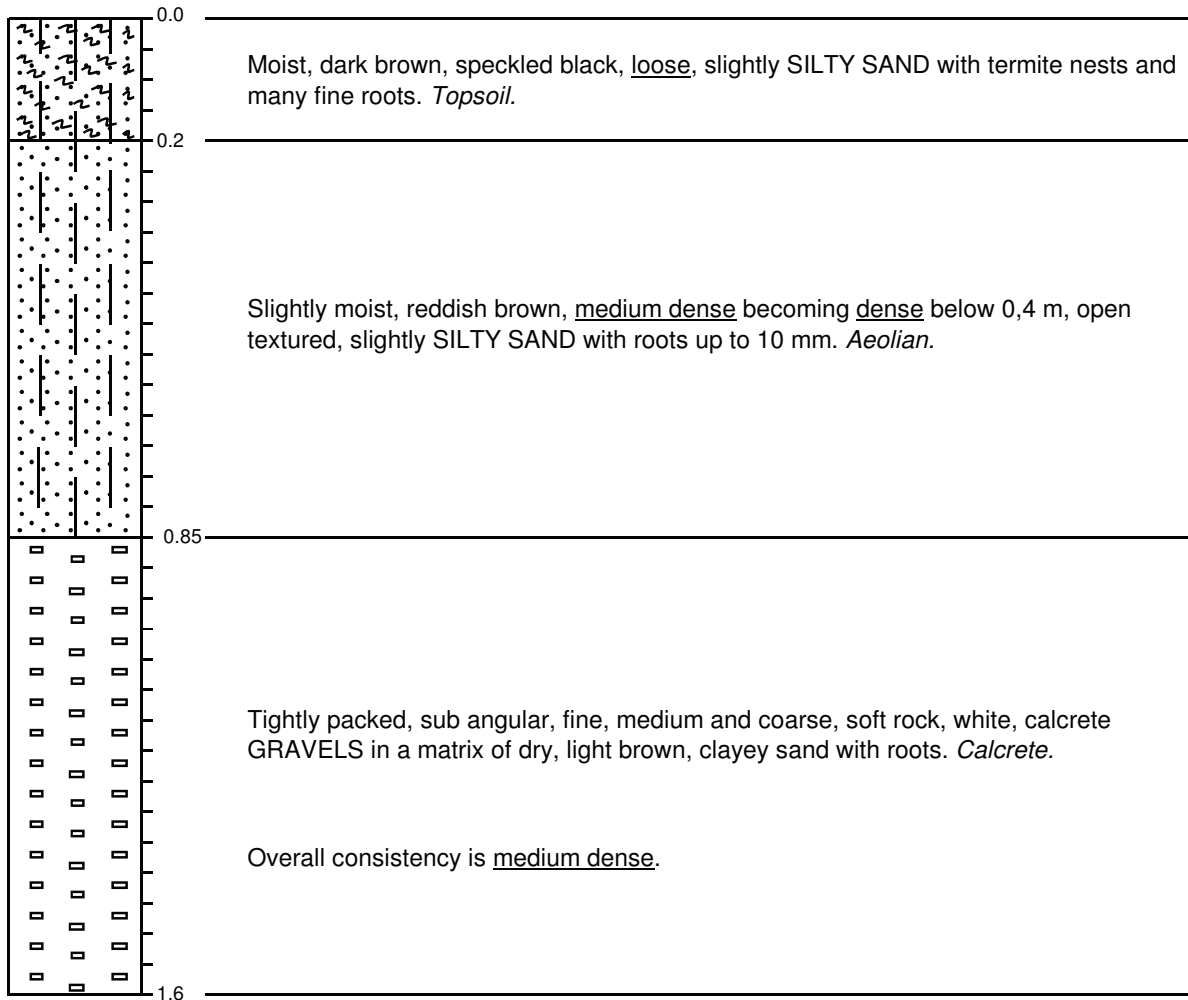
PROFILE SHEET

TH7

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618555

Y -060957



NOTES:

1. Bottom of hole at 1,6 m. Partial refusal on calcrete described above.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: M C Shuping
Date profiled: 19/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	— In-situ test

Ref: 08102/g

Sheet 1 of 1

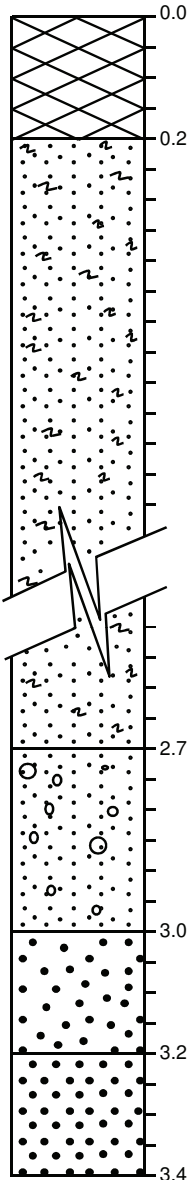
PROFILE SHEET

TH8

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618579

Y -060669



Closely packed, sub rounded and sub angular, fine, medium and coarse, soft to medium hard calcrete GRAVELS in a matrix of moist, dark brown, clayey sand with roots. *Fill*.

Overall consistency is medium dense.

Moist, brown becoming orange below 1m, loose, slightly open textured, fine SAND with occasional roots. *Aeolian*.

Becomes slightly moist below 1,8 m.

Dry to slightly moist, light brown, speckled orange, medium dense, fine SAND with fine and medium gravels. *Aeolian*.

Tightly packed, rounded and sub rounded, fine to medium, soft to medium hard, ferruginous NODULES in a matrix of dry slightly moist, light brown, sand. *Nodular Ferricrete*.

Overall medium dense in consistency.

Black stained orange, strongly cemented soft rock *Hardpan Ferricrete*.

NOTES:

1. Bottom of hole at 3,4 m. Refusal on soft rock hardpan ferricrete.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: M C Shuping
Date profiled: 19/3/2009

▽ Water seepage	■ Undisturbed sample	⊥ Bulk sample
▼ Standing water	● Disturbed sample	⊢ In-situ test

Ref: 08102/g
Sheet 1 of 1

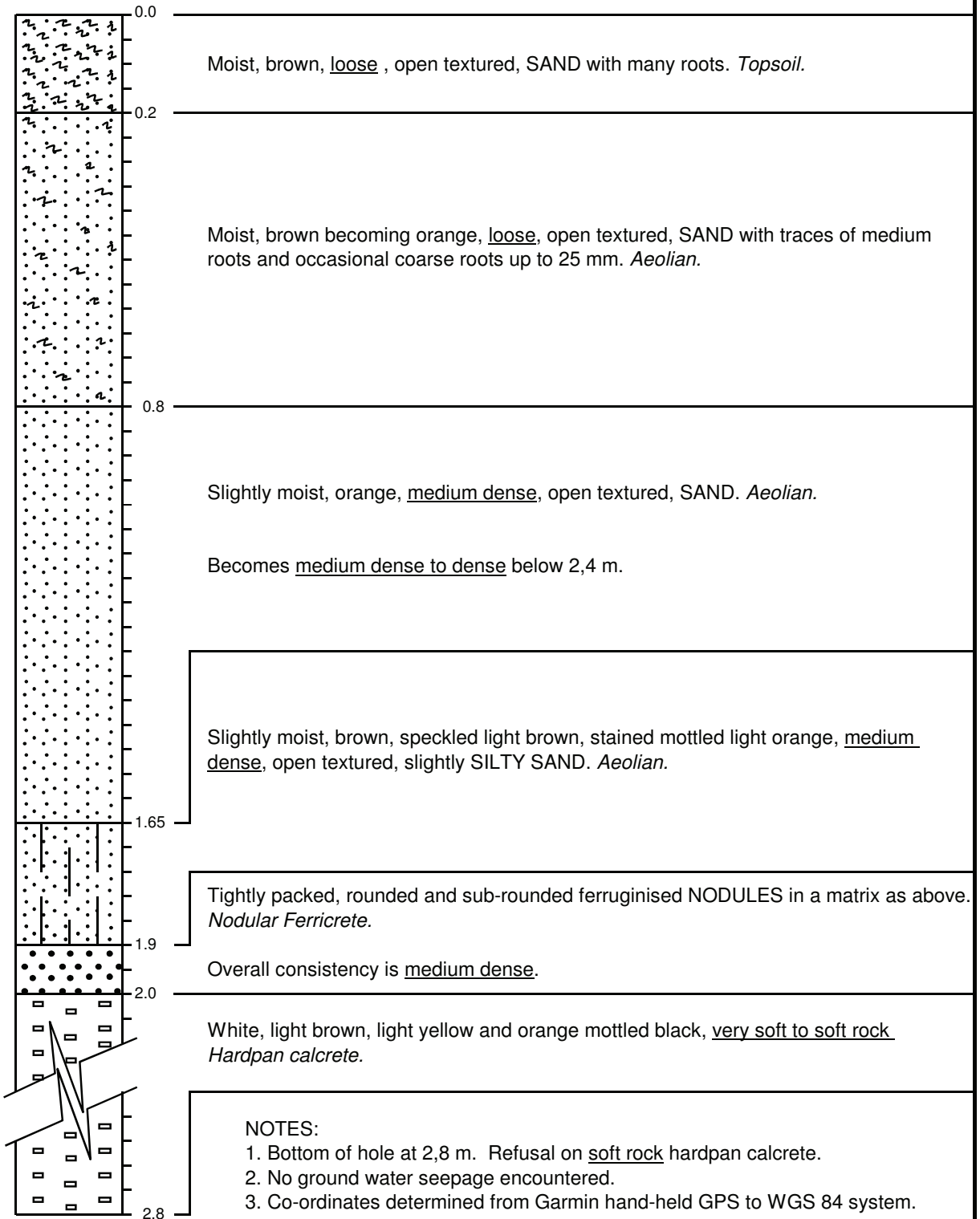
PROFILE SHEET

TH9

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618583

Y -060824



Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: M C Shuping
Date profiled: 19/3/2009

- ▽ Water seepage ■ Undisturbed sample I Bulk sample
- ▼ Standing water ● Disturbed sample H In-situ test

Ref: 08102/g
Sheet 1 of 1

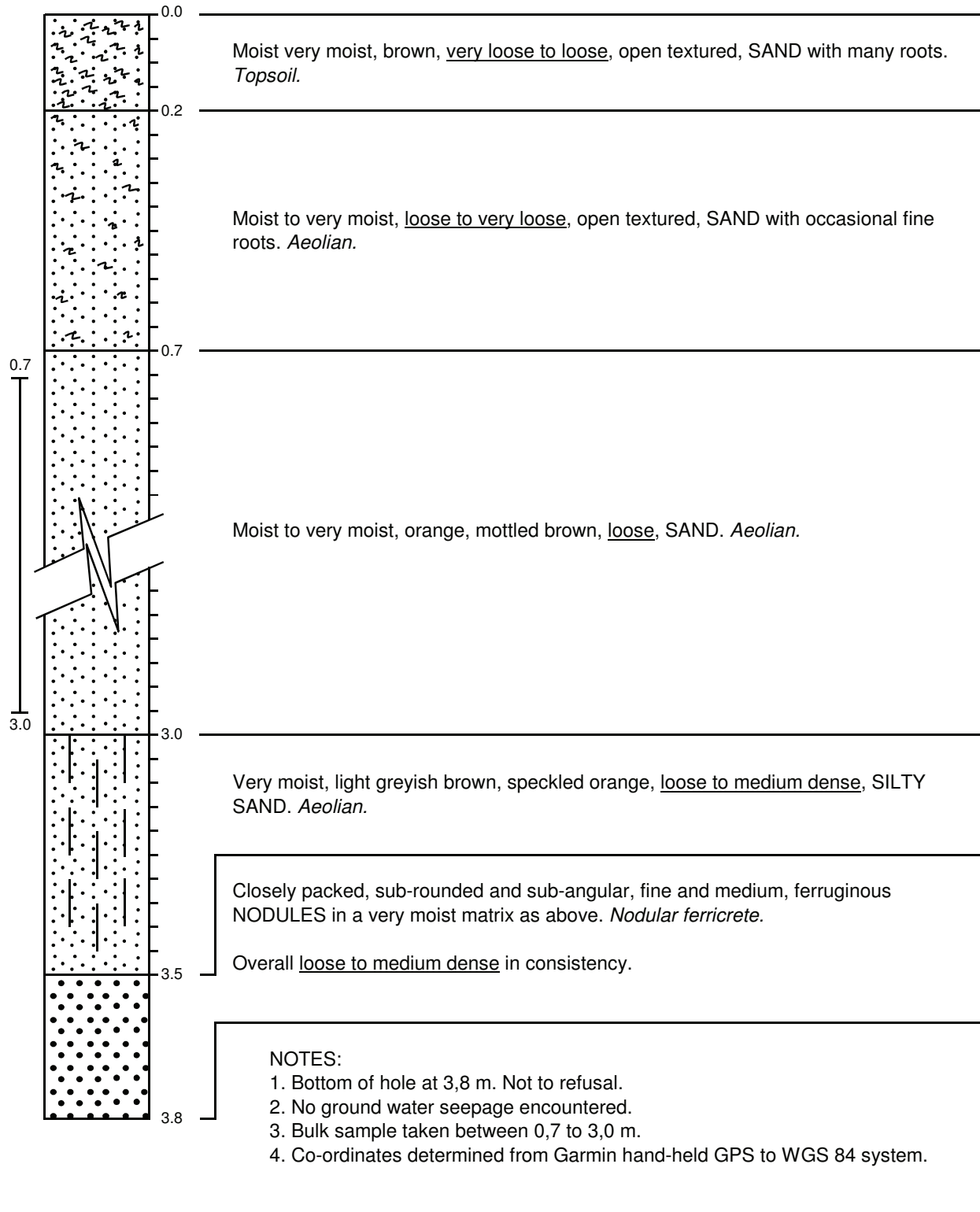
PROFILE SHEET

TH10

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618644

Y -060508



Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: M C Shuping
Date profiled: 19/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	— In-situ test

Ref: 08102/g
Sheet 1 of 1

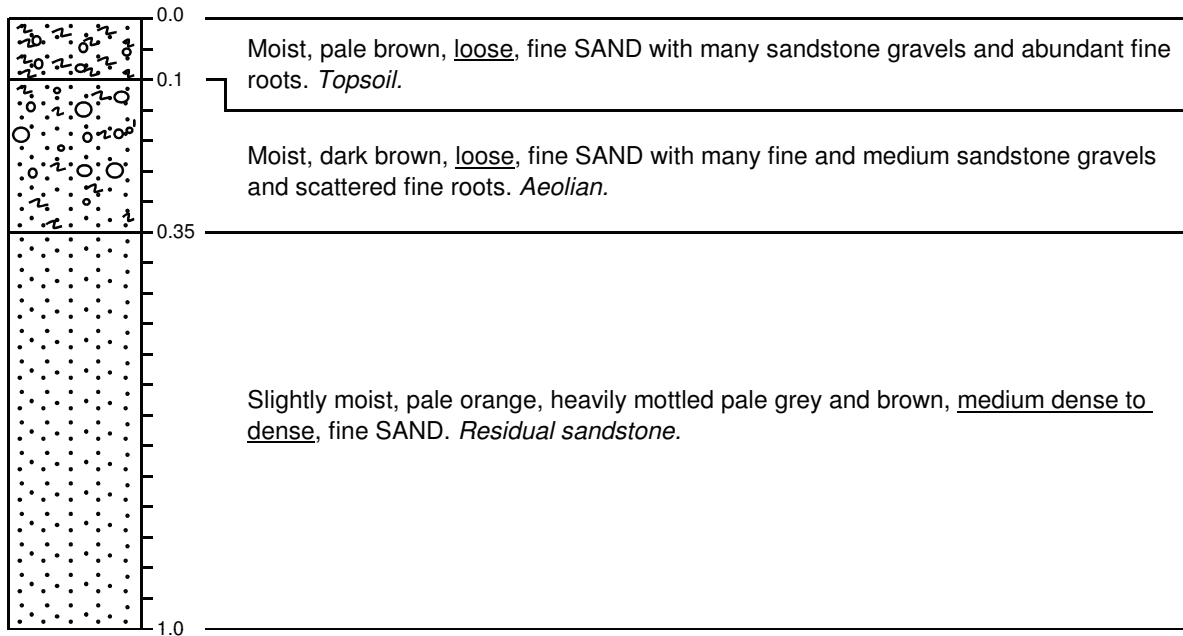
PROFILE SHEET

TH11

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618667

Y -061039



NOTES:

1. Bottom of hole at 1,0 m. Partial refusal on dense sandstone.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	H <i>In-situ</i> test

Ref: 08102/g

Sheet 1 of 1

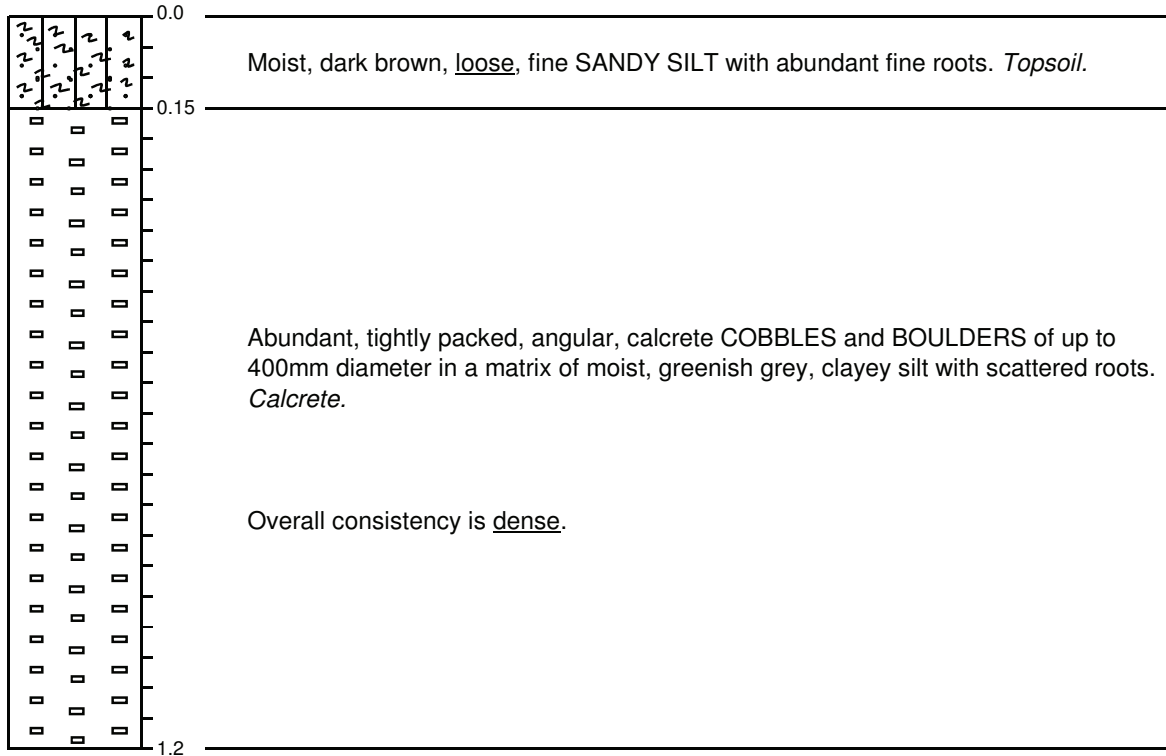
PROFILE SHEET

TH12

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618707

Y -061150



NOTES:

1. Bottom of hole at 1,2 m. Refusal on very tightly packed calcrete boulders.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	H In-situ test

Ref: 08102/g

Sheet 1 of 1

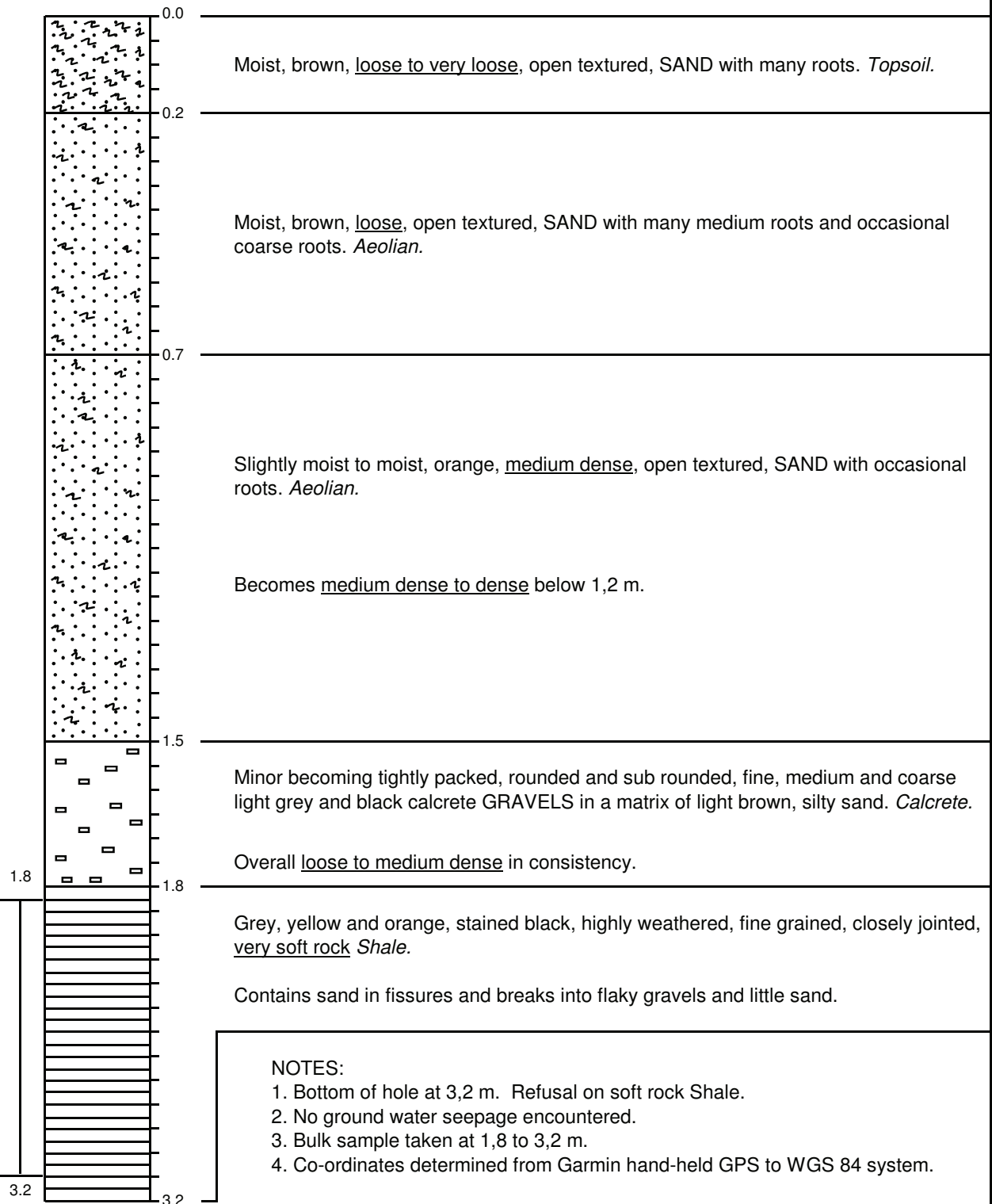
PROFILE SHEET

TH13

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618734

Y -060661



Contractor: Makeshift 1009 (PTY) LTD

Profiled by: M C Shuping

Machine: TLB CAT 416 D 4X4

Date profiled: 19/3/2009

▽ Water seepage

■ Undisturbed sample

I Bulk sample

Ref: 08102/g

▼ Standing water

● Disturbed sample

— In-situ test

Sheet 1 of 1

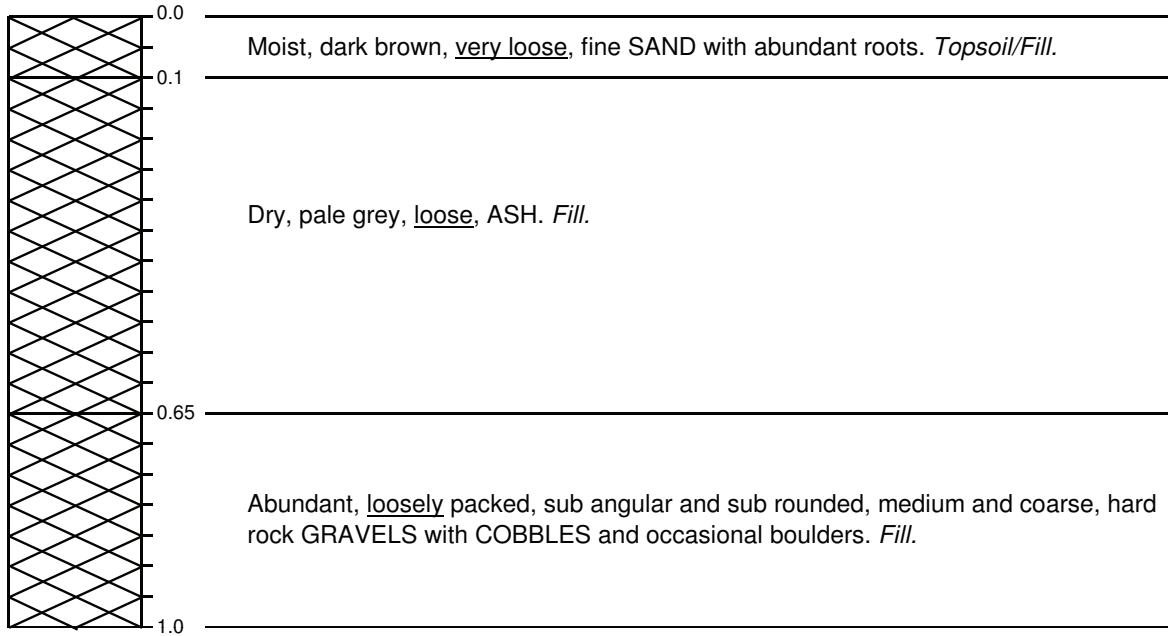
PROFILE SHEET

TH14

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618656

Y -060904



NOTES:

1. Bottom of hole at 1,0 m. Partial refusal on boulders.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	H <i>In-situ</i> test

Ref: 08102/g

Sheet 1 of 1

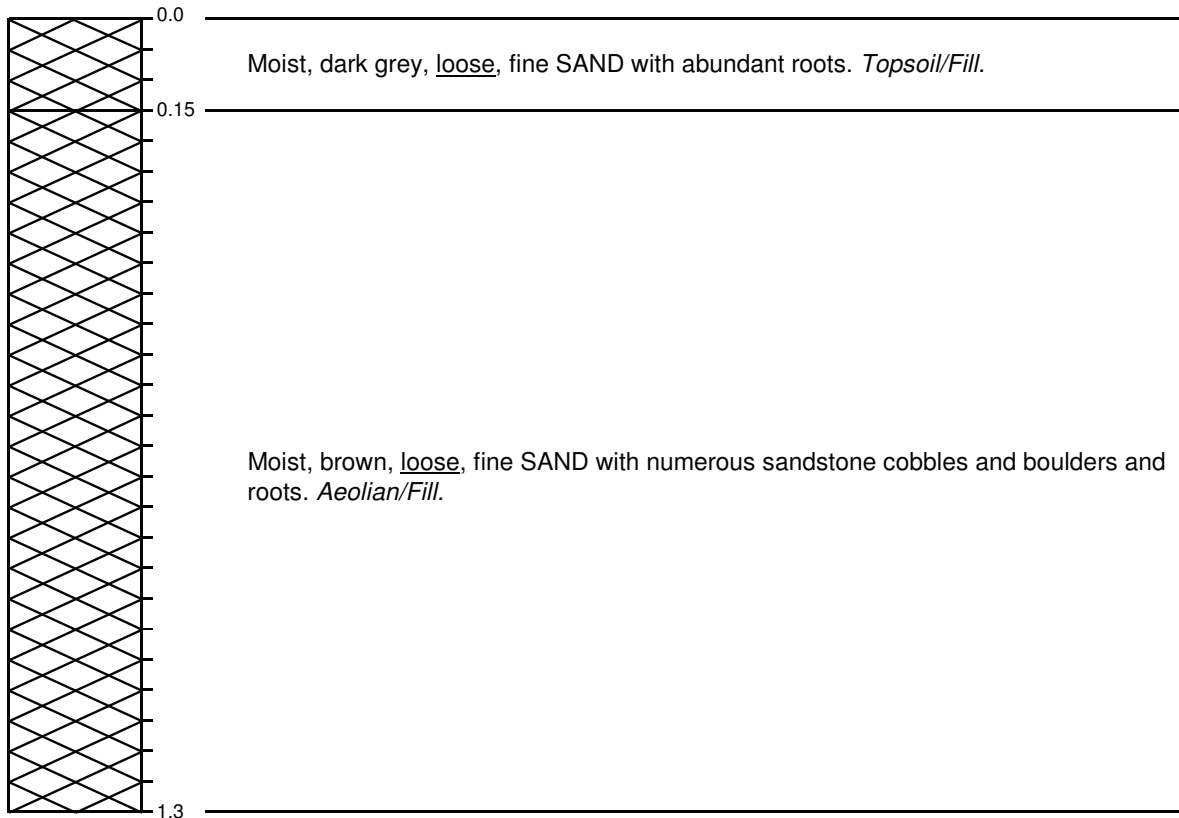
PROFILE SHEET

TH15

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618771

Y -061025



NOTES:

1. Bottom of hole at 1,3 m. Refusal on large sandstone boulders.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison

Date profiled: 18/3/2009

▽ Water seepage

■ Undisturbed sample

I Bulk sample

▼ Standing water

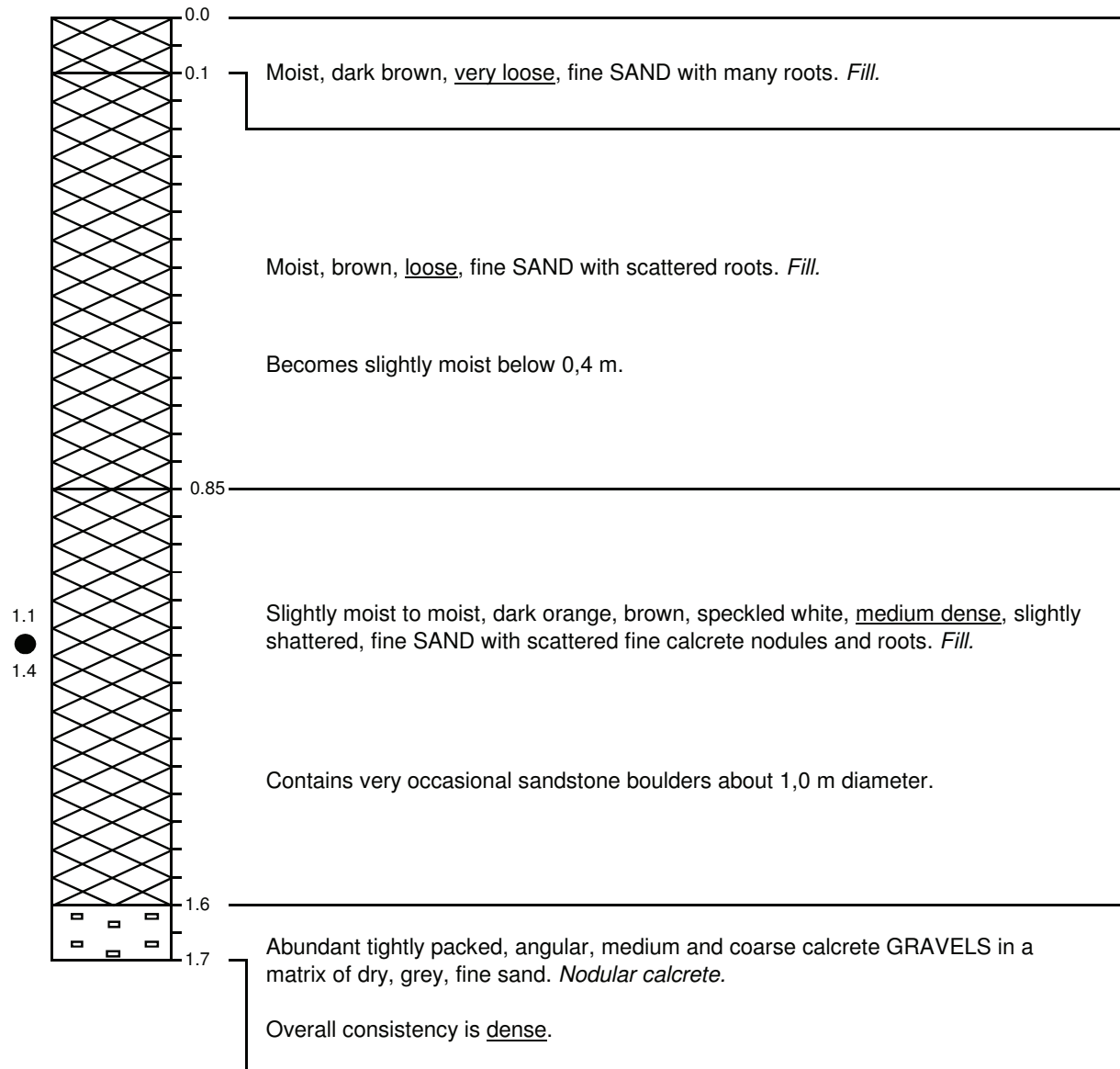
● Disturbed sample

⊔ In-situ test

Ref: 08102/g

Sheet 1 of 1

PROFILE SHEET	TH16
Environment Impact Assessment - Eskom Proposed New General Landfill Facility, Lephalale	X 2618950 Y -060933



NOTES:

1. Bottom of hole at 1,7 m. Refusal on sandstone boulders.
2. No ground water seepage encountered.
3. Disturbed sample taken between 1,1 to 1,4 m.
4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
 Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
 Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	H In-situ test

Ref: 08102/g
Sheet 1 of 1

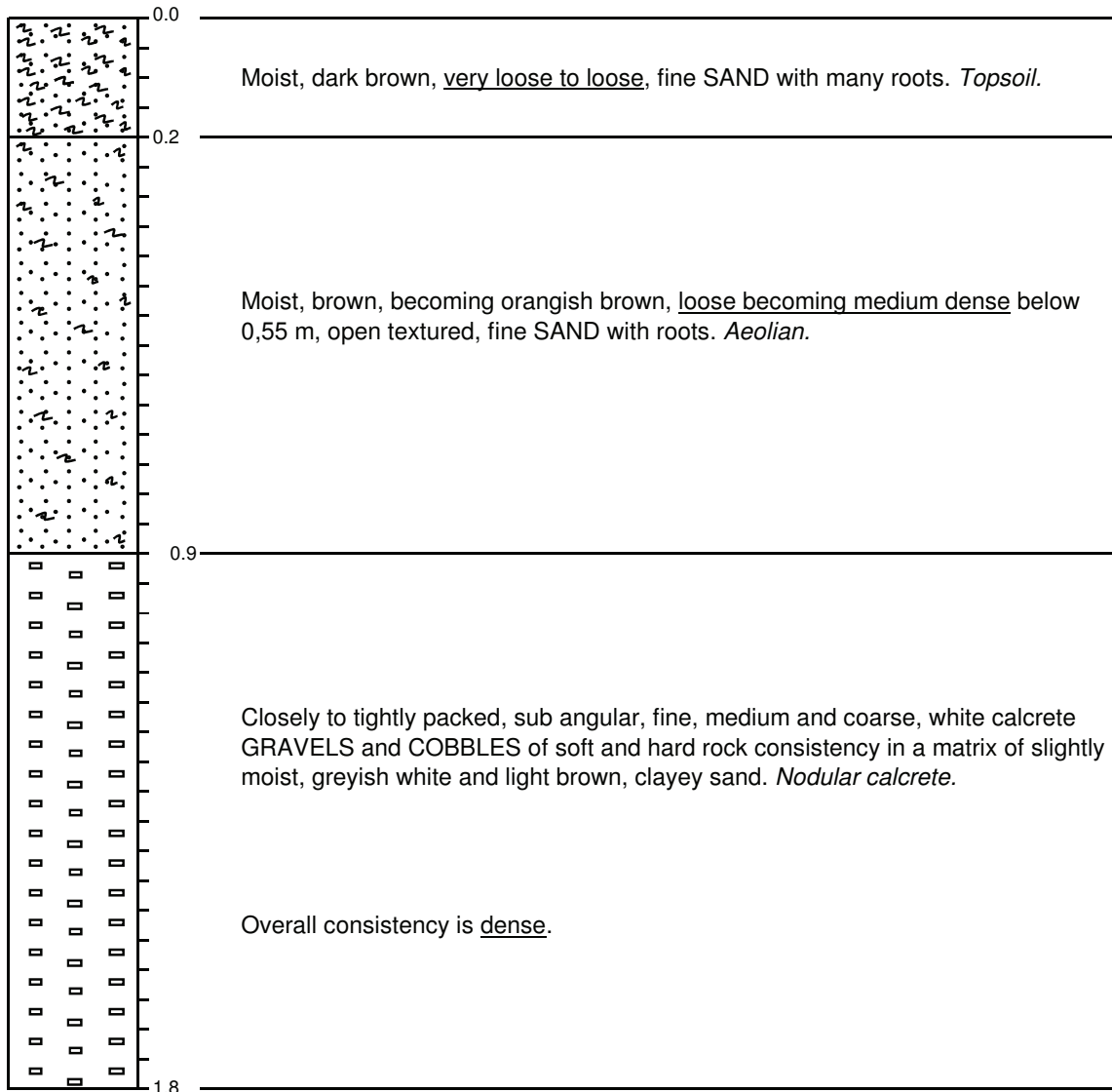
PROFILE SHEET

TH17

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618895

Y -061075



NOTES:

1. Bottom of hole at 1,8 m. Refusal on very dense calcrete.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: M C Shuping
Date profiled: 19/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	H <i>In-situ</i> test

Ref: 08102/g

Sheet 1 of 1

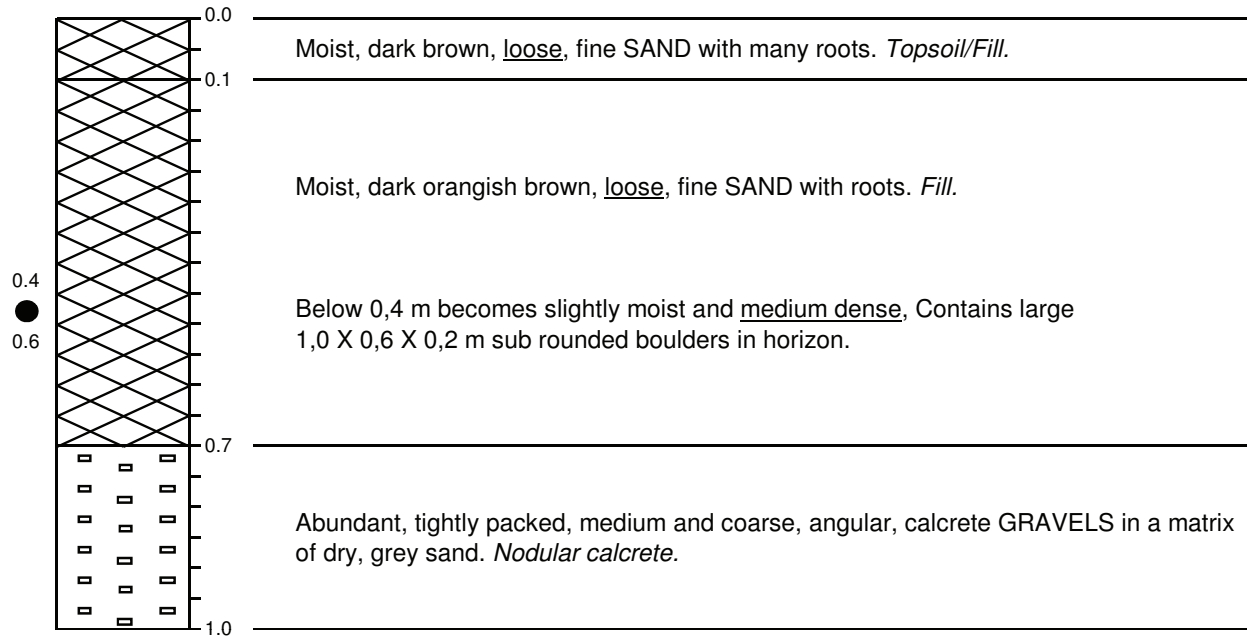
PROFILE SHEET

TH18

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2619027

Y -061046



NOTES:

1. Bottom of hole at 1,0 m. Refusal on sandstone boulders.
2. No ground water seepage encountered.
3. Disturbed sample taken at 0,4 to 0,6 m.
4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	I Bulk sample
▼ Standing water	● Disturbed sample	— In-situ test

Ref: 08102/g

Sheet 1 of 1

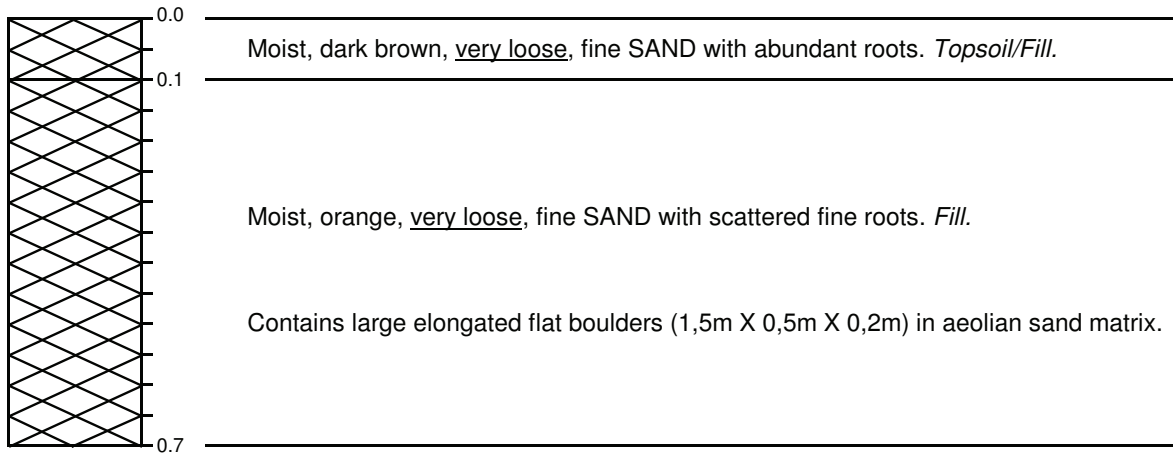
PROFILE SHEET

TH19

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2618966

Y -061177



NOTES:

1. Bottom of hole at 0,7 m. Refusal on pale yellow, medium weathered, coarse grained, widely jointed, soft to medium hard rock, sandstone.
Contains large elongated flat boulders (1,5m X 0,5m X 0,2m) in aeolian sand matrix.
2. No ground water seepage encountered.
3. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD
Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison
Date profiled: 18/3/2009

▽ Water seepage	■ Undisturbed sample	⊥ Bulk sample
▼ Standing water	● Disturbed sample	⊢ <i>In-situ</i> test

Ref: 08102/g

Sheet 1 of 1

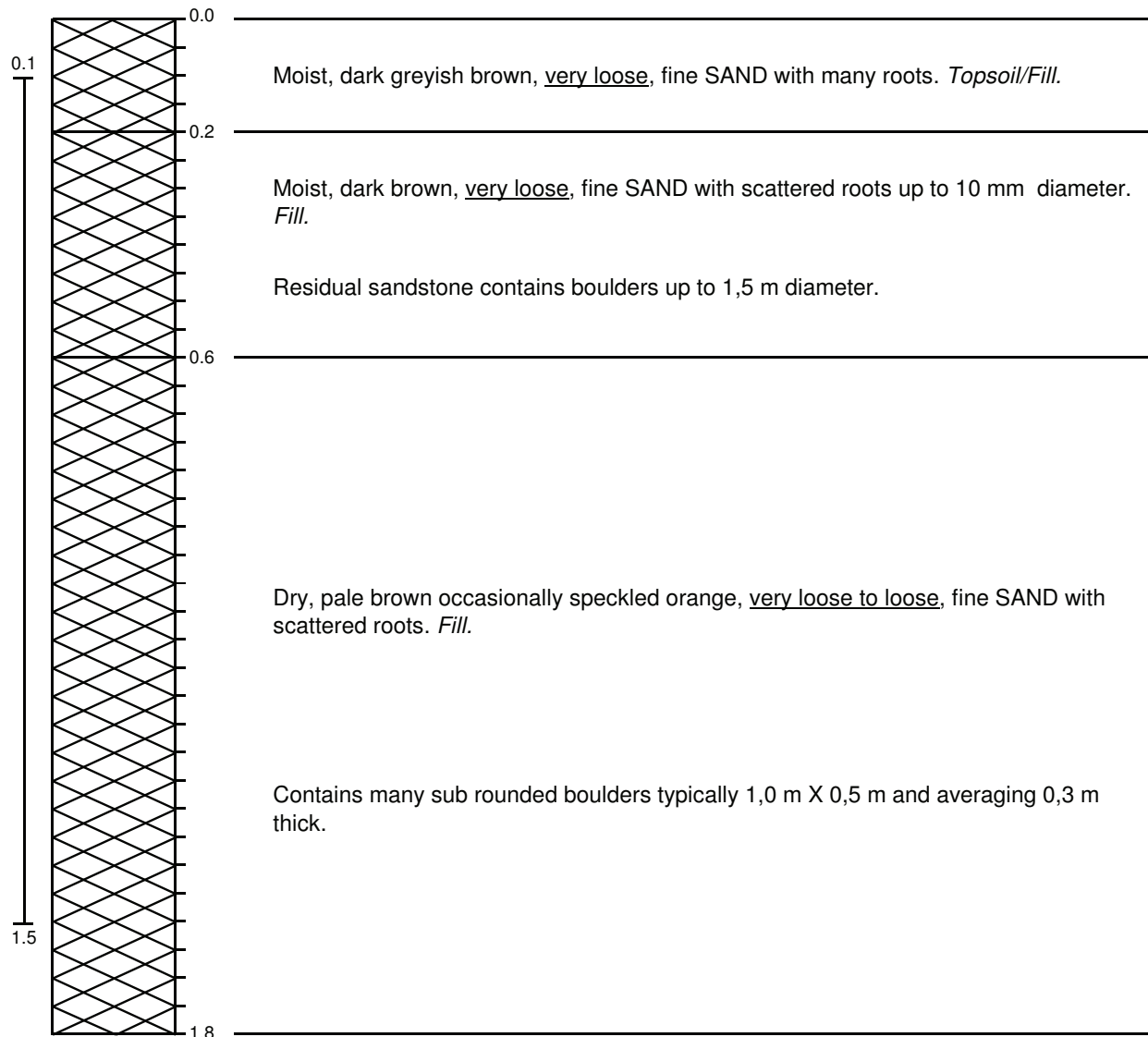
PROFILE SHEET

TH20

**Environment Impact Assessment - Eskom
Proposed New General Landfill Facility, Lephalale**

X 2619168

Y -061182



NOTES:

1. Bottom of hole at 1,8 m. Refusal on sandstone boulders.
2. No ground water seepage encountered.
3. Bulk sample taken at 0,1 to 1,5 m.
4. Co-ordinates determined from Garmin hand-held GPS to WGS 84 system.

Contractor: Makeshift 1009 (PTY) LTD

Machine: TLB CAT 416 D 4X4

Profiled by: B A Harrison

Date profiled: 18/3/2009

▽ Water seepage

■ Undisturbed sample

⊥ Bulk sample

▼ Standing water

● Disturbed sample

⊢ In-situ test

Ref: 08102/g

Sheet 1 of 1

APPENDIX D

BOREHOLE LOCATIONS & BOREHOLE PROFILES