

**ANNEXURE G**

**SOIL CORROSITIVITY REPORT**



**LEGEND:**  
 BULK WATER PIPELINE:  
 ————  
 PROVINCIAL ROADS:  
 ————  
 PRIVATE ROADS:  
 ————

LIST OF DRAWINGS	
SHEET	DESCRIPTION
X XXX	XXX
X XXX	XXX
X XXX	XXX

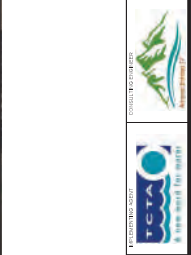
**BERG RIVER VOELVLEI AUGMENTATION SCHEME (BRVAS)**  
**GEOTECHNICAL INVESTIGATION**  
 GENERAL LAYOUT

DEPARTMENT OF WATER AFFAIRS  
 REPUBLIC OF SOUTH AFRICA  
 HEAD OFFICE  
 PRIVATE BAG X313  
 PRETORIA 0001

SEKONEN BUILDING  
 186 TROMPSBURG STREET  
 PRETORIA 0001  
 (012) 335-7500

DATE: 2024/08/15  
 DESIGNER: T. MOKUYANA  
 DATE: 2024/08/15  
 EXTERNAL APPROVAL:

NO.	DATE	REVISION DESCRIPTION



NO.	DATE	REVISION DESCRIPTION

APPROVAL	DATE	SCALE	1:2000000
DESIGNED	DATE	BY	
CHECKED	DATE	BY	
DRAWN	DATE	BY	
NAME	DATE	BY	
DATE			

021.001-B-G3-100



**GENERAL LAYOUT**  
SCALE: 1:10000

LIST OF DRAWINGS	
SHEET	DESCRIPTION
X XXX	XXX
X XXX	XXX
X XXX	XXX
X XXX	XXX

DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA		SCHEMEN BUILDING 186 TROMPSBURG STREET PRETORIA 001 (012) 335-7500	
HEAD OFFICE	PRETORIA	DATE	DATE
DESIGNER	T. MOKOYANA	EXTERNAL APPROVAL	DATE
PROVINCE	WESTERN CAPE	LOCALITY	NO. XXX
DISTRICT	DAKENSTEM/SMARTLAND	KEYCODES	
TENDER/ CONTRACT	NO. XXX	SHEET	2 of 13
DATE	FILE XXX	REV.	0

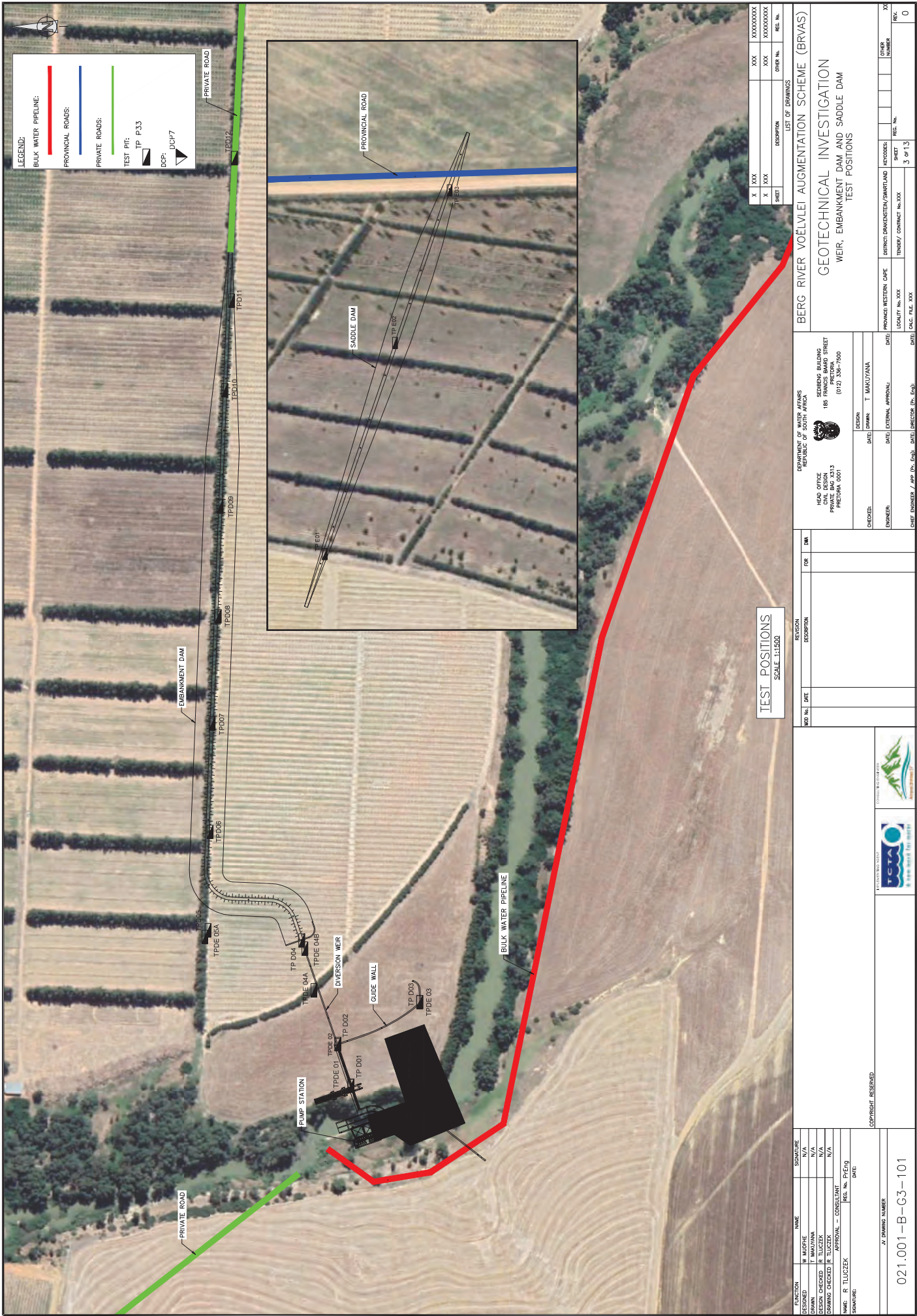
REVISION	DATE	DESCRIPTION

NO. 1	DATE	DESCRIPTION

LOCATION	NAME	SIGNATURE
DESIGNED	T. MOKOYANA	N/A
DRAWN	R. TLUCEK	N/A
DESIGN CHECKED	R. TLUCEK	N/A
DRAWING CHECKED	R. TLUCEK	N/A
NAME	R. TLUCEK	APPROVAL - CONSULTANT
SIGNATURE		REG. NO. PREG
		DATE

DRAWING NUMBER	
021.001-D-G3-100	

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**TEST POSITIONS**  
SCALE 1:11500

LIST OF DRAWINGS	
SHEET	DESCRIPTION
X XXX	XXX
X XXX	XXX
X XXX	XXX
X XXX	XXX

DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA HEAD OFFICE PRIVATE BAG X313 PRETORIA 0001 DESIGN BUILDING 186 TROOPERS STREET PRETORIA (012) 338-7500		BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS) GEOTECHNICAL INVESTIGATION WEIR, EMBANKMENT DAM AND SADDLE DAM TEST POSITIONS	
CREDITOR: DATE: 08/01/2011 DESIGN: T. MAKUZYANA	DATE: 08/01/2011 EXTERNAL APPROVAL:	PROVINCE: WESTERN CAPE LOCALITY: No. XXX TENDER / CONTRACT No. XXX DATE: 08/01/2011	DISTRICT: DAKENIS/SMARTLAND SHEET: 3 of 13 REG. No.: 0
REVISION NO. DATE DESCRIPTION FOR DIM		COPYRIGHT RESERVED	
PROJECT INFORMATION PROJECT NO. 021.001-B-G3-101 PROJECT NAME: BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS)		DRAWING INFORMATION DRAWING NO. 021.001-B-G3-101 DATE: 08/01/2011	
DESIGNER: R. TLUCZEK CHECKED: R. TLUCZEK APPROVAL - CONSULTANT: R. TLUCZEK SIGNATURE:		SIGNATURE: N/A DATE: N/A	



**LEGEND:**

- BULK WATER PIPELINE: —
- PROVINCIAL ROADS: —
- PRIVATE ROADS: —
- TEST PIT:
- TP: P.33
- DCP: DCP7

**TEST PIT POSITIONS**  
SCALE: 1:2000

SHEET	DESCRIPTION	OTHER No.	REG. No.
X XXX	XXX	XXX	XXXXXXXXXX
X XXX	XXX	XXX	XXXXXXXXXX

DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA		SCHEMATA BUILDING 166 WINDMILL STREET PRETORIA (012) 336-7500	
HEAD OFFICE	PRETORIA	DATE	EXTERNAL APPROVAL
ENGINEER	DATE	PROVINCE	WESTERN CAPE
LOCALITY No. XXX	TOWN/ CONTRACT No. XXX	SHEET	4 of 13
DATE: 14.01.2011	DATE: 14.01.2011	OTHER NUMBER	0

BERG RIVER VOELWEI AUGMENTATION SCHEME (BRVAS)	
GEOTECHNICAL INVESTIGATION	
BULK WATER PIPELINE	
TEST PIT POSITIONS	
CHAINAGE 0000 TO CHAINAGE 1500	

NO.	DATE	REVISION	FOR	BY

DESIGNER	NAME	DATE
CHECKED	NAME	DATE
APPROVAL	NAME	DATE

PROJECT NUMBER	021.001-D-G3-101
DATE	
SCALE	



**LEGEND:**

**BULK WATER PIPELINE:**

— (Red line)

**PROVINCIAL ROADS:**

— (Blue line)

**PRIVATE ROADS:**

— (Green line)

**TEST PIT:**

TP P33 (Black square)

DCP (Black triangle)

DCP7 (Black triangle)

SHEET	DESCRIPTION	OTHER No.	REG. No.
X XXX		XXX	XXXXXXXXXX
X XXX		XXX	XXXXXXXXXX

**LIST OF DRAWINGS**

SHEET	DESCRIPTION	OTHER No.	REG. No.
X XXX		XXX	XXXXXXXXXX
X XXX		XXX	XXXXXXXXXX

**BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS)**

**GEOTECHNICAL INVESTIGATION**

**BULK WATER PIPELINE**

**TEST PIT POSITIONS**

**CHAINAGE 1500 TO CHAINAGE 3000**

DEPARTMENT OF WATER AFFAIRS  
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE  
PRIVATE BAG X313  
PRETORIA 0001

SCHEMATA BUILDING  
106 TROOPERS STREET  
PRETORIA  
(012) 332-7500

DESIGNER: T. MAKUZYANA  
DATE: 2018/08/20  
DATE: 2018/08/20

NO.	DATE	REVISION	DESCRIPTION	FOR	BY

REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL GEOTECHNICAL ENGINEER

REGISTERED PROFESSIONAL CIVIL ENGINEER

REGISTERED PROFESSIONAL SURVEYOR

REGISTERED PROFESSIONAL ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL MECHANICAL ENGINEER

REGISTERED PROFESSIONAL CHEMICAL ENGINEER

REGISTERED PROFESSIONAL METALLURGICAL ENGINEER

REGISTERED PROFESSIONAL AERONAUTICAL ENGINEER

REGISTERED PROFESSIONAL AGRICULTURAL ENGINEER

REGISTERED PROFESSIONAL INDUSTRIAL ENGINEER

REGISTERED PROFESSIONAL MARINE ENGINEER

REGISTERED PROFESSIONAL MINING ENGINEER

REGISTERED PROFESSIONAL PETROLEUM ENGINEER

REGISTERED PROFESSIONAL POWER ENGINEER

REGISTERED PROFESSIONAL RAILWAY ENGINEER

REGISTERED PROFESSIONAL ROAD ENGINEER

REGISTERED PROFESSIONAL STRUCTURAL ENGINEER

REGISTERED PROFESSIONAL TOWN PLANNING ENGINEER

REGISTERED PROFESSIONAL WATER ENGINEER

REGISTERED PROFESSIONAL WIND ENGINEER

REGISTERED PROFESSIONAL WOOD ENGINEER

REGISTERED PROFESSIONAL YACHT ENGINEER

FUNCTION	NAME	SIGNATURE	DATE
DESIGNED	T. MAKUZYANA	N/A	N/A
DRAWN	R. TLUCEK	N/A	N/A
CHECKED	R. TLUCEK	N/A	N/A
APPROVED	R. TLUCEK	N/A	N/A
NAME	R. TLUCEK	REG. NO.	PREFOB
SIGNATURE:		DATE:	

021.001-D-G3-102



**LEGEND:**

- BULK WATER PIPELINE: (Red line)
- PROVINCIAL ROADS: (Blue line)
- PRIVATE ROADS: (Green line)
- TEST PIT: (Black square)
- TP P15
- TP P16
- TP P17
- TP P18
- TP P19
- TP P20
- TP P21
- TP P22
- TP P23
- DCP: (Black triangle)
- DCP7

**TEST PIT POSITIONS**  
SCALE: 1:2000

DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA HEAD OFFICE PRIVATE BAG X313 PRETORIA 0001 (012) 332-7500		DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA REGIONAL OFFICE 186 TROMPSBURG STREET PRETORIA 0001 (012) 332-7500		DESIGN: T. MAKUJANA DATE: 12/01/2023 EXTERNAL APPROVAL:		PROVINCE: WESTERN CAPE LOCALITY: No. XXX DISTRICT: DAKENIS/SHANTLAND		SHEET: 6 of 13 REV: 0	
PROJECT NO: 021.001-D-G3-103 DRAWING NO: 021.001-D-G3-103		DRAWING CHECKED: R. TLUCEK DESIGN CHECKED: R. TLUCEK NAME: R. TLUCEK SURNAME:		APPROVAL - CONSULTANT REG. NO. PFE08 DATE:		SHEET: 6 of 13 REV: 0		LIST OF DRAWINGS SHEET: XXX EXPLANATION: XXX REG. NO.: XXX OTHER NO.: XXX	
REVISION NO. DATE DESCRIPTION		FOR: DM		DATE: 12/01/2023		SHEET: 6 of 13 REV: 0		GEOTECHNICAL INVESTIGATION BULK WATER PIPELINE TEST PIT POSITIONS CHAINAGE 3000 TO CHAINAGE 4000	
COPYRIGHT RESERVED		021.001-D-G3-103		DRAFT		DATE: 12/01/2023		PROJECT NO: 021.001-D-G3-103	



**LEGEND:**

- BULK WATER PIPELINE: —
- PROVINCIAL ROADS: —
- PRIVATE ROADS: —
- TEST PIT:
- TP P33:
- DCP:
- DCP7:

X	XXX	XXXXXXX
X	XXX	XXXXXXX
SHEET		REG. No.

**BERG RIVER VOELVEI AUGMENTATION SCHEME (BRVAS)**

**GEOTECHNICAL INVESTIGATION**  
 BULK WATER PIPELINE  
 TEST PIT POSITIONS  
 CHAINAGE 4000 TO CHAINAGE 5500

DISTRICT: DRAKENSTEM/SHANTLAND	KEYCODES:
TENDER/ CONTRACT No. XXX	SHEET
PROVINCE: WESTERN CAPE	REG. No.
LOCALITY No. XXX	7 of 13
DATE: PHL XXX	REV. No.
DATE: PHL XXX	0

DEPARTMENT OF WATER AFFAIRS  
 REPUBLIC OF SOUTH AFRICA

SENIOR BUILDING  
 186 TROOPERS STREET  
 PRETORIA 0001  
 (012) 335-7500

HEAD OFFICE  
 PRIVATE BAG X313  
 PRETORIA 0001

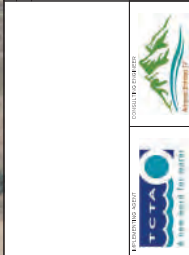
DESIGNER: **DATE:** **DATE:** EXTERNAL APPROVAL:

CREATED BY: **T. MAKUZYANA**

DATE: **DATE:** EXTERNAL APPROVAL:

DATE: **DATE:** EXTERNAL APPROVAL:

NO.	DATE	REVISION DESCRIPTION



DESIGNED: <b>W. MULOHE</b>	SIGNATURE: <b>W. MULOHE</b>
DRAWN: <b>T. MAKUZYANA</b>	SIGNATURE: <b>T. MAKUZYANA</b>
DESIGN CHECKED: <b>R. TLUCEK</b>	SIGNATURE: <b>R. TLUCEK</b>
DRAWING CHECKED: <b>R. TLUCEK</b>	SIGNATURE: <b>R. TLUCEK</b>
NAME: <b>R. TLUCEK</b>	APPROVAL - CONSULTANT
SIGNATURE:	REG. No. PFE08
	DATE:

021.001-D-G3-104

DATE: **DATE:**

DATE: **DATE:**





**LEGEND:**

- BULK WATER PIPELINE
- PROVINCIAL ROADS
- PRIVATE ROADS
- TEST PIT: TP P33
- DOP: JUCP7



<b>REVISION</b>	<b>NO.</b>	<b>DATE</b>	<b>DESCRIPTION</b>	<b>FOR</b>	<b>BY</b>
<b>TEST PIT POSITIONS</b> SCALE: 1:2000					
DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA HEAD OFFICE PRIVATE BAG 313 PRETORIA 0001			SECTION BUILDING 186 TROOPERS STREET PRETORIA (012) 336-7500		
DESIGNER: DATE:			EXTERNAL APPROVAL: DATE:		
DESIGN: T. MAKUZYANA			PROVINCE: WESTERN CAPE		
LOCALITY NO. XXX			DISTRICT: DAKARSTEN/SMARTLAND		
TRUNKY / CONTRACT No. XXX			SHEET		
DATE: P.L.S. XXX			8 of 13		
OTHER No.			OTHER No.		
REV. No.			REV. No.		
0			0		

NAME: R. TLUCZEK SIGNATURE:	APPROVAL - CONSULTANT	REG. NO. P/REG	DATE:	TITLE:	DATE:

DRAWING NUMBER 021.001-D-G3-105	SCALE:	DATE:	SHEET:	TOTAL SHEETS:

DESIGNER:	DATE:	EXTERNAL APPROVAL:	DATE:	PROVINCE: WESTERN CAPE	DISTRICT: DAKARSTEN/SMARTLAND

LOCALITY NO. XXX	TRUNKY / CONTRACT No. XXX	SHEET	TOTAL SHEETS

DATE: P.L.S. XXX	OTHER No.	REV. No.

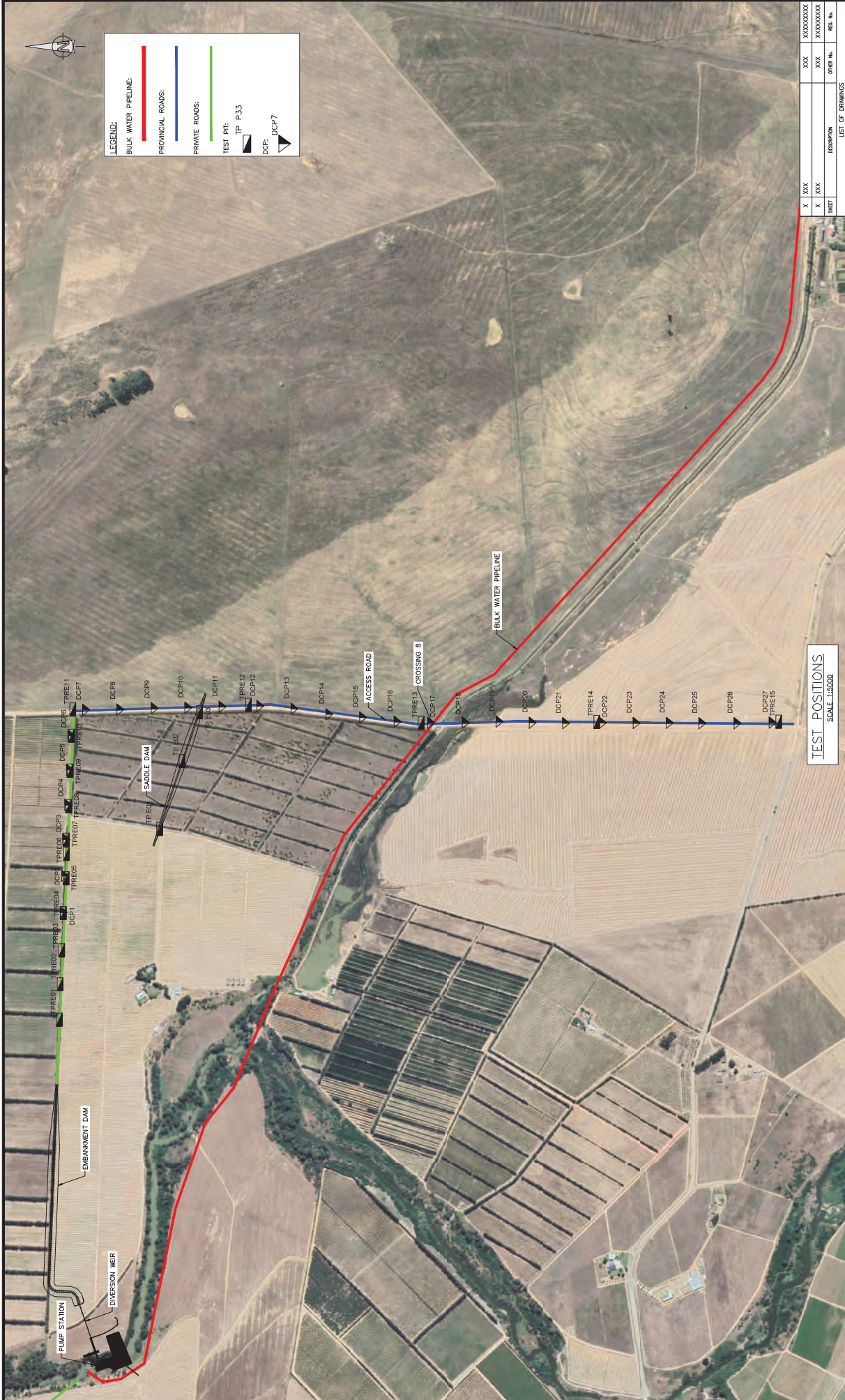


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**LEGEND:**

- BULK WATER PIPELINE: —
- PROVINCIAL ROADS: —
- PRIVATE ROADS: —
- TEST PIT: ▲
- TP P33: ▲
- DCP: ▲



**TEST POSITIONS**  
SCALE: 1:5000

SHEET	DESCRIPTION	OTHER No.	REG. No.
X XXX	XXX	XXX	XXXXXXXXXX
X XXX	XXX	XXX	XXXXXXXXXX

LIST OF DRAWINGS			
NO.	DESCRIPTION	DATE	BY
1	TEST POSITIONS	2021-01-10	R TLUCZEK

**BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS)**

**GEOTECHNICAL INVESTIGATION**  
ACCESS ROAD  
TEST POSITIONS

DEPARTMENT OF WATER AFFAIRS  
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE  
PRIVATE BAG X313  
PRETORIA 0001

DESIGNER: T. MAKUZYANA  
DATE: 2021-01-10

ENGINEER: R. TLUCZEK  
DATE: 2021-01-10

PROJECT NUMBER: / 2021-01-10-001

NO.	DATE	REVISION DESCRIPTION	FOR	BY

REGISTERED PROFESSIONAL ENGINEER

**TLUCZEK**

REGISTERED PROFESSIONAL ENGINEER

**TLUCZEK**

REVISION	NO.	DATE	DESCRIPTION

021.001-C-G3-101



**LEGEND:**

- BULK WATER PIPELINE: —
- PROVINCIAL ROADS: —
- PRIVATE ROADS: —
- TEST PIT: TP P33
- DCP: ▲

SHEET	DESCRIPTION	OTHER No.	REG. No.
X XXX	XXX	XXX	XXXXXXXXXX
X XXX	XXX	XXX	XXXXXXXXXX

LIST OF DRAWINGS			
NO.	DESCRIPTION	DATE	BY
1	TEST POSITIONS	10/01/13	0

**BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS)**

**GEOTECHNICAL INVESTIGATION**

ACCESS ROAD  
TEST POSITIONS

DEPARTMENT OF WATER AFFAIRS  
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE  
PRIVATE BAG 3133  
PRETORIA 0001

SECTION BUILDING  
166 WINDHOLM STREET  
PRETORIA  
(012) 335-7500

DATE: 10/01/13  
DRAWN BY: T. MAKUZYANA

DATE: 10/01/13  
EXTERNAL APPROVAL:

DEVELOPER:   
ENGINEER:   
DATE: 10/01/13  
LOCALITY No. XXX  
PROVINCE: WESTERN CAPE  
DISTRICT: DAKENSBURG/SMARTLAND  
TENDERS/ CONTRACT No. XXX  
SHEET 10 of 13  
SCALE: PLS. XXX

NO.	DATE	REVISION DESCRIPTION

**TEST POSITIONS**  
SCALE: 1:10000

NO.	DATE	REVISION DESCRIPTION

NO.	DATE	REVISION DESCRIPTION

PROJECT NUMBER: 021.001-C-G3-102



**LEGEND:**

- BULK WATER PIPELINE
- PROVINCIAL ROADS
- PRIVATE ROADS
- TEST PIT: TP P.33
- DOP: DCP.7

**TEST POSITIONS**  
SCALE: 1:10000

SHEET	DESCRIPTION	OTHER No.	REG. No.
X XXX	XXX	XXX	XXXXXXXXXX
X XXX	XXX	XXX	XXXXXXXXXX

DEPARTMENT OF WATER AFFAIRS REPUBLIC OF SOUTH AFRICA HEAD OFFICE PRIVATE BAG X313 PRETORIA 0001 (012) 332-7500		BERG RIVER VOËLVELEI AUGMENTATION SCHEME (BRVAS) GEOTECHNICAL INVESTIGATION ACCESS ROAD TEST POSITIONS	
DESIGNER: DATE: 2020/08/11 DRAWN BY: T. MOKOTYANA	DATE: 2020/08/11 EXTERNAL APPROVAL:	PROVINCE: WESTERN CAPE LOCALITY: No. XXX TRUNKY / CORNER: No. XXX DATE: 11 of 13 SHEET: 11 of 13	OTHER: 00 REV: 0
REVISION NO. DATE DESCRIPTION		FOR: DIM	
COPYRIGHT RESERVED		021.001-C-G3-103	



**LEGEND:**

- BULK WATER PIPELINE: —
- PROVINCIAL ROADS: —
- PRIVATE ROADS: —
- TEST PIT: TP P53
- DCP: DCP7

**TEST POSITIONS**  
SCALE: 1:50000

SHEET	X XXX	XXX	XXXXXXX
DESCRIPTION	X XXX	XXX	XXXXXXX
OTHER No.		OTHER No.	REG. No.

<b>BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS)</b>			
<b>GEOTECHNICAL INVESTIGATION</b>			
ACCESS ROAD TEST POSITIONS			
PROVINCE	WESTERN CAPE	DISTRICT	DAKENIS/SHANTLAND
LOCALITY	No. XXX	TENDER / CONTRACT	No. XXX
DATE	P.L.E. XXX	SHEET	12 of 13
DATE	P.L.E. XXX	REV.	0

DEPARTMENT OF WATER AFFAIRS  
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE  
PRIVATE BAG X313  
PRETORIA 0001

DESIGNER: T. MARUYANA  
DATE: 15/07/2010

EXTERNAL APPROVAL: [Signature]  
DATE: 15/07/2010

SCHEMATIC BUILDING  
166 TROMPSBURG STREET  
PRETORIA 0001  
(012) 338-7500

DATE: P.L.E. XXX

NO.	DATE	REVISION	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER

DESIGNER	T. MARUYANA	SIGNATURE	N/A
CHECKED	R. TLUCEK	DATE	N/A
APPROVAL - CONSULTANT	[Signature]	DATE	N/A

DRAWING NUMBER		021.001-C-G3-104
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**LEGEND:**  
 BULK WATER PIPELINE: [Red line symbol]  
 PROVINCIAL ROADS: [Blue line symbol]  
 PRIVATE ROADS: [Green line symbol]  
 TEST PIT: [Symbol]  
 TP: P.33 [Symbol]  
 DCP: [Symbol]  
 DCP7 [Symbol]

**TEST POSITIONS**  
 SCALE: 1:10000

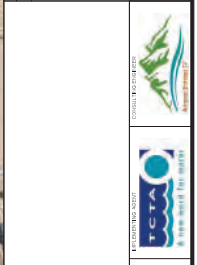
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X	XXX	XXX	XXXXXXXXXX
SHEET		DESCRIPTION	REG. No.

LIST OF DRAWINGS		OTHER No.	OTHER No.
REG. No.	REV.	REV.	REV.
1	3 of 13	0	0

**BERG RIVER VOËLVEI AUGMENTATION SCHEME (BRVAS)**  
**GEOTECHNICAL INVESTIGATION**  
**ACCESS ROAD**  
**TEST POSITIONS**

**DEPARTMENT OF WATER AFFAIRS**  
 REPUBLIC OF SOUTH AFRICA  
 HEAD OFFICE  
 PRIVATE BAG X313  
 PRETORIA 0001  
 DESIGNER: [Name]  
 DATE: [Date]  
 DATE: [Date]

REVISION	DATE	DESCRIPTION



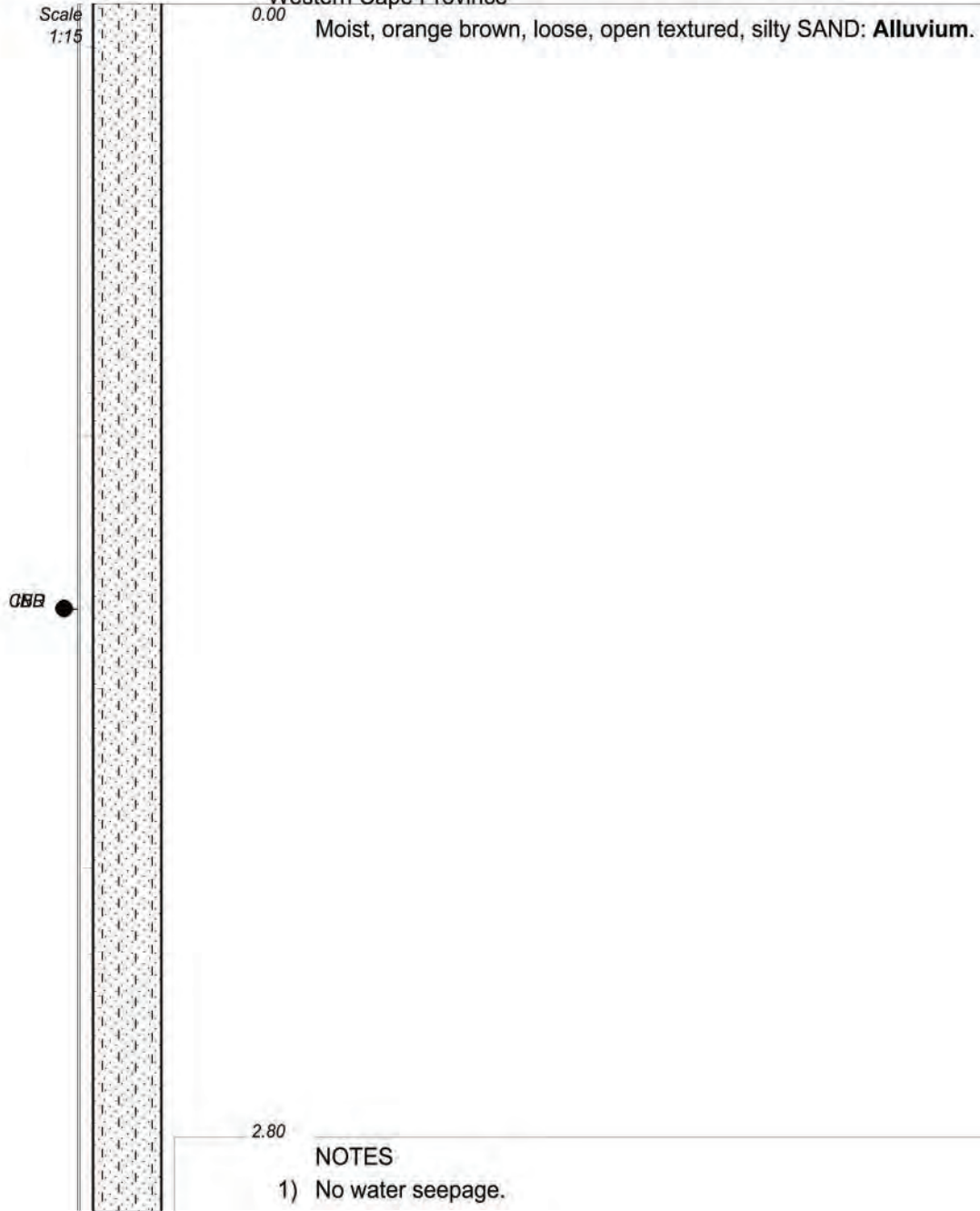
DESIGNER:	DATE:	DATE:

LOCATION:	NAME:	SIGNATURE:
DESIGNED:	T. MAKUZYANA	N/A
DRAWN:	R. TLUCZEK	N/A
CHECKED:	R. TLUCZEK	N/A
APPROVAL - CONSULTANT:		
NAME:	R. TLUCZEK	REG. No. PF609
SIGNATURE:		DATE:

021.001-C-G3-105

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# WEIR TESTPIT PROFILES



**NOTES**

- 1) No water seepage.
- 2) Major sidewall collapse from surface.
- 3) IND sample taken at 0.00--2.80m.
- 4) CBR sample taken at 0.00--2.80m.
- 5) No refusal.

CONTRACTOR : Mukona Consulting Engineers INCLINATION : Vertical

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:24

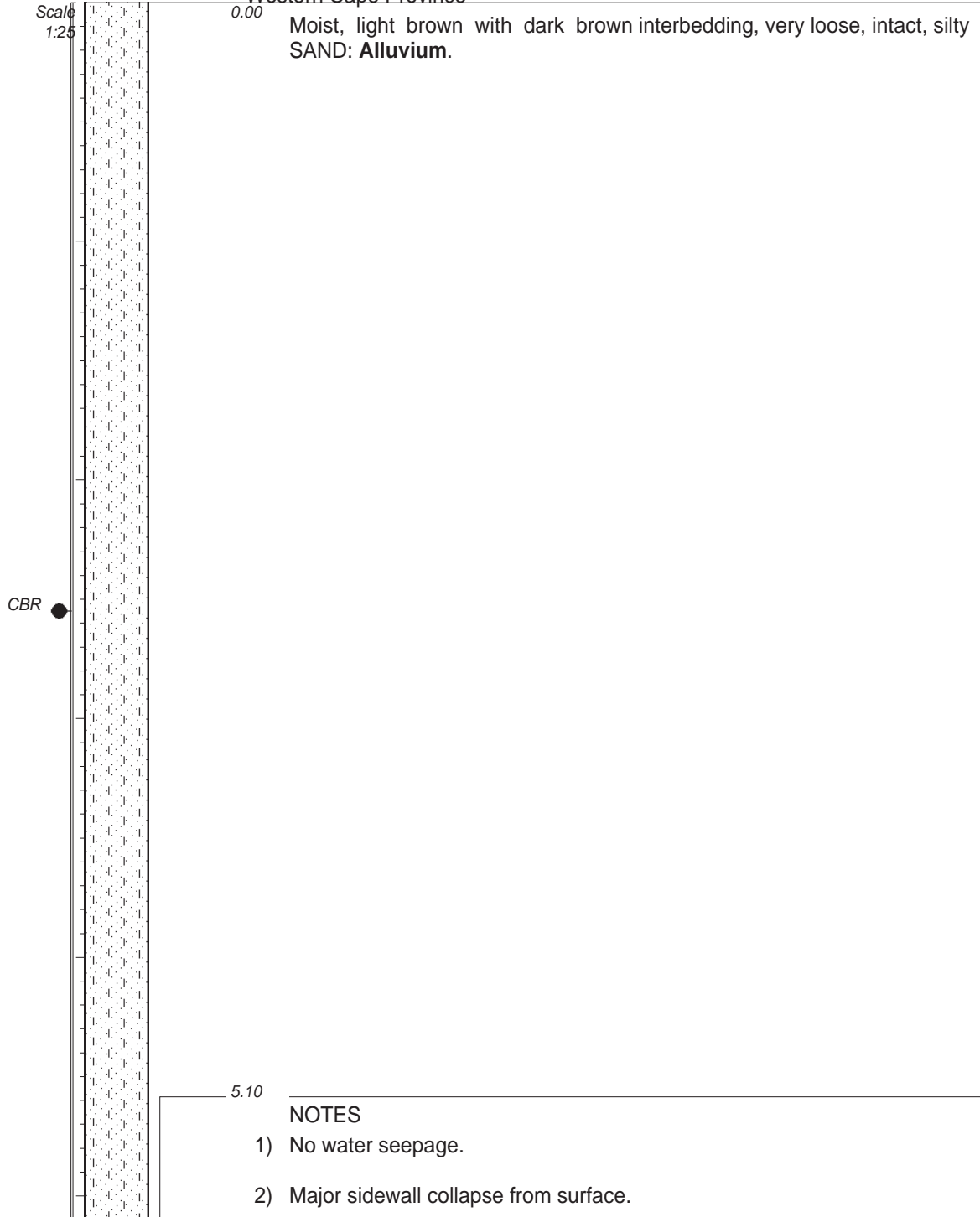
TEXT : ..1614BRVASEMBANKEMENT.TXT

ELEVATION :

X-COORD : 33° 19' 40.44"S

Y-COORD : 18° 58' 49.97"E





**NOTES**

- 1) No water seepage.
- 2) Major sidewall collapse from surface.
- 3) No refusal but test pit terminated due to collapse.
- 4) CBR sample taken 0.00--5.10m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION : Vertical

MACHINE : Hitachi 220EX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

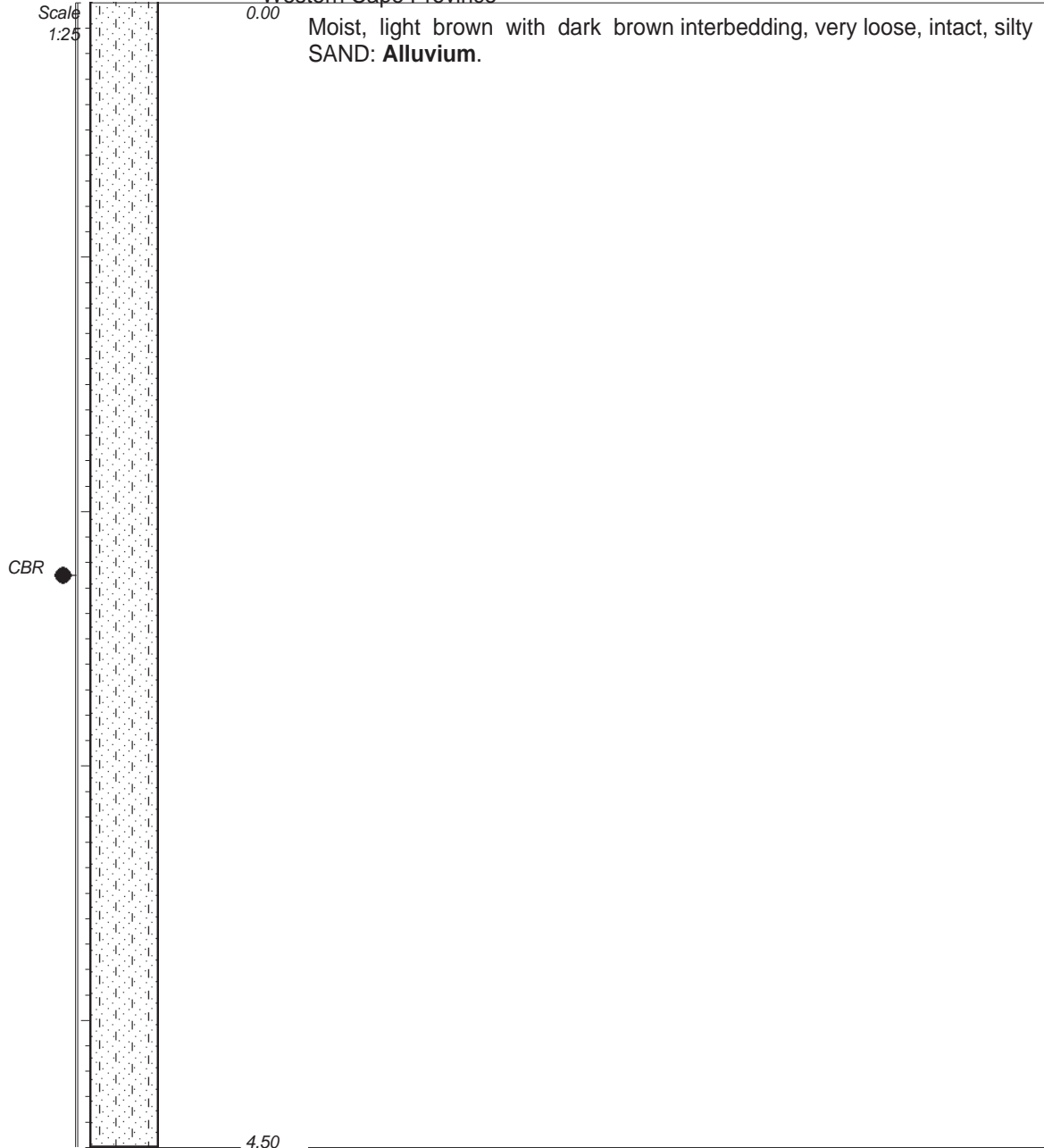
DATE : 22/11/2021 08:23

TEXT : ..OLDER\MK21614BRVASEE.TXT

ELEVATION :

X-COORD : 33° 19'40.44"S

Y-COORD : 18° 58'49.97"E



**NOTES**

- 1) No water seepage.
- 2) Major sidewall collapse from surface.
- 3) No refusal but test pit terminated due to collapse.
- 4) CBR sample taken 0.00--4.50m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : Hitachi 220EX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:23

TEXT : ..OLDER\MK21614BRVASEE.TXT

ELEVATION :

X-COORD : 33' 19'40.05"S

Y-COORD : 18' 58'51.45"E

Scale  
1:15



0.00

Moist, orange brown, loose, open textured, silty SAND: **Alluvium.**

2.20

**NOTES**

- 1) No water seepage.
- 2) Major sidewall collapse from surface.
- 3) No refusal, test pit terminated due to collapse.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:24

TEXT : ..1614BRVASEMBANKEMENT.TXT

ELEVATION :

X-COORD : 33° 19' 42.49"S

Y-COORD : 18° 58' 52.93"E

HOLE No: TPD03

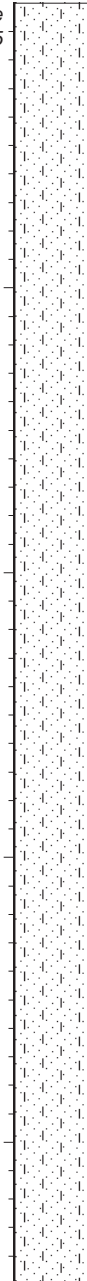


**Trans Caledon Tunnel Authority**  
Geotechnical Investigation  
Berg River Voelvlei Augmentation Scheme  
Riebeek Kasteel  
Western Cape Province

**HOLE No: TPDE03**  
*Sheet 1 of 1*

**JOB NUMBER: MK-21-614**

Scale  
1:25



0.00

Moist, light brown with dark brown interbedding, very loose, intact, silty  
SAND: **Alluvium**.

4.50

**NOTES**

- 1) No water seepage.
- 2) Major sidewall collapse from surface.
- 3) No refusal but test pit terminated due to collapse.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : Hitachi 220EX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:23

TEXT : ..OLDER\MK21614BRVASEE.TXT

ELEVATION :

X-COORD : 33° 19'42.49"S

Y-COORD : 18° 58'52.93"E

**HOLE No: TPDE03**

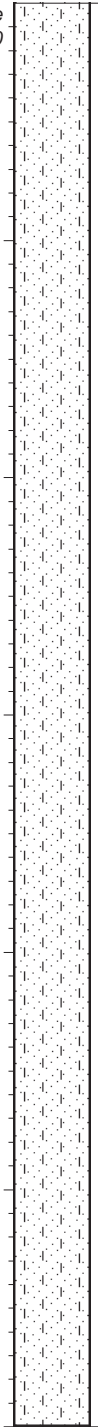


**Trans Caledon Tunnel Authority**  
Geotechnical Investigation  
Berg River Voelvlei Augmentation Scheme  
Riebeeck Kasteel  
Western Cape Province

**HOLE No: TPDE04A**  
*Sheet 1 of 1*

**JOB NUMBER: MK-21-614**

Scale  
1:30



0.00

Slightly moist becoming moist with depth, orange brown, very loose, intact, silty SAND: **Alluvium**.

6.00

**NOTES**

- 1) No water seepage.
- 2) Major sidewall collapse from surface.
- 3) No refusal but test pit terminated due to collapse.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : Hitachi 220EX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:23

TEXT : ..OLDER\MK21614BRVASEE.TXT

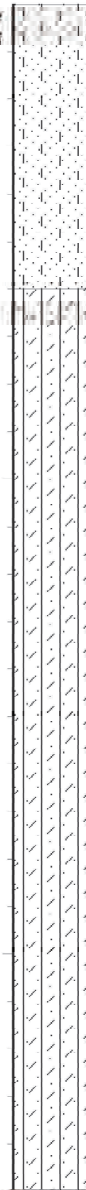
ELEVATION :

X-COORD : 33° 19'39.35"S

Y-COORD : 18° 58'53.35"E

**HOLE No: TPDE04A**

Scale  
1:15



0.00 Moist, light beige brown, loose, intact, silty SAND: **Alluvium.**

0.60 Moist, red brown, soft, intact, clayey sandy SILT: **Residual.**

2.50

**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse
- 3) No refusal, test pit terminated due to space.

CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

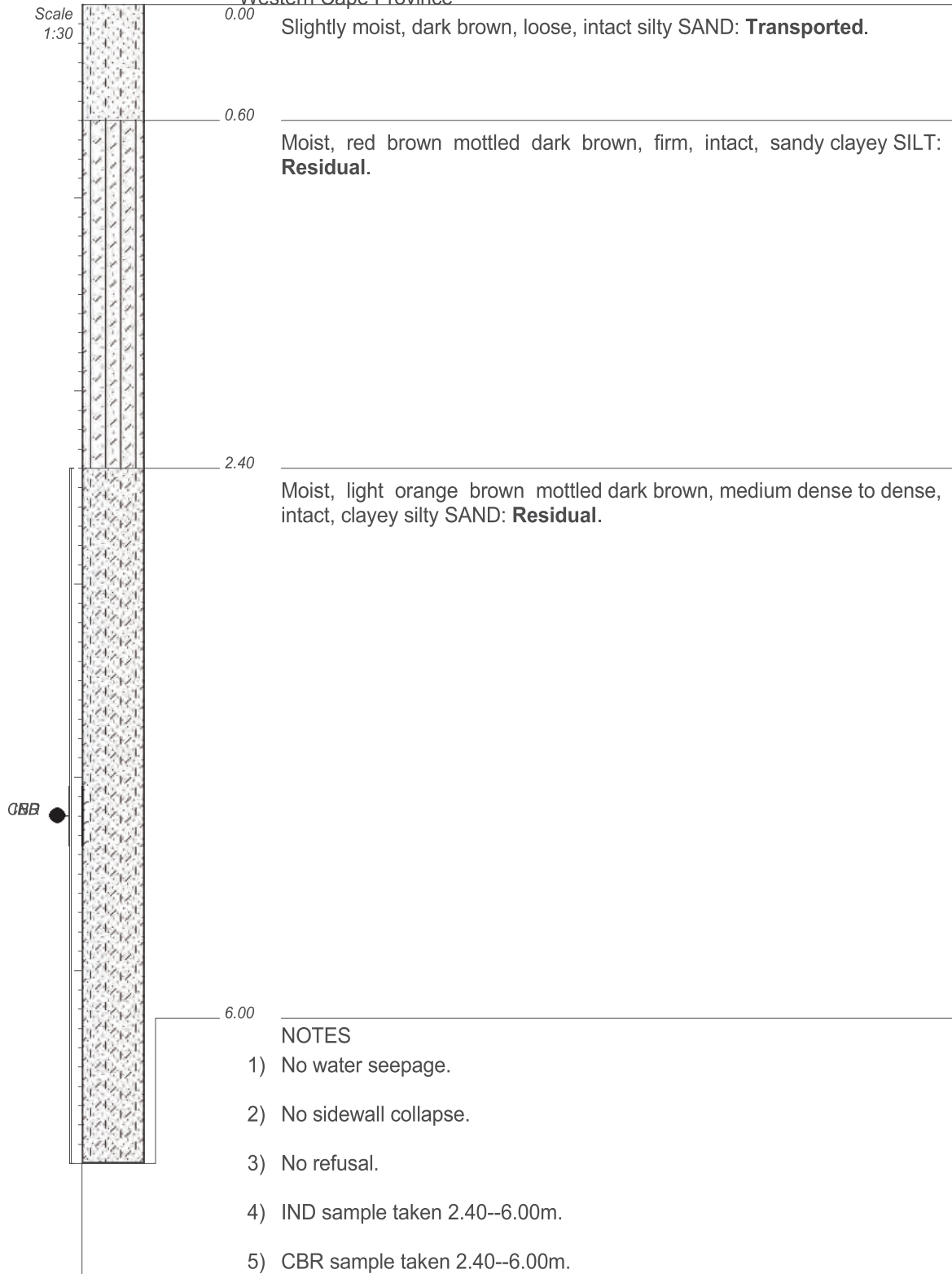
TEXT: ..1614BRVASEMBANKEMENT.TXT

ELEVATION:

X-COORD: 33° 19' 38.99" S

Y-COORD: 18° 58' 55.12" E

HOLE No: TPD04



CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : Hitachi 220EX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:23

TEXT : ..OLDERMK21614BRVASEE.TXT

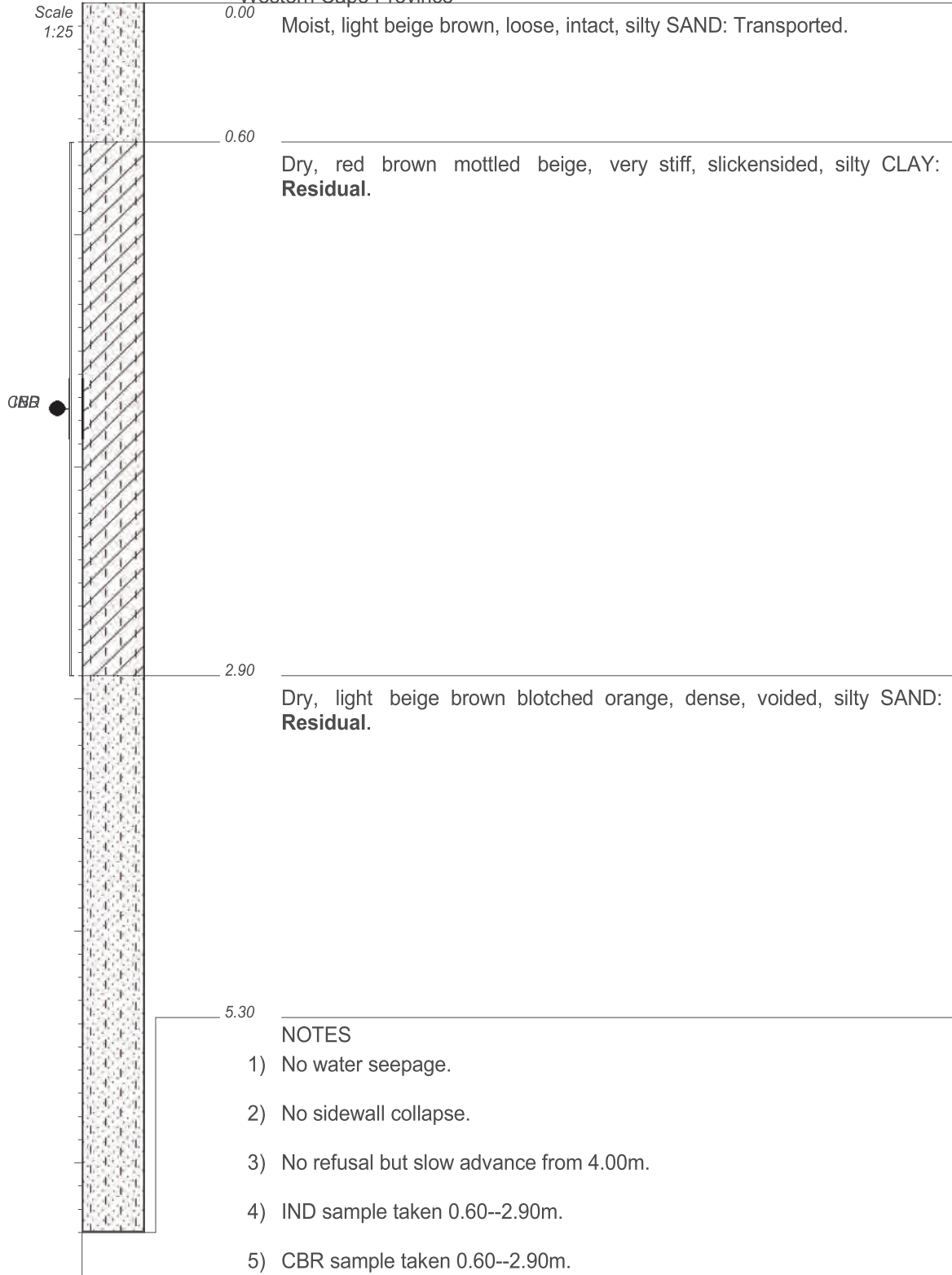
ELEVATION :

X-COORD : 33' 19'36.20"S

Y-COORD : 18' 58'55.48"E

# EARTH EMBANKMENT DAM TESTPIT PROFILES





CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : Hitachi 220EX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

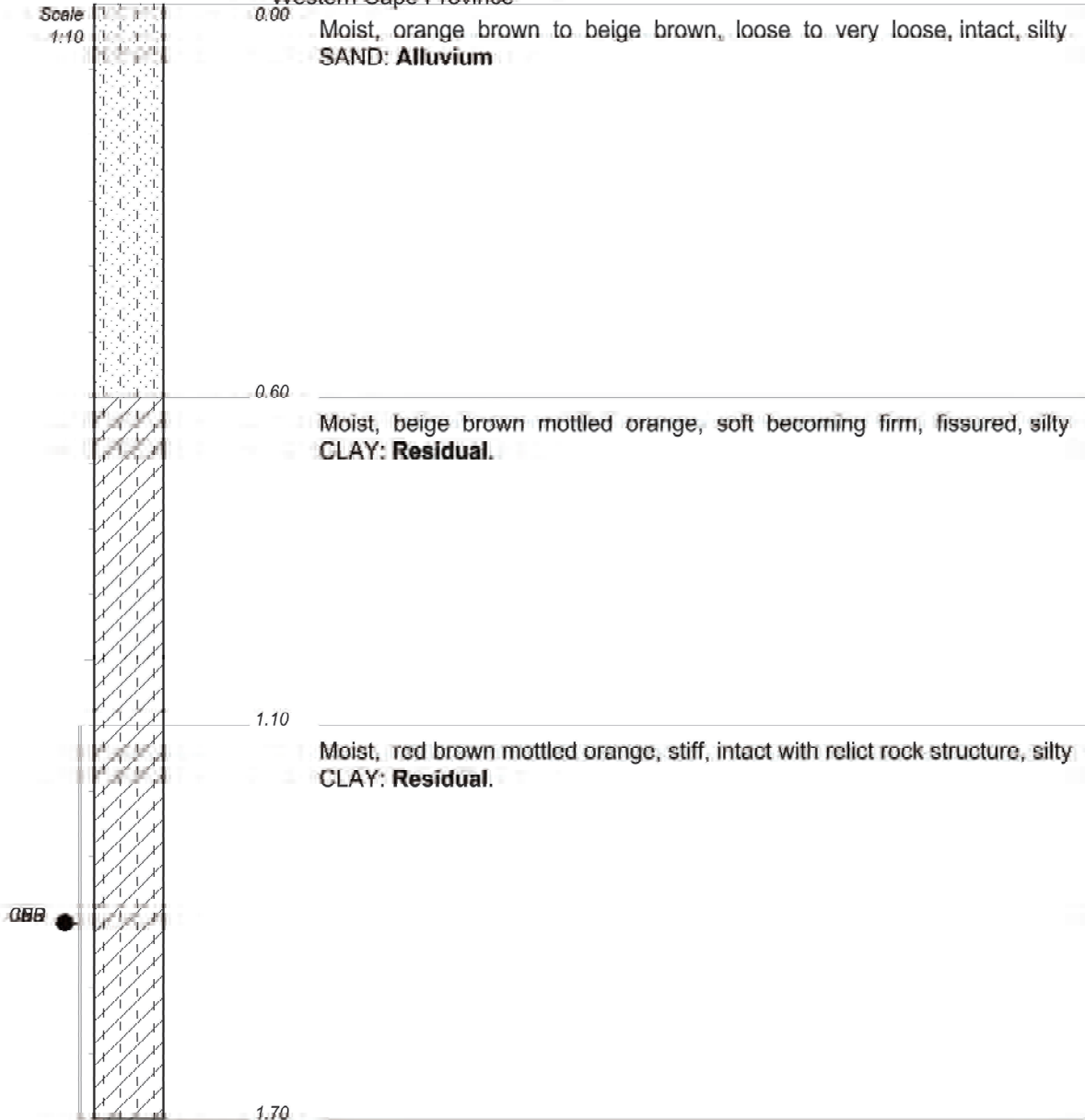
DATE : 22/11/2021 08:23

TEXT : ..OLDERMK21614BRVASEE.TXT

ELEVATION :

X-COORD : 33' 19'39.08"S

Y-COORD : 18' 58'54.83"E



NOTES

- 1) No water seepage.
- 2) No sidewall collapse
- 3) IND sample taken at 1.10–1.70m.
- 4) CBR sample taken at 1.10–1.70m.
- 5) No refusal but slow advance from 1.40m.

CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

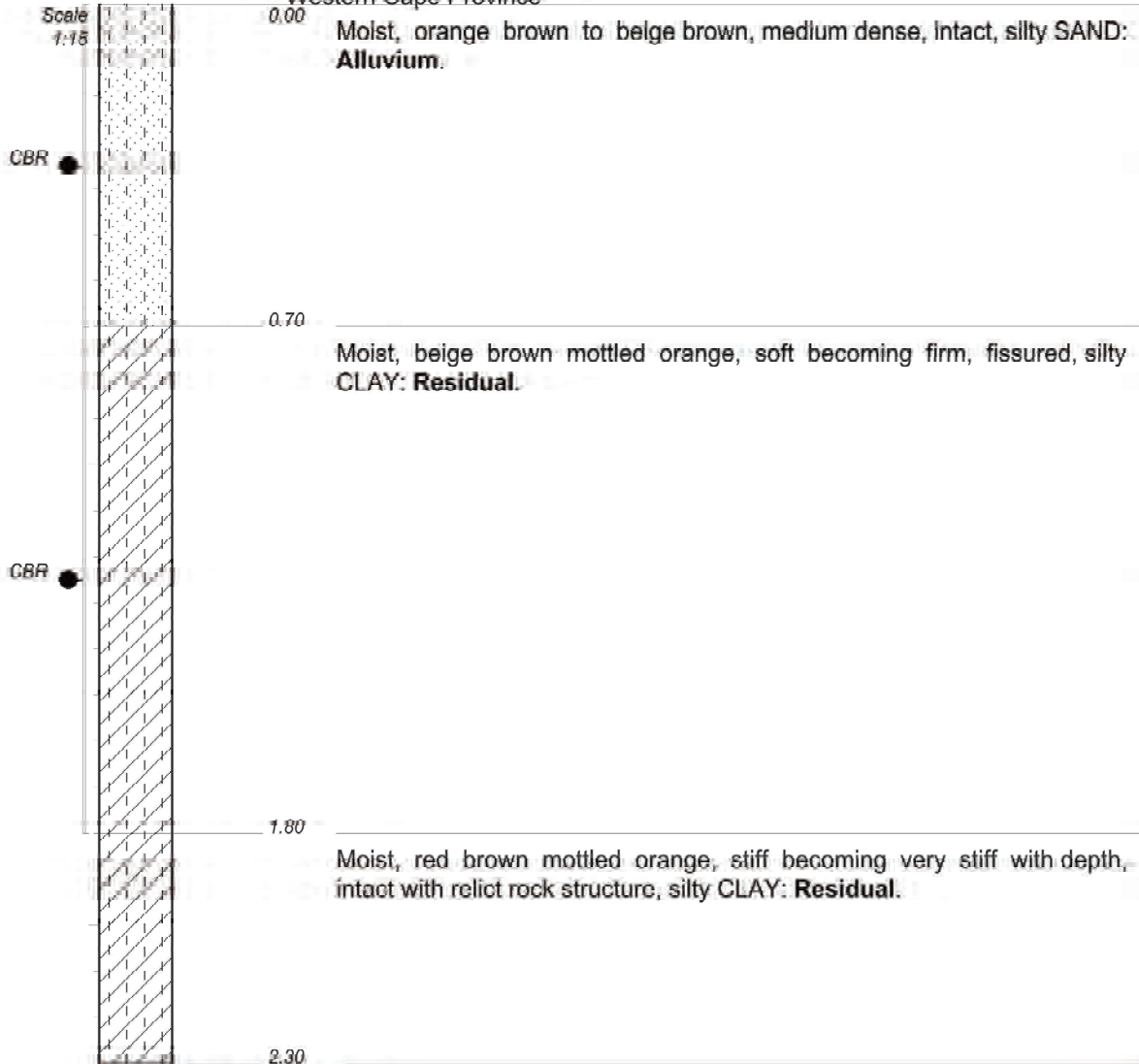
TEXT: ..1614BRVASEMBANKEMENT.TXT

ELEVATION:

X-COORD: 33° 19' 36.11" S

Y-COORD: 18° 58' 55.24" E

HOLE No: TPD05



NOTES

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) CBR sample taken at 0.00–0.70m.
- 4) CBR sample taken at 0.70–1.80m.
- 5) No refusal but slow advance from 1.80m.

CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

TEXT: ..1614BRVASEMBANKEMENT.TXT

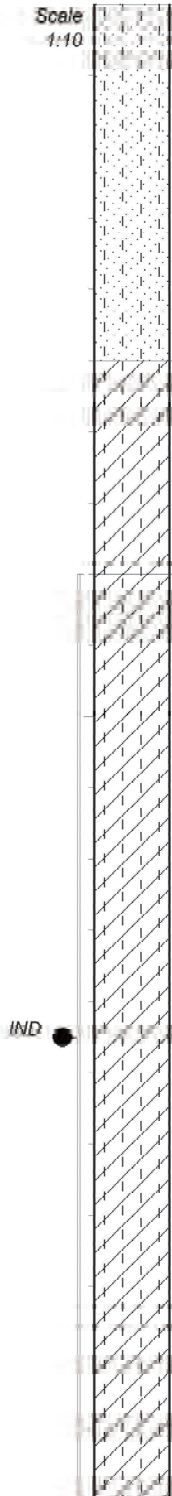
ELEVATION:

X-COORD: 33° 19' 36.26" S

Y-COORD: 18° 58' 58.96" E

HOLE No: TPD06

Scale  
1:10



0.00 Moist, orange brown to beige brown, medium dense, intact, silty SAND:  
**Alluvium.**

0.50 Moist, beige brown mottled orange, soft becoming firm, fissured, silty  
CLAY: **Residual.**

0.80 slightly moist, orange brown mottled orange, stiff, intact with relict rock  
structure, silty CLAY: **Residual.**

IND ●

2.10

**NOTES**

- 1) No water seepage.
- 2) Sidewall collapse from surface.
- 3) IND sample taken at 0.80–2.10m.
- 4) No refusal but slow advance from 1.40m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:24

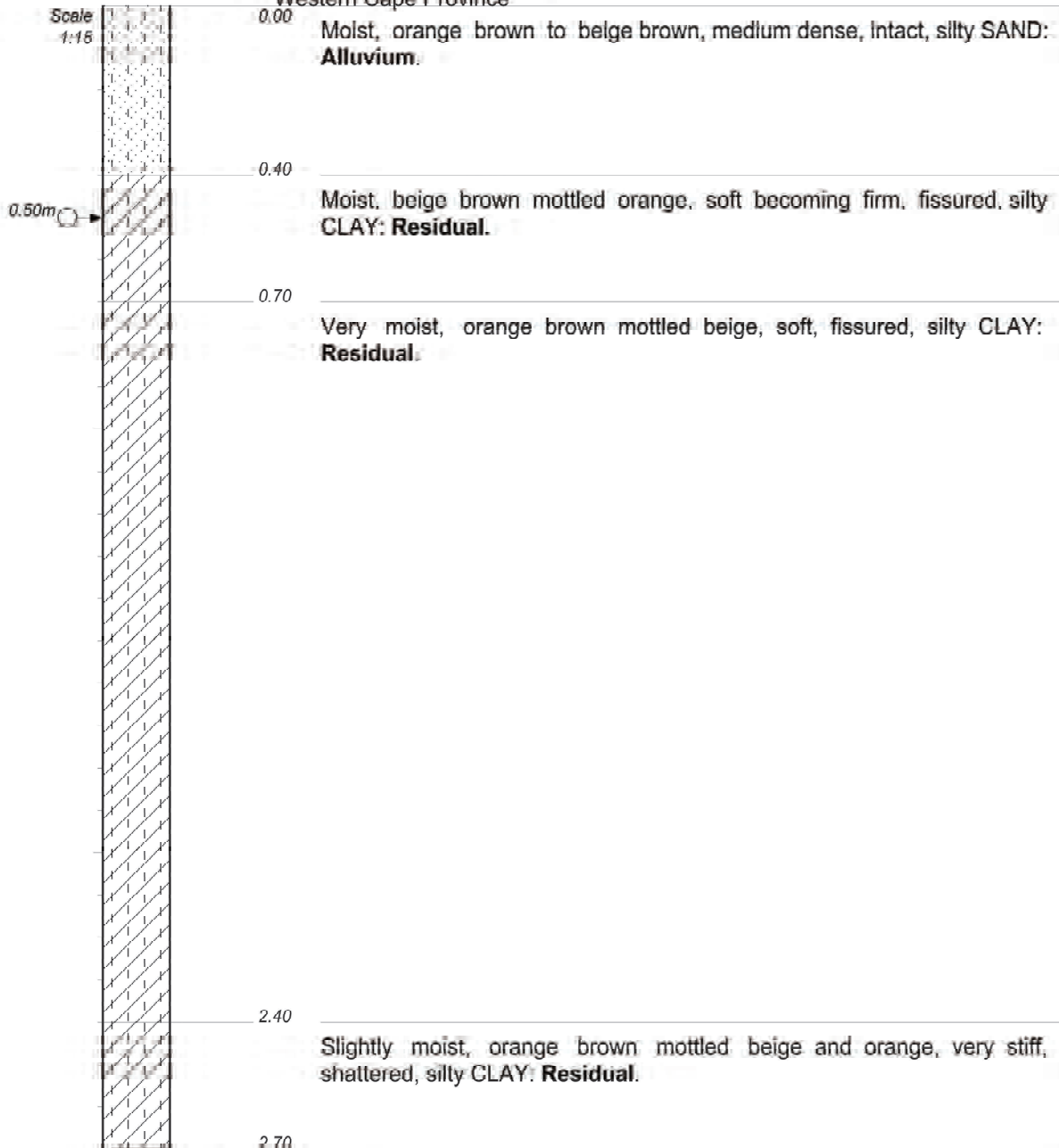
TEXT : ..1614BRVASEMBANKEMENT.TXT

ELEVATION :

X-COORD : 33° 19' 36.32" S

Y-COORD : 18° 59' 02.79" E

HOLE No: TPD07



**NOTES**

- 1) Groundwater seepage from 0.50m.
- 2) Sidewall collapse from 0.50m.
- 3) No refusal but slow advance from 2.40m.

CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DOB: Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

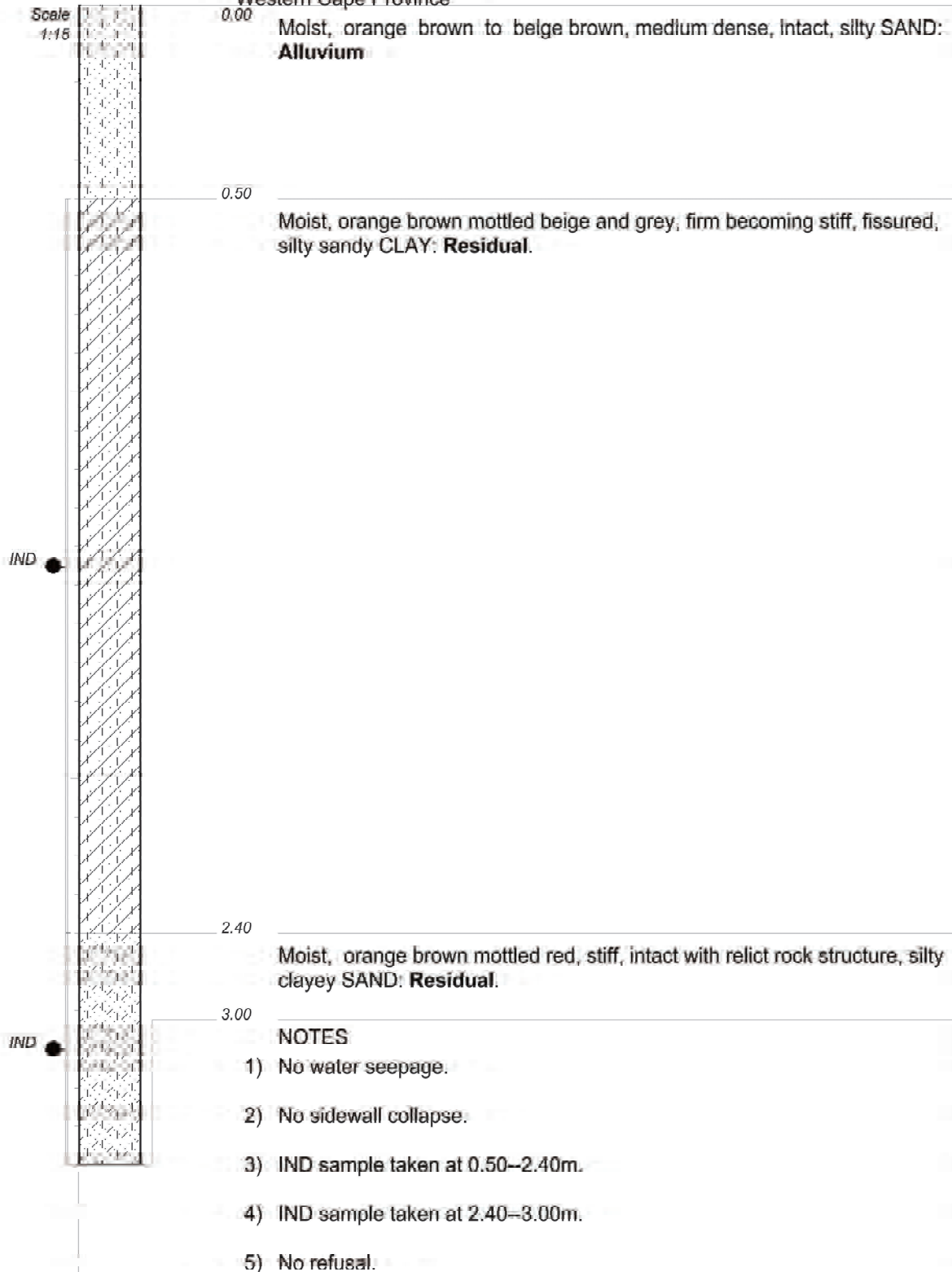
TEXT: ..1614BRVASEMBANKEMENT.TXT

ELEVATION:

X-COORD: 33° 19' 36.50" S

Y-COORD: 18° 59' 06.59" E

HOLE No: TPD08



CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

TEXT: ..1614BRVASEMBANKEMENT.TXT

ELEVATION:

X-COORD: 33° 19' 36.56"S

Y-COORD: 18° 59' 10.48"E

HOLE No: TPD09

Scale  
1:15



0.00 Moist, orange brown to beige brown, medium dense, intact, silty SAND:  
**Alluvium**

0.30 Moist, orange brown mottled grey and beige, firm, fissured, silty sandy  
**CLAY: Residual shale.**

1.30 Light beige brown mottled orange and beige, completely weathered, fine  
grained, highly fractured, very soft rock with interbedded residual clay,  
**SHALE.**

2.10 Light beige brown mottled orange, highly weathered, fine grained, highly  
fractured, very soft rock becoming soft rock with depth, **SHALE.**

2.70

**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) Refusal at 2.70m.

CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

TEXT: ..1614BRVASEMBANKEMENT.TXT

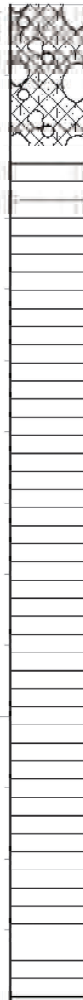
ELEVATION:

X-COORD: 33° 19' 36.70" S

Y-COORD: 18° 59' 14.59" E

HOLE No: TPD10

Scale  
1:10



0.00

Slightly moist, grey brown, loose, intact, silty gravelly SAND with cobbles of mixed origin: **Fill**.

0.20

Light grey brown mottled orange on joints, highly weathered, fine grained, highly fractured, very soft rock becoming soft rock with depth, **SHALE**.

1.40

**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) Refusal at 1.40m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DIAM :

DRILLED BY : Ronald

DATE :

PROFILED BY : K Naidoo

DATE : 16/09/21-30/09/21

TYPE SET BY : KN

DATE : 22/11/2021 08:24

SETUP FILE : STANDARD.SET

TEXT : ..1614BRVASEMBANKEMENT.TXT

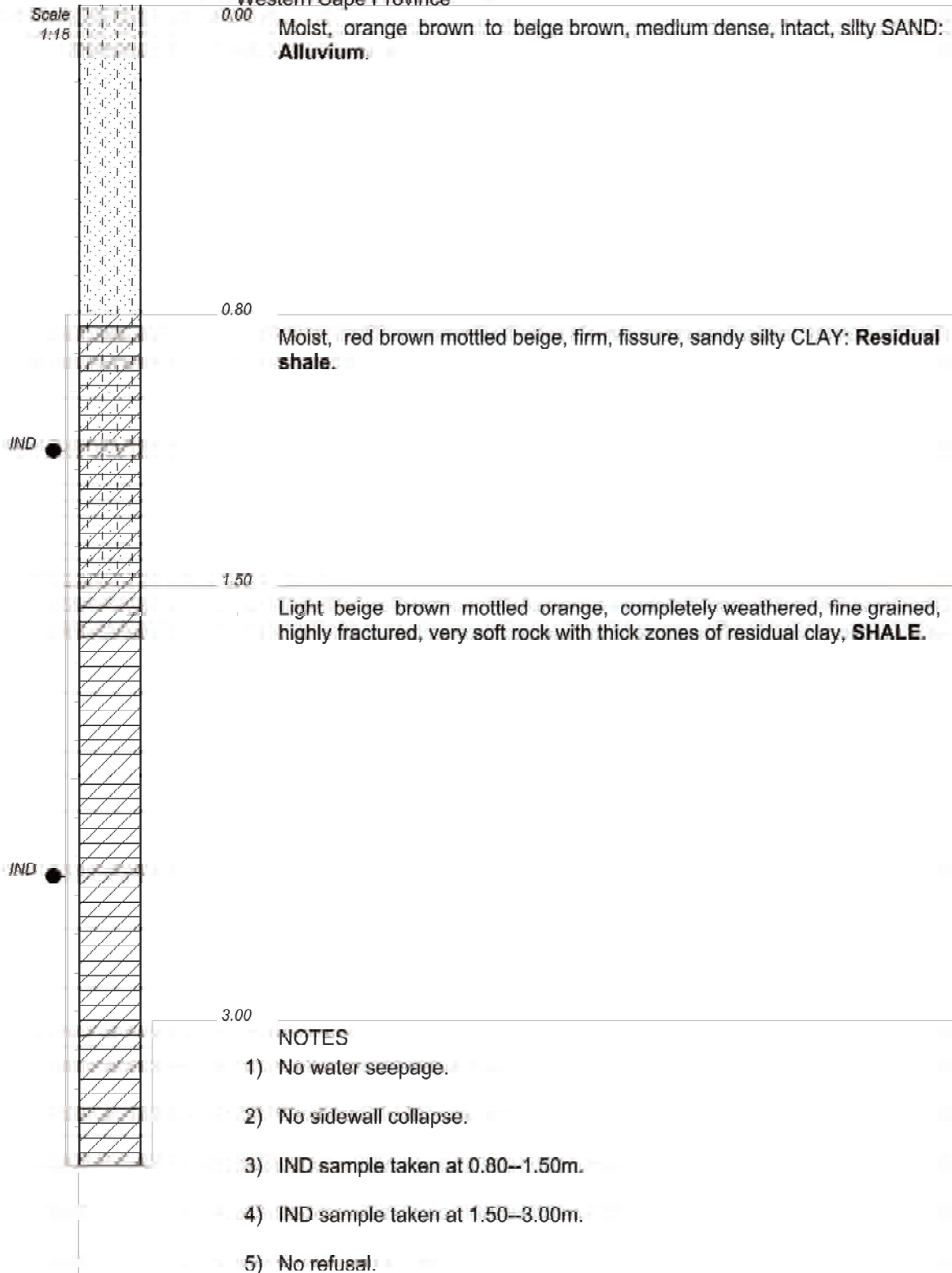
ELEVATION :

X-COORD : 33° 19' 36.90" S

Y-COORD : 18° 59' 17.76" E

HOLE No: TPD11





CONTRACTOR: Mukona Consulting Engineers INCLINATION:

MACHINE: JCB 3 CX

DRILLED BY: Ronald

PROFILED BY: K Naidoo

TYPE SET BY: KN

SETUP FILE: STANDARD.SET

DUBE Mukona Consulting Engineers (Pty) Ltd

DIAM:

DATE:

DATE: 16/09/21-30/09/21

DATE: 22/11/2021 08:24

TEXT: ..1614BRVASEMBANKEMENT.TXT

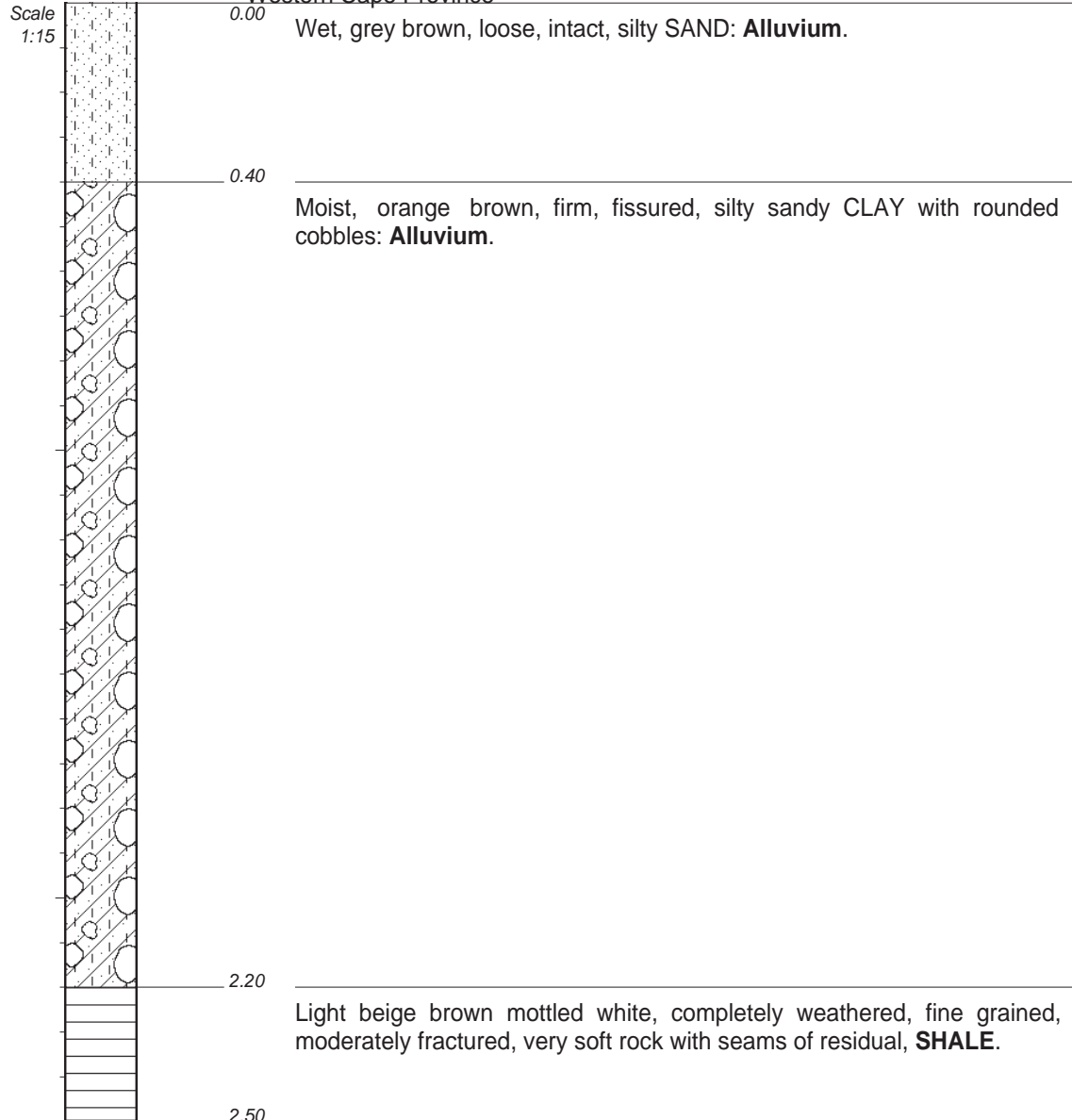
ELEVATION:

X-COORD: 33° 19' 36.99" S

Y-COORD: 18° 59' 22.81" E

HOLE No: TPD12

# SADDLE DAM TESTPIT PROFILES



**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) Refusal at 2.50m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION : Vertical

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:25

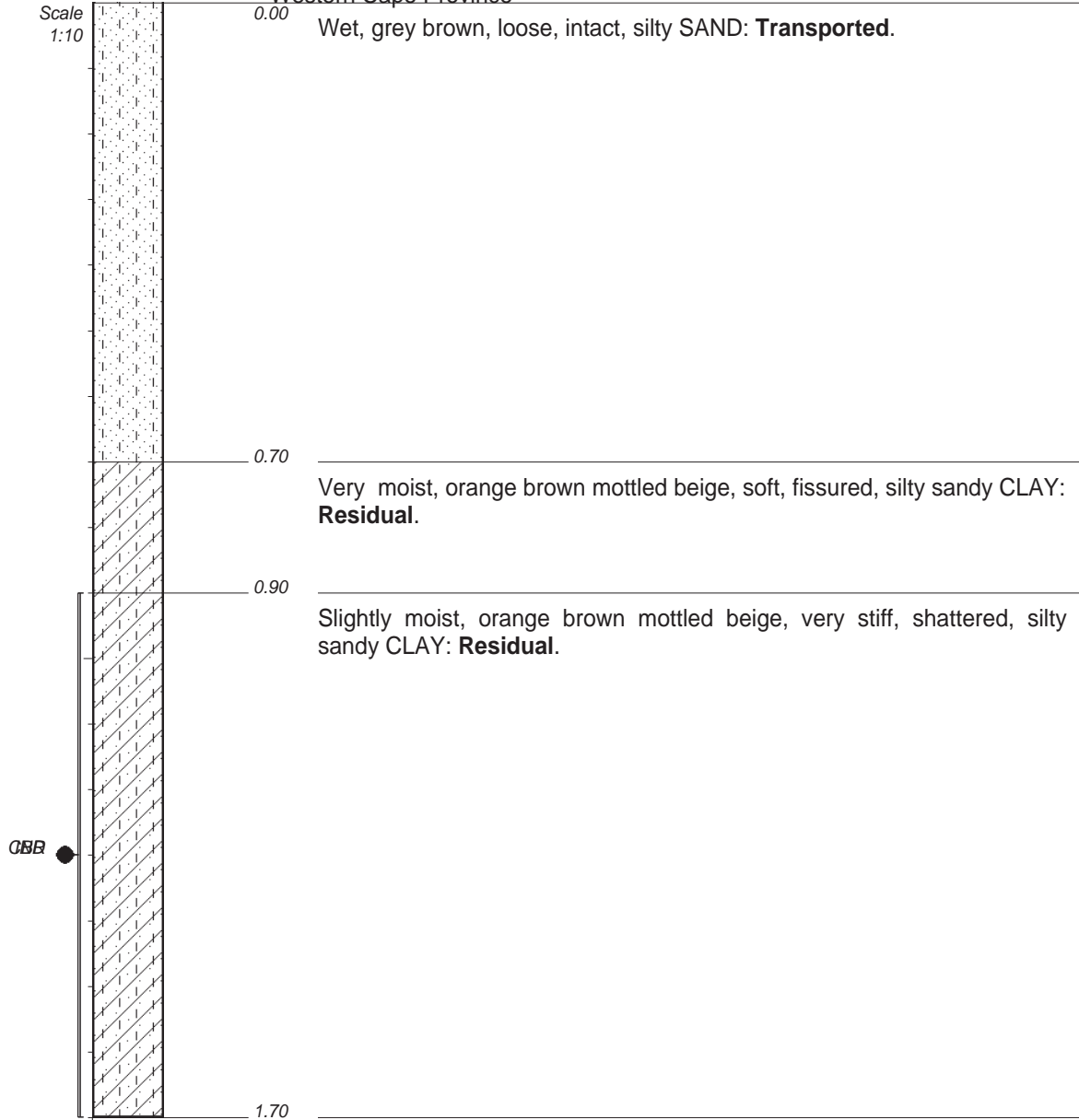
TEXT : ..OLDER\MK21614BRVASSM.TXT

ELEVATION :

X-COORD :

Y-COORD :

**HOLE No: TPE01**



**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) Very slow advance from 1.40m.
- 4) IND sample taken 0.90--1.70m.
- 5) CBR sample taken 0.90--1.70m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:25

TEXT : ..OLDERMK21614BRVASSM.TXT

ELEVATION :

X-COORD :

Y-COORD :

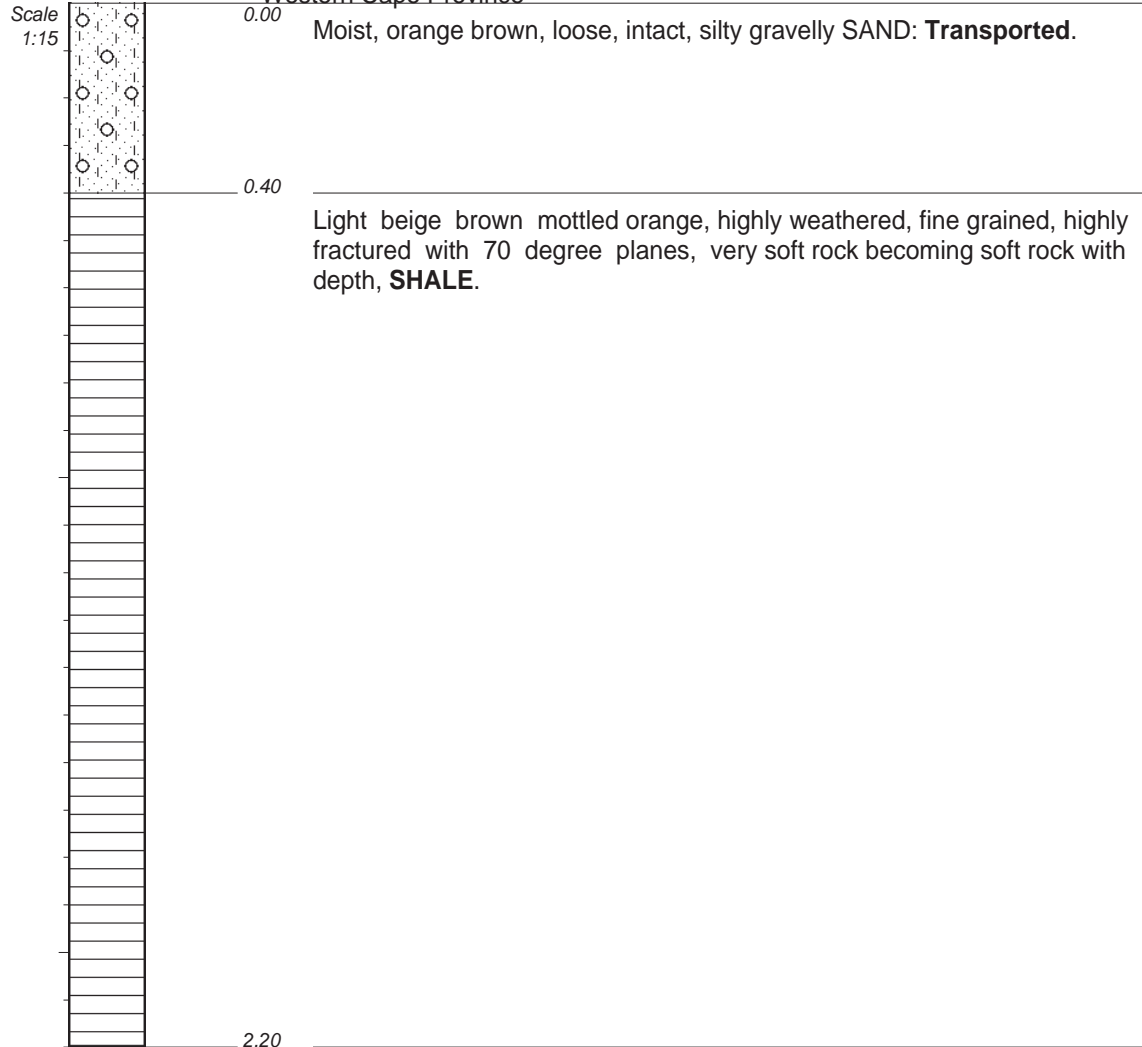
**HOLE No: TPE02**



**Trans Caledon Tunnel Authority**  
Geotechnical Investigation  
Berg River Voelvlei Augmentation Scheme  
Riebeeck Kasteel  
Western Cape Province

**HOLE No: TPE03**  
*Sheet 1 of 1*

**JOB NUMBER: MK-21-614**



**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) Refusal at 2.20m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DIAM :

DRILLED BY : Ronald

DATE :

PROFILED BY : K Naidoo

DATE : 16/09/21-30/09/21

TYPE SET BY : KN

DATE : 22/11/2021 08:25

SETUP FILE : STANDARD.SET

TEXT : ..OLDERMK21614BRVASSM.TXT

ELEVATION :

X-COORD :

Y-COORD :

**HOLE No: TPE03**

# PIPELINE TESTPIT PROFILES

Scale  
1:10



0.00 Moist, light brown, medium dense, intact, silty SAND: **Alluvium.**

0.40 Moist, orange brown mottled red, ferruginised, dense, intact, silty SAND: **Residual.**

1.40 Light beige brown, highly weathered, fine grained, highly fractured, soft rock, **SHALE.**

1.80 **NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) No Refusal.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 06/12/2021-09/12/2021

DATE : 13/01/2022 14:06

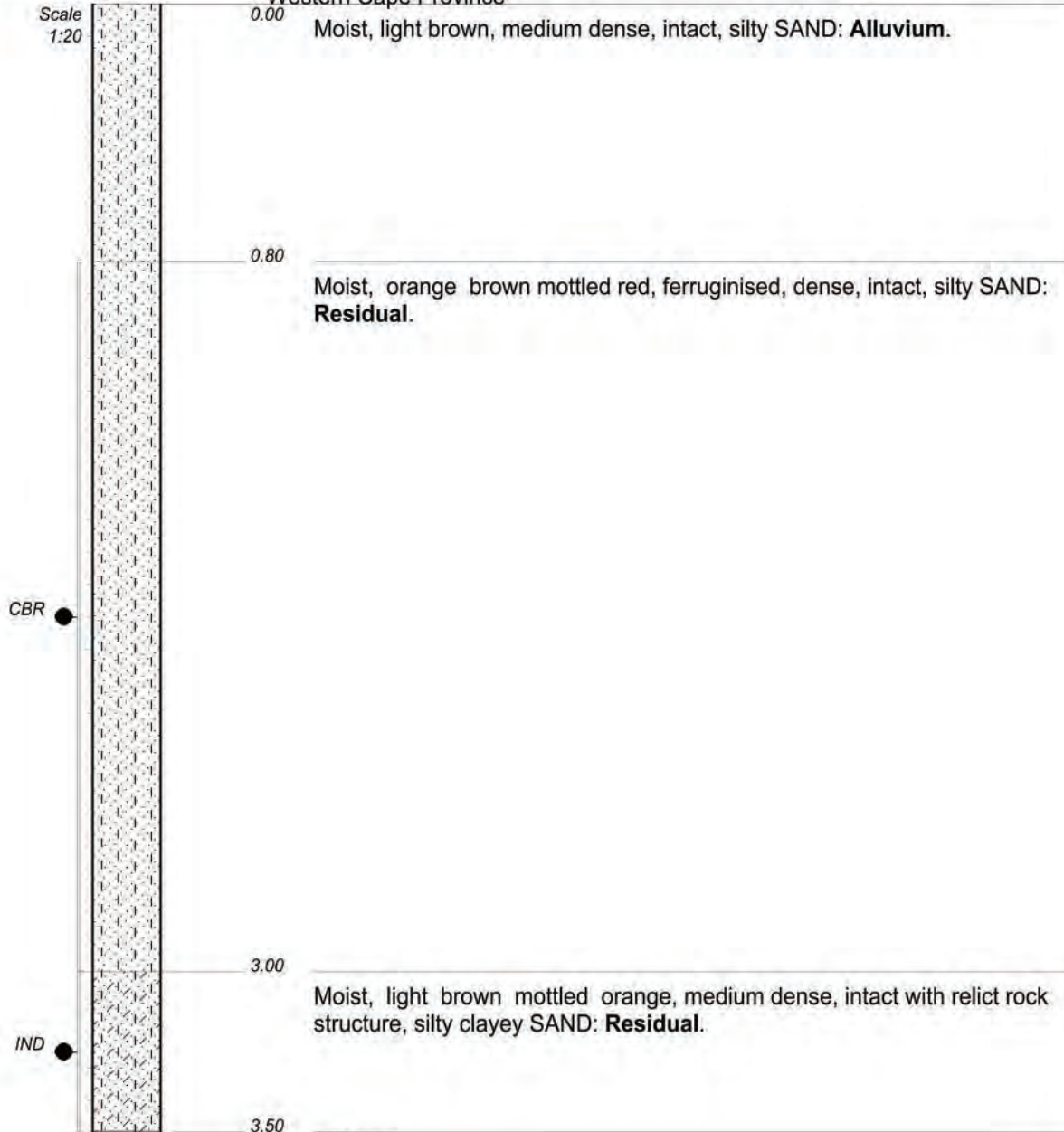
TEXT : ..VASTESTPITPIPELINE2.TXT

ELEVATION :

X-COORD : 33° 19' 41.53"S

Y-COORD : 18° 58' 46.64"E

HOLE No: TPP01



**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) CBR sample taken at 0.80--3.00m.
- 4) IND sample taken at 3.00--3.50m.
- 5) No Refusal.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 06/12/2021-09/12/2021

DATE : 13/01/2022 14:06

TEXT : ..VASTESTPITPIPELINE2.TXT

ELEVATION :

X-COORD : 33° 19'45.47"S

Y-COORD : 18° 58'51.43"E

HOLE No: TPP02



Scale  
1:20



0.00 Moist, light brown, medium dense, intact, silty SAND: **Alluvium.**

0.40 Moist, orange brown mottled red, ferruginised, dense, intact, silty SAND: **Residual.**

1.20 Moist, dark brown mottled orange in places, medium dense, intact, silty SAND: **Residual.**

3.60

**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) No Refusal.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 06/12/2021-09/12/2021

DATE : 13/01/2022 14:06

TEXT : ..VASTESTPITPIPELINE2.TXT

ELEVATION :

X-COORD : 33° 19'46.74"S

Y-COORD : 18° 58'58.91"E

HOLE No: TPP03

Scale  
1:20



0.00 Moist, dark brown, medium dense, intact, silty SAND: **Alluvium.**

0.50 Moist, orange brown mottled beige in places, medium dense, intact, silty SAND: **Residual.**

3.50

**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) No Refusal.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 06/12/2021-09/12/2021

DATE : 13/01/2022 14:06

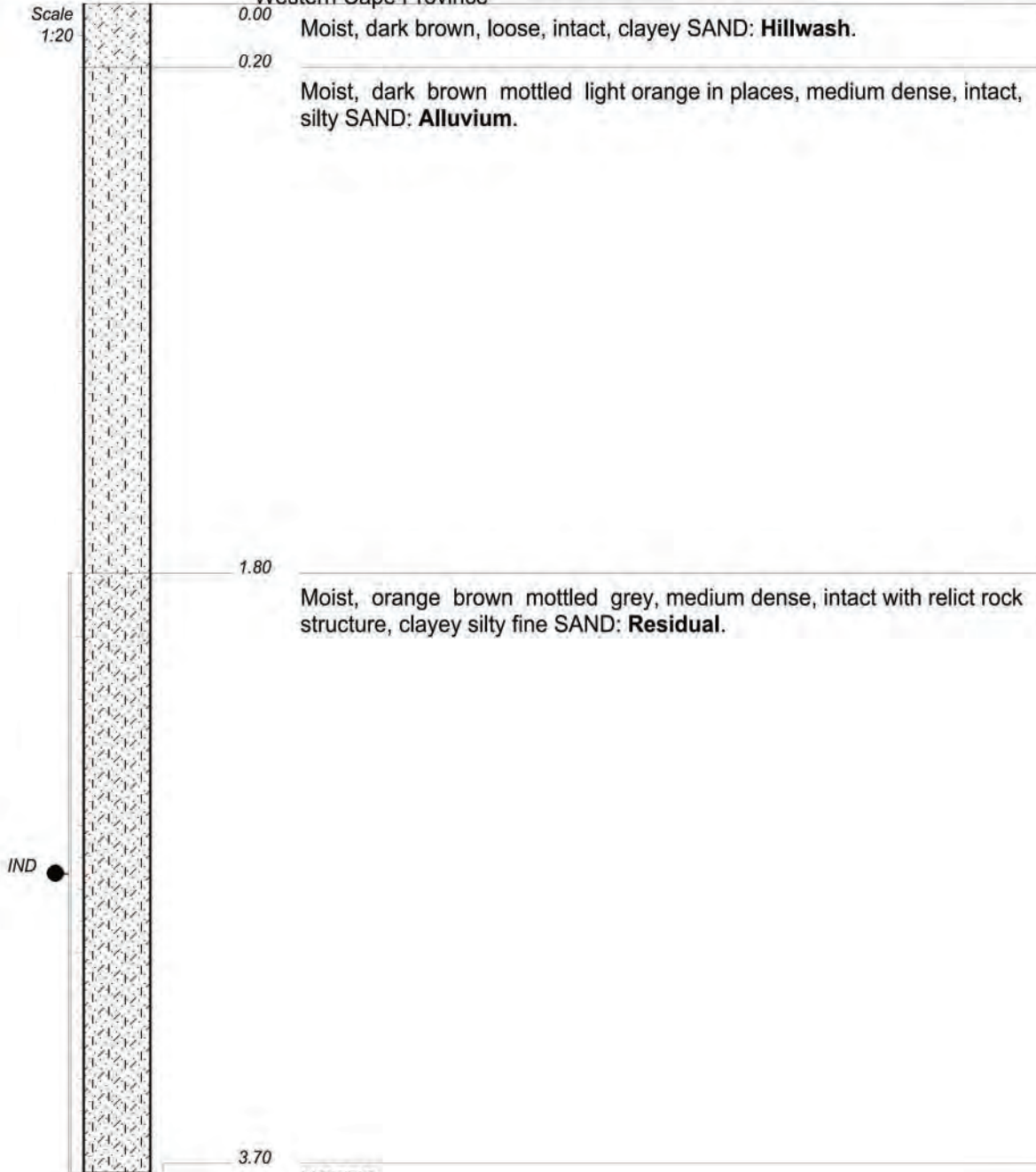
TEXT : ..VASTESTPITPIPELINE2.TXT

ELEVATION :

X-COORD : 33° 19' 48.25"S

Y-COORD : 18° 59' 6.46"E

HOLE No: TPP04

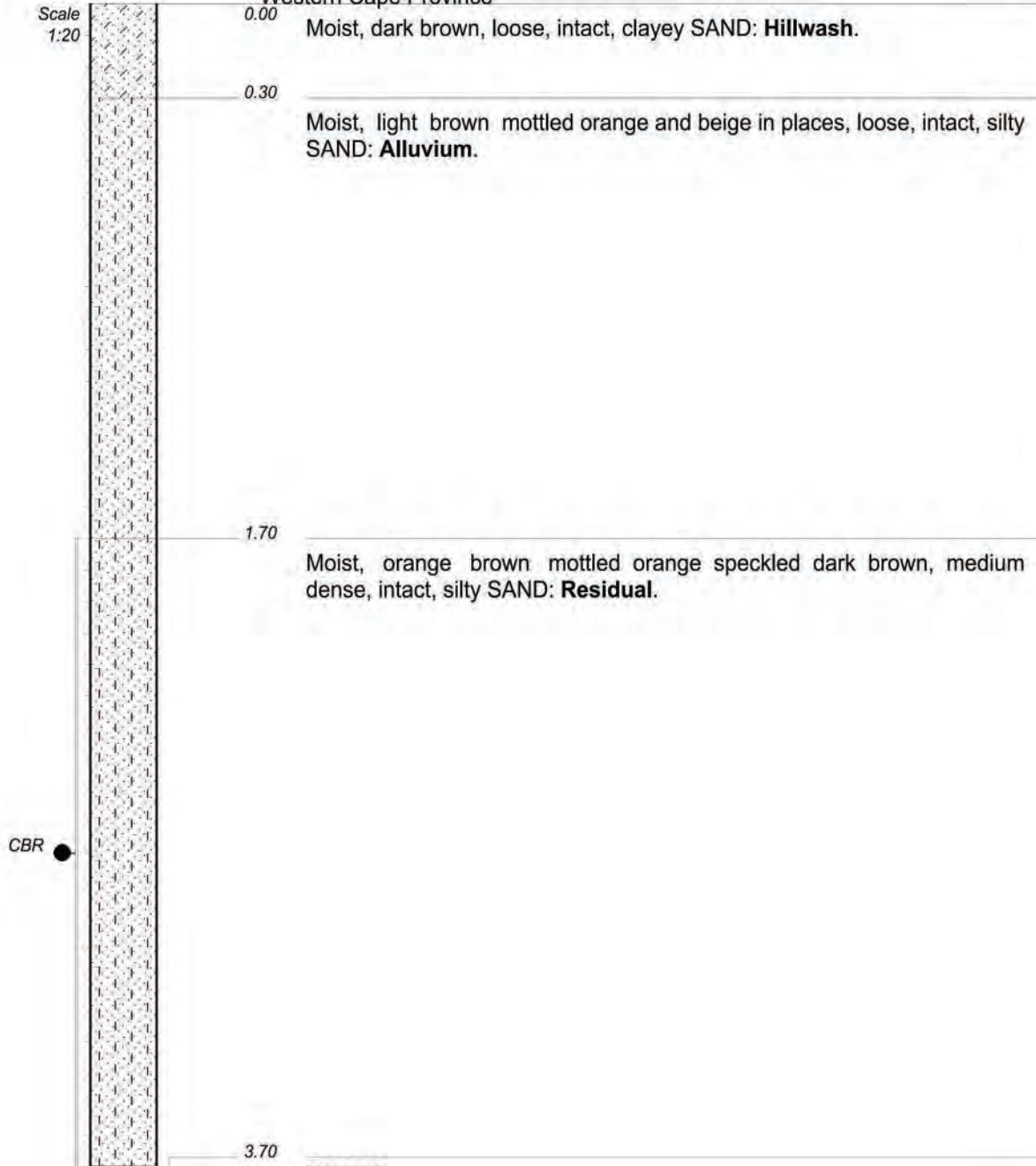


**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) IND sample taken at 1.80--3.70m.
- 4) No Refusal.

CONTRACTOR : Mukona Consulting Engineers	INCLINATION :	ELEVATION :
MACHINE : JCB 3 CX	DIAM :	X-COORD : 33° 19' 49.78"S
DRILLED BY : Ronald	DATE :	Y-COORD : 18° 59' 13.07"E
PROFILED BY : K Naidoo	DATE : 06/12/2021-09/12/2021	
TYPE SET BY : KN	DATE : 13/01/2022 14:06	
SETUP FILE : STANDARD.SET	TEXT : ..VASTESTPITPIPELINE2.TXT	

HOLE No: TPP05



**NOTES**

- 1) No water seepage.
- 2) No sidewall collapse.
- 3) CBR sample taken at 1.70--3.70m.
- 4) No Refusal.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 06/12/2021-09/12/2021

DATE : 13/01/2022 14:06

TEXT : ..VASTESTPITPIPELINE2.TXT

ELEVATION :

X-COORD : 33° 19' 53.83"S

Y-COORD : 18° 59' 20.26"E

HOLE No: TPP06

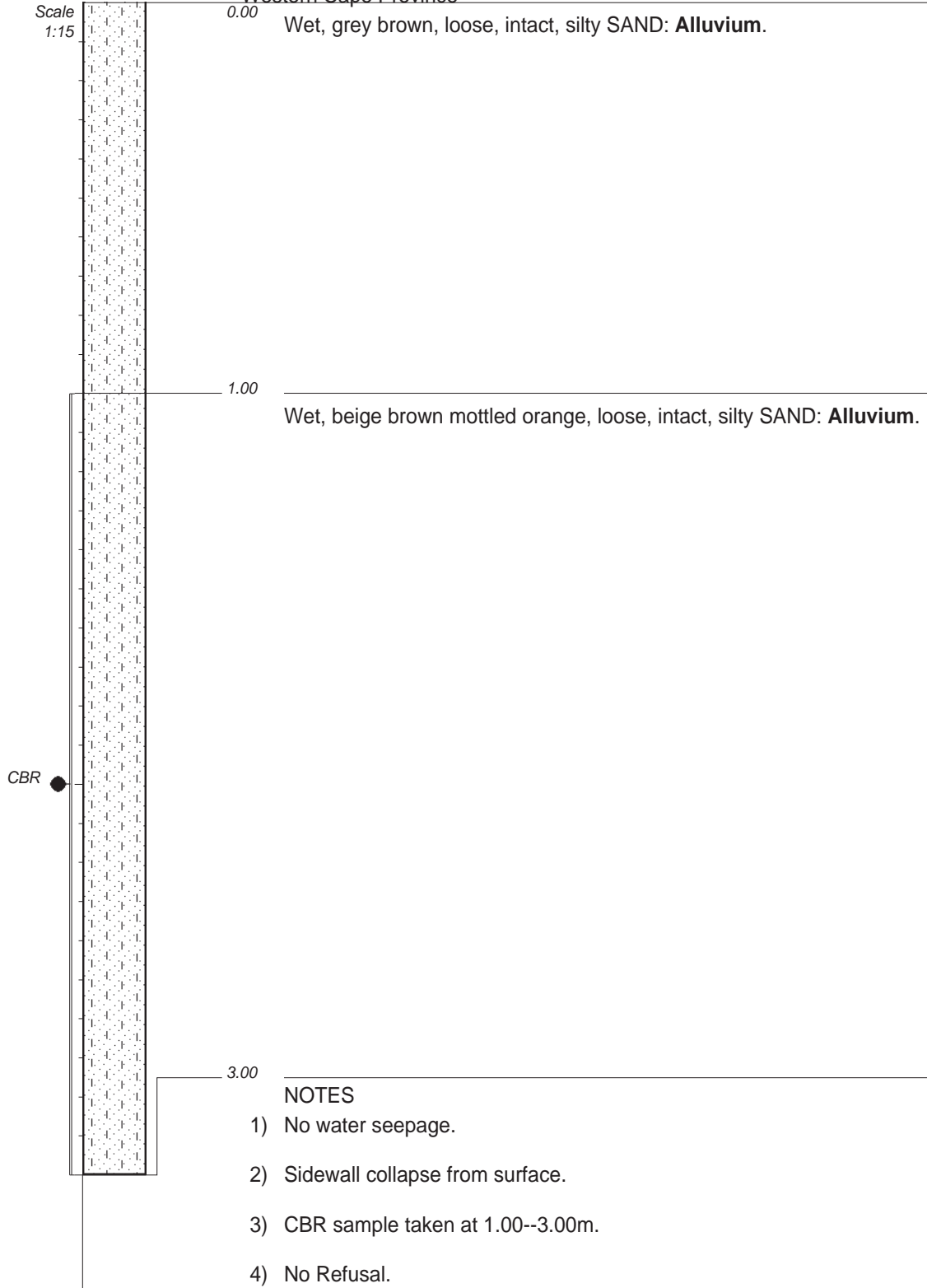


**Trans Caledon Tunnel Authority**  
Geotechnical Investigation  
Berg River Voelvlei Augmentation Scheme  
Riebeek Kasteel  
Western Cape Province

HOLE No: TPP08

Sheet 1 of 1

JOB NUMBER: MK-21-614



CONTRACTOR : Mukona Consulting Engineers INCLINATION : Vertical

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 19'58.95"S

Y-COORD : 18' 59'34.40"E

HOLE No: TPP08

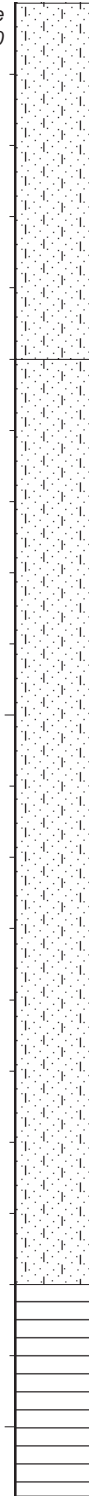


**Trans Caledon Tunnel Authority**  
Geotechnical Investigation  
Berg River Voelvlei Augmentation Scheme  
Riebeeck Kasteel  
Western Cape Province

**HOLE No: TPP09**  
Sheet 1 of 1

**JOB NUMBER: MK-21-614**

Scale  
1:10



0.00 Wet, grey brown, loose, intact, silty SAND: **Alluvium.**

0.50 Wet, beige brown mottled orange, loose, intact, silty SAND: **Alluvium.**

1.80 Light beige brown mottled grey, highly weathered, fine grained, moderately fractured, soft rock, **SHALE.**

2.10 **NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) No refusal but slow advance from 1.90m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

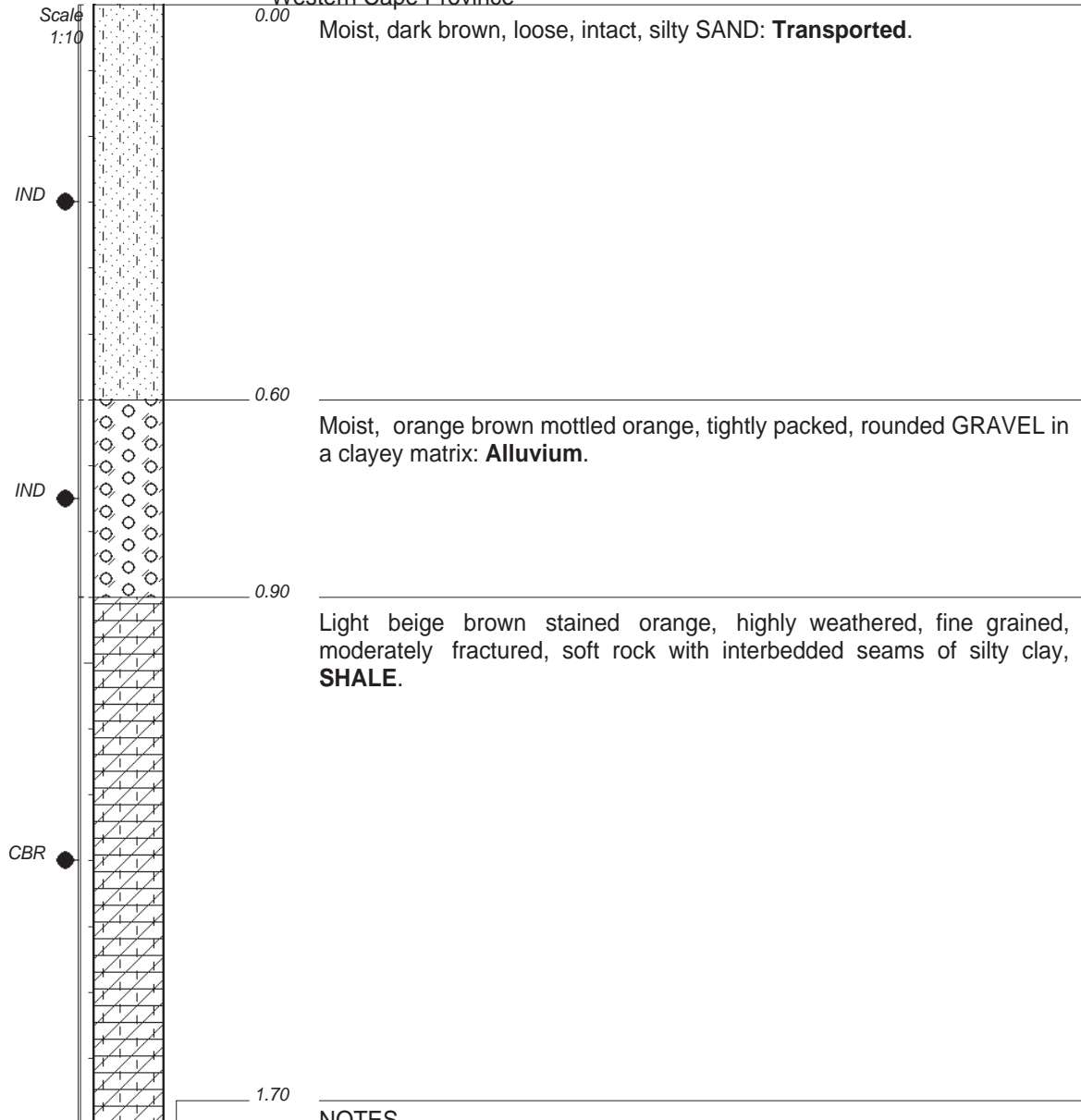
TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'1.62"S

Y-COORD : 18' 59'41.46"E

**HOLE No: TPP09**



**NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) IND sample taken at 0.00--0.60m.
- 4) IND sample taken at 0.60--0.90m.
- 5) CBR sample taken at 0.90--1.70m.
- 6) Refusal at 1.70m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :  
MACHINE : JCB 3 CX  
DRILLED BY : Ronald  
PROFILED BY : K Naidoo  
TYPE SET BY : KN  
SETUP FILE : STANDARD.SET

DIAM :  
DATE :  
DATE : 16/09/21-30/09/21  
DATE : 22/11/2021 08:27  
TEXT : ..RVASTESTPITPIPELINE.TXT

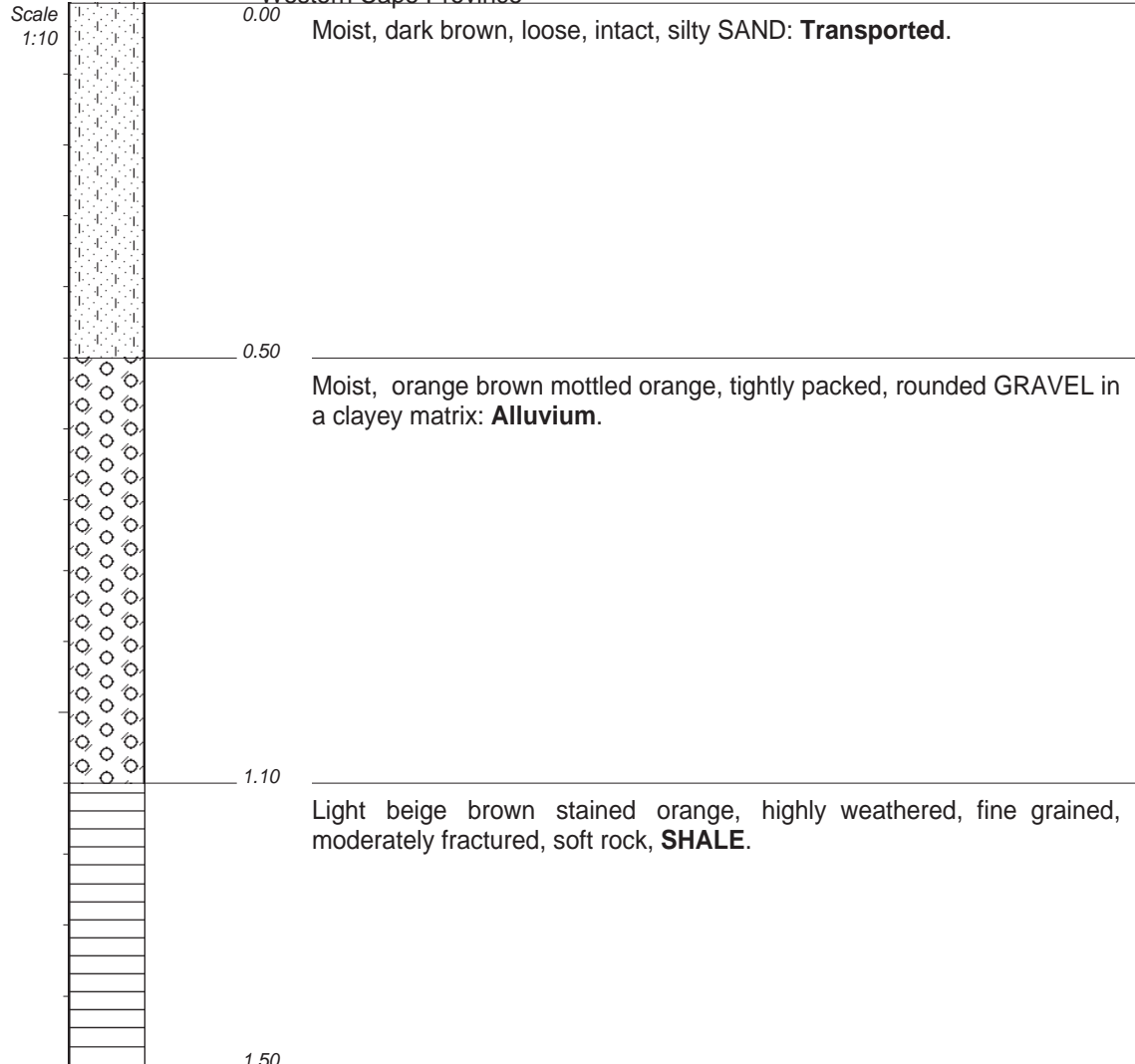
ELEVATION :  
X-COORD : 33' 20'4.44"S  
Y-COORD : 18' 59'48.46"E



**Trans Caledon Tunnel Authority**  
Geotechnical Investigation  
Berg River Voelvlei Augmentation Scheme  
Riebeeck Kasteel  
Western Cape Province

**HOLE No: TPP11**  
Sheet 1 of 1

**JOB NUMBER: MK-21-614**



**NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) Refusal at 1.50m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

TEXT : ..RVASTESTPITPIPELINE.TXT

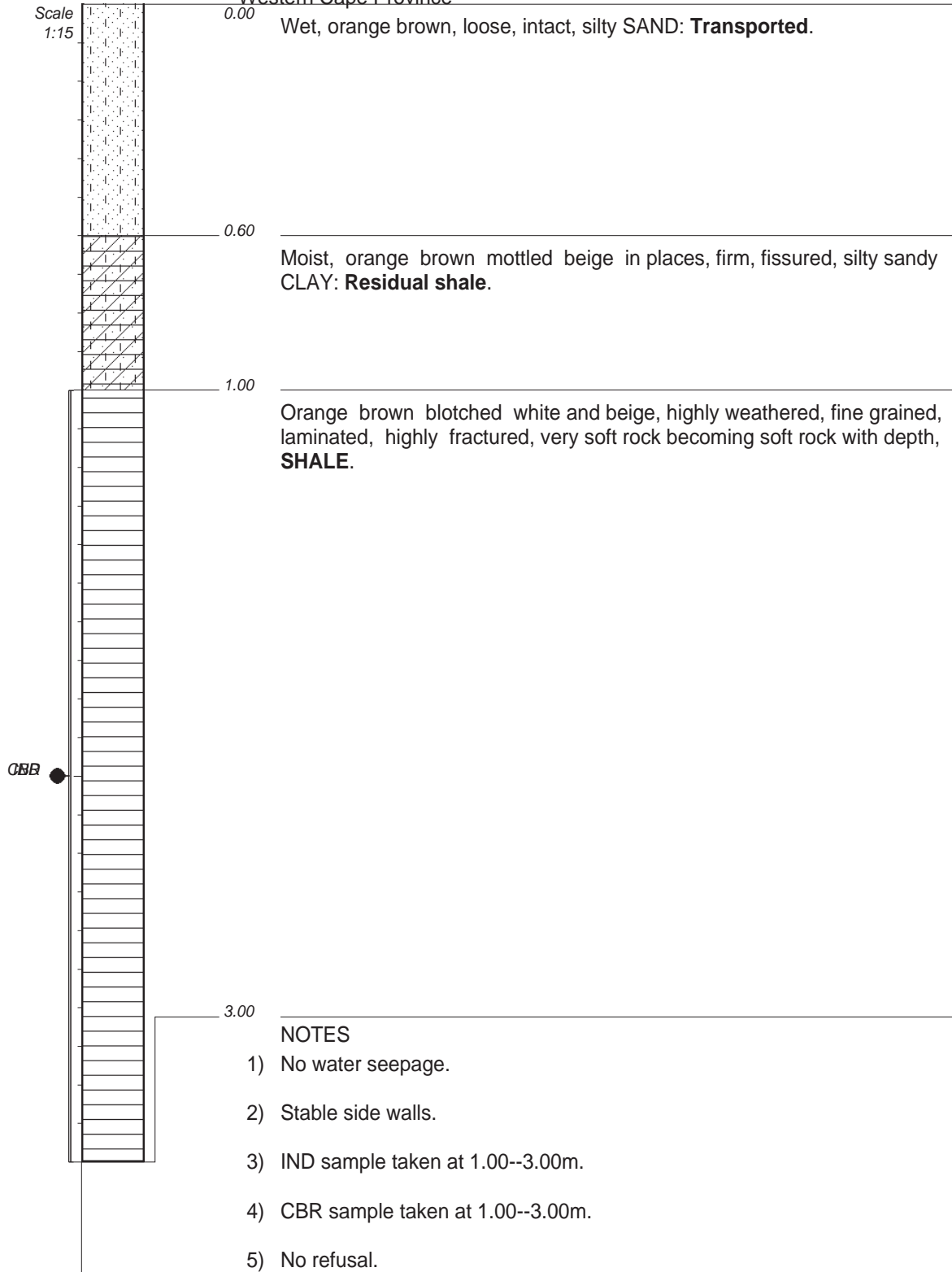
ELEVATION :

X-COORD : 33' 20'8.48"S

Y-COORD : 18' 59'54.49"E

**HOLE No: TPP11**





CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

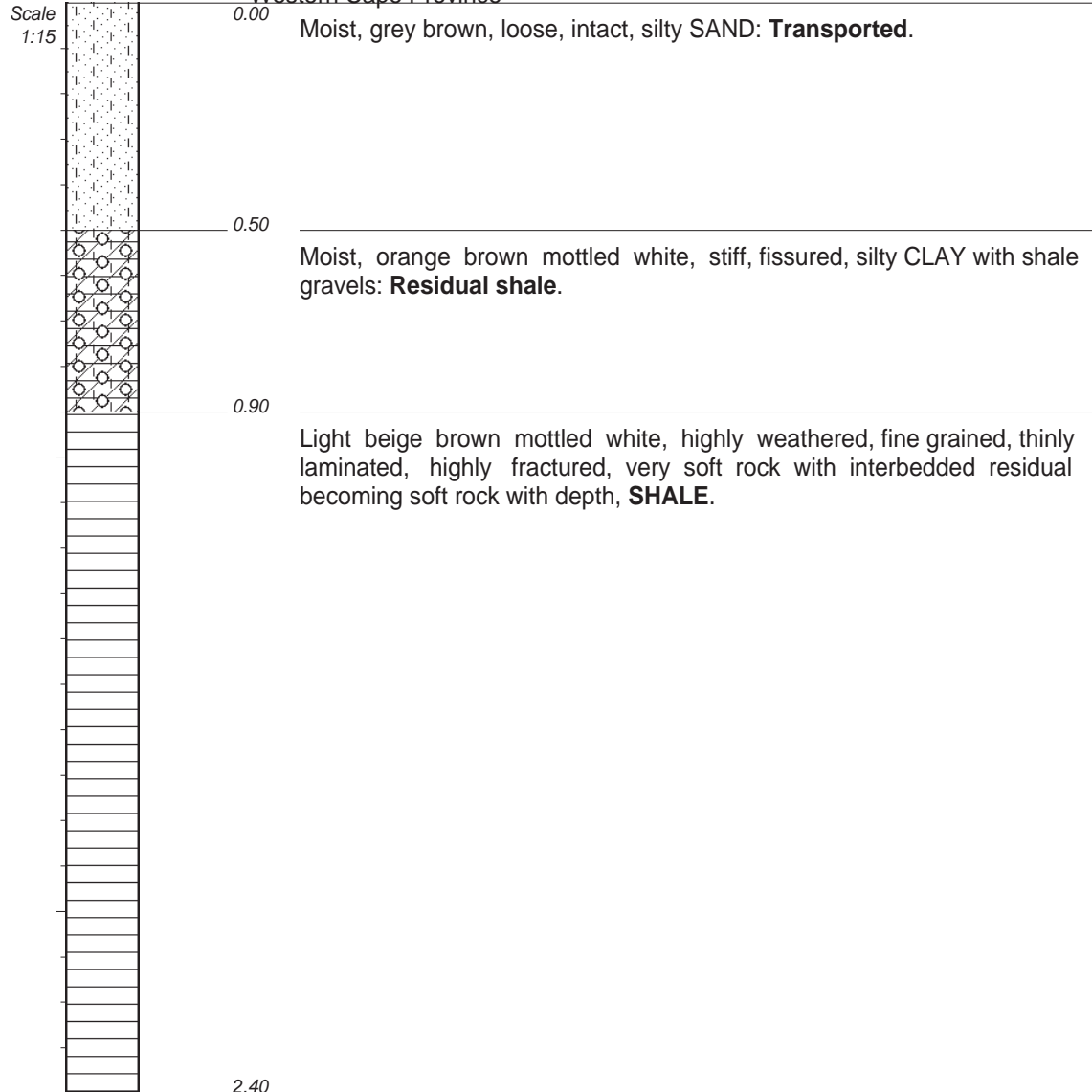
DATE : 22/11/2021 08:27

TEXT : ..RVATESTPITSPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'12.47"S

Y-COORD : 19' 00'0.63"E



**NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) Refusal at 2.40m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

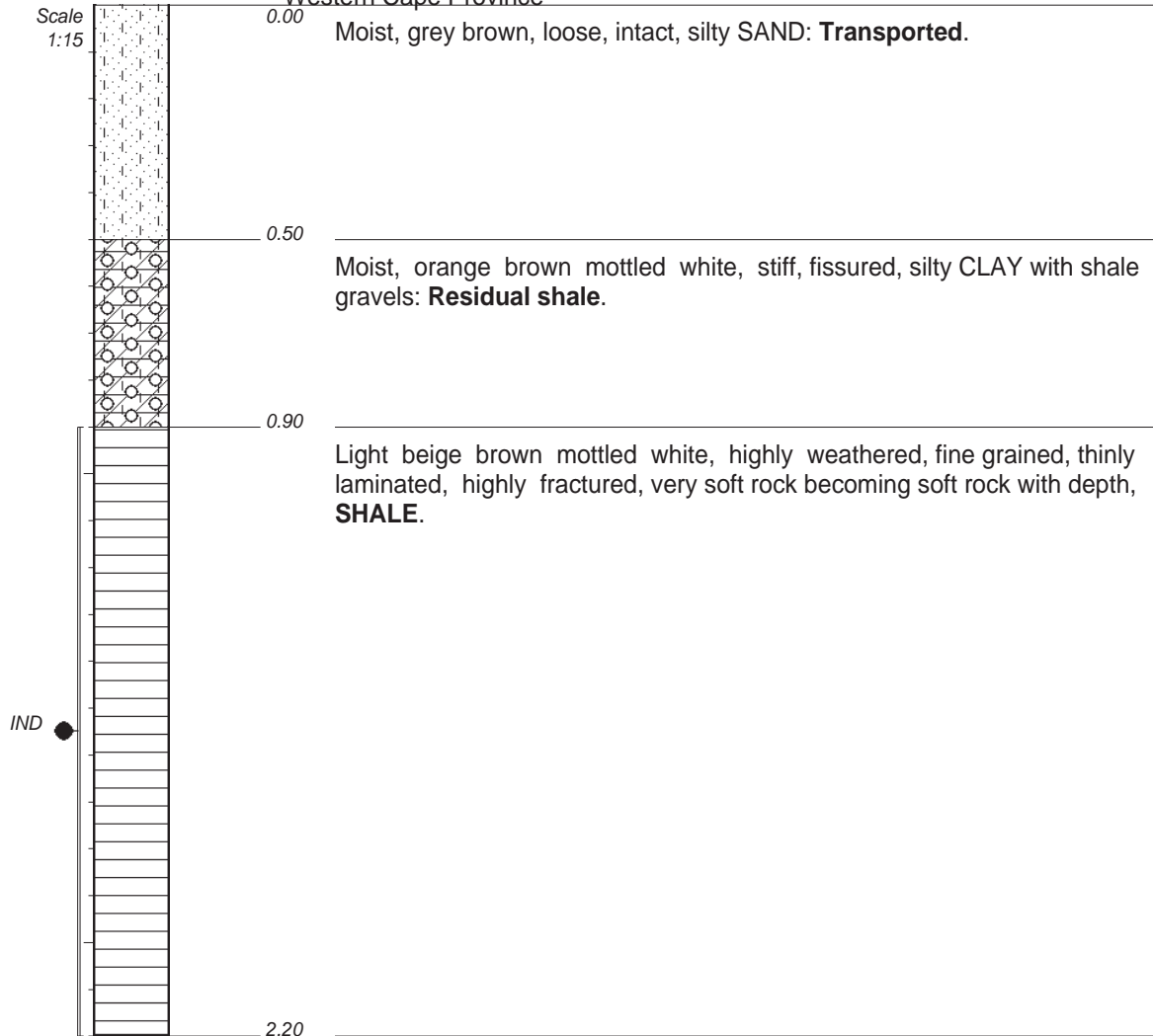
TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'17.70"S

Y-COORD : 19' 00'05.07"E

**HOLE No: TPP13**



**NOTES**

- 1) No water seepage.
- 2) Minor sidewall collapse to 0.50m.
- 3) IND sample taken at 0.90--2.20m.
- 4) Refusal at 2.20m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

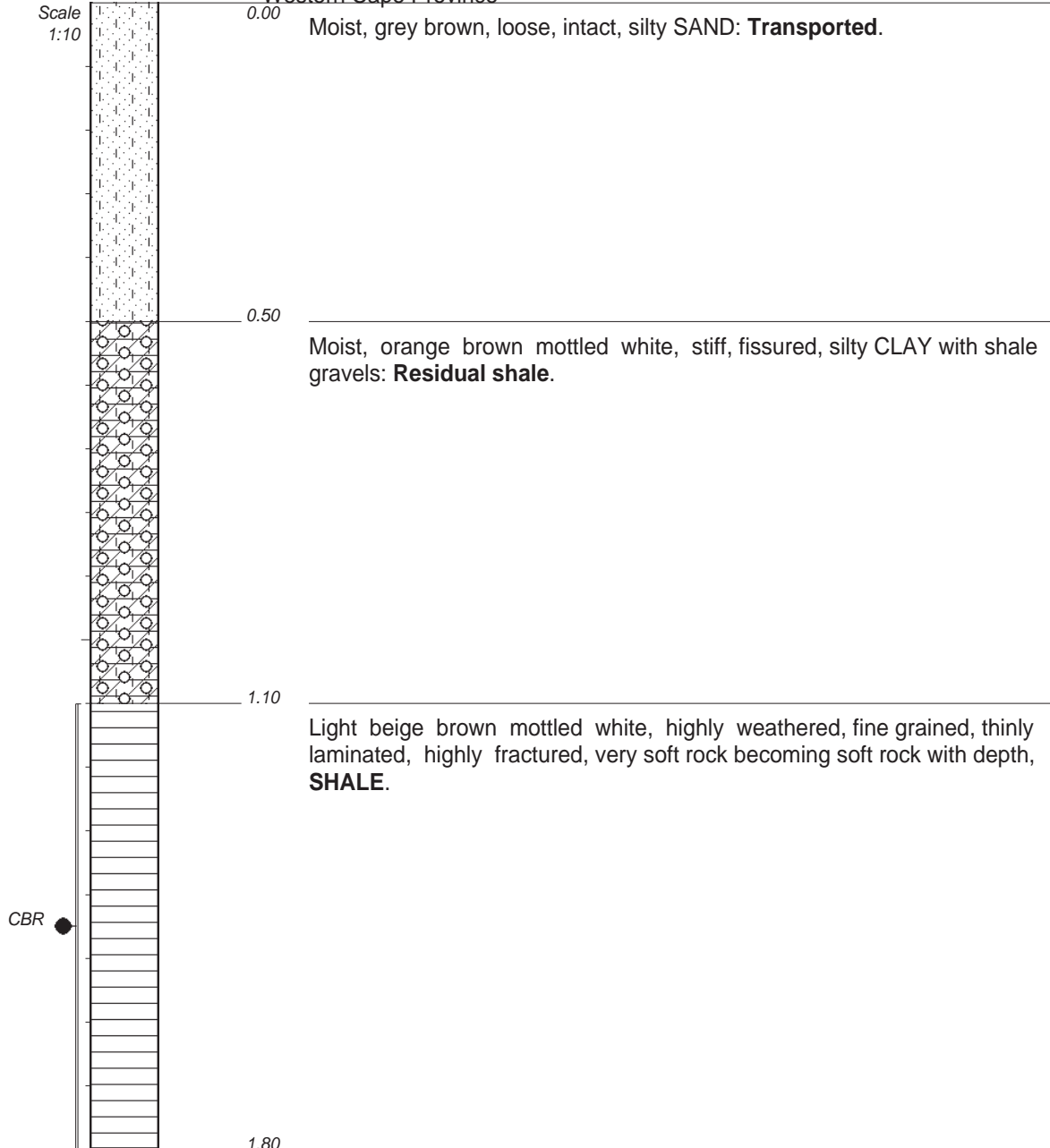
TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'22.07"S

Y-COORD : 19' 00'10.83"E

**HOLE No: TPP14**



**NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) CBR sample taken at 1.10--1.80m.
- 4) Refusal at 1.80m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

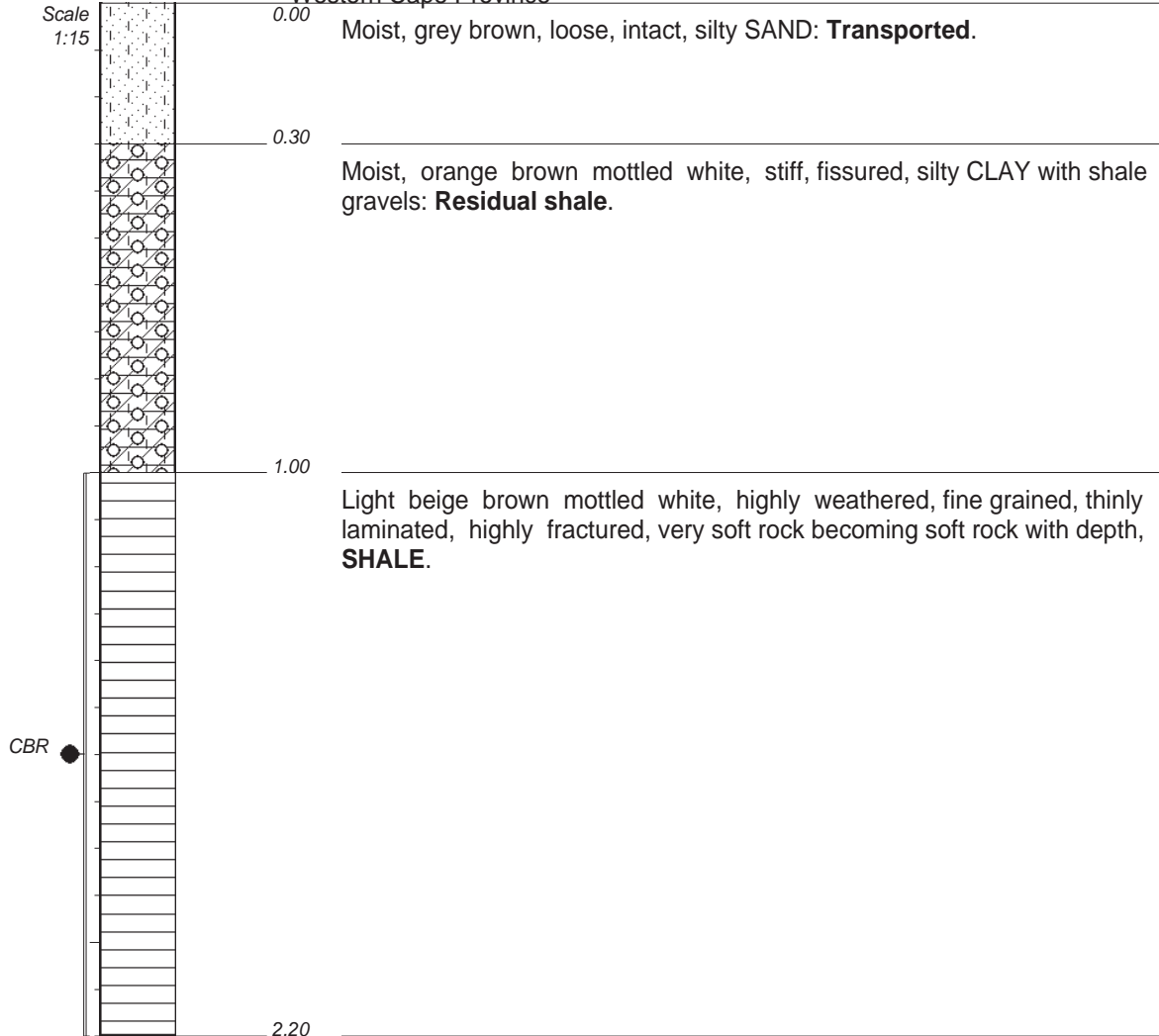
DATE : 22/11/2021 08:27

TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'26.52"S

Y-COORD : 19' 00'16.47"E



**NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) CBR sample taken at 1.00--2.20m.
- 4) Refusal at 2.20m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

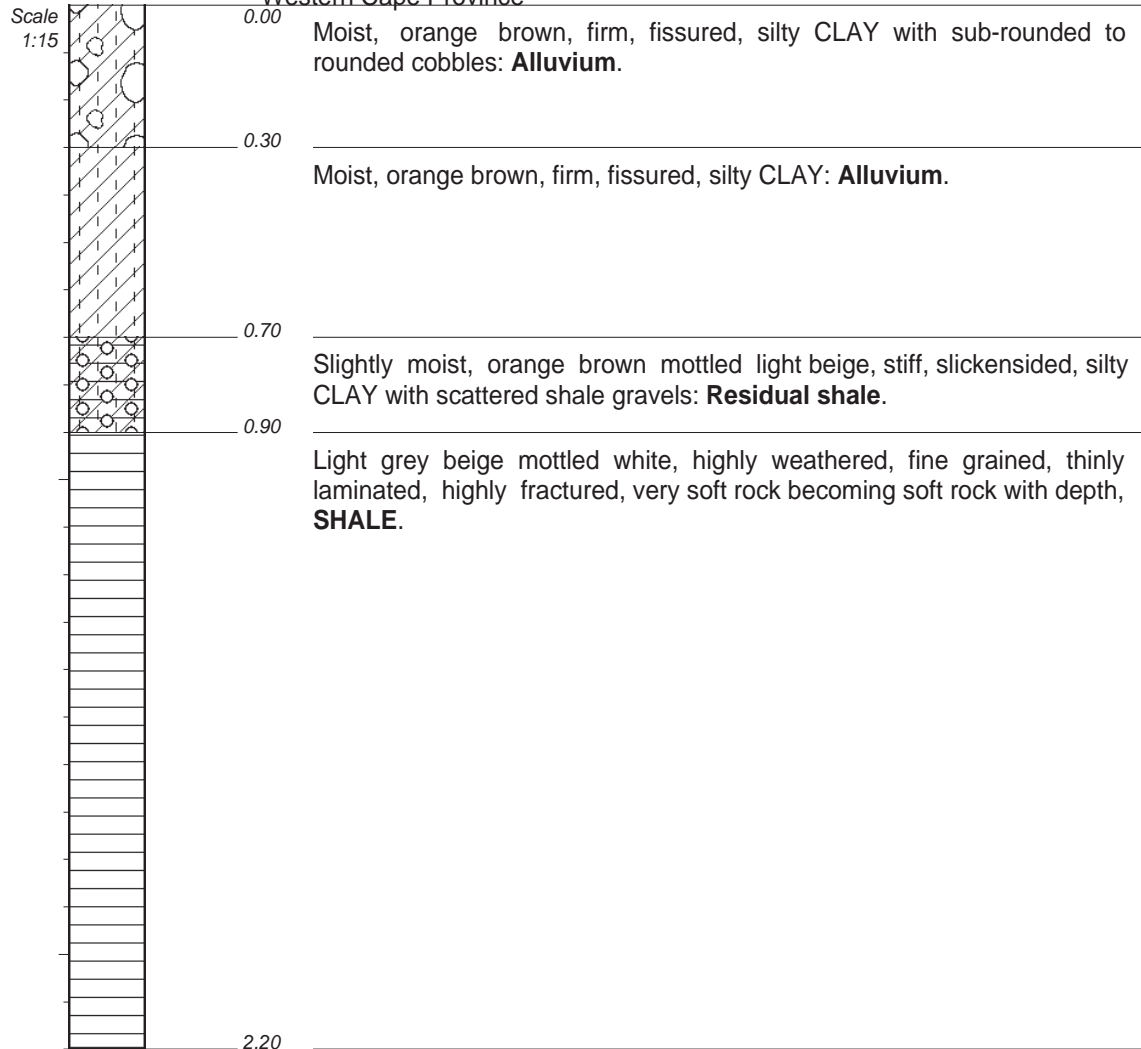
TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'30.86"S

Y-COORD : 19' 00'22.21"E

**HOLE No: TPP16**



**NOTES**

- 1) No water seepage.
- 2) Stable side walls.
- 3) Refusal at 2.20m.

CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

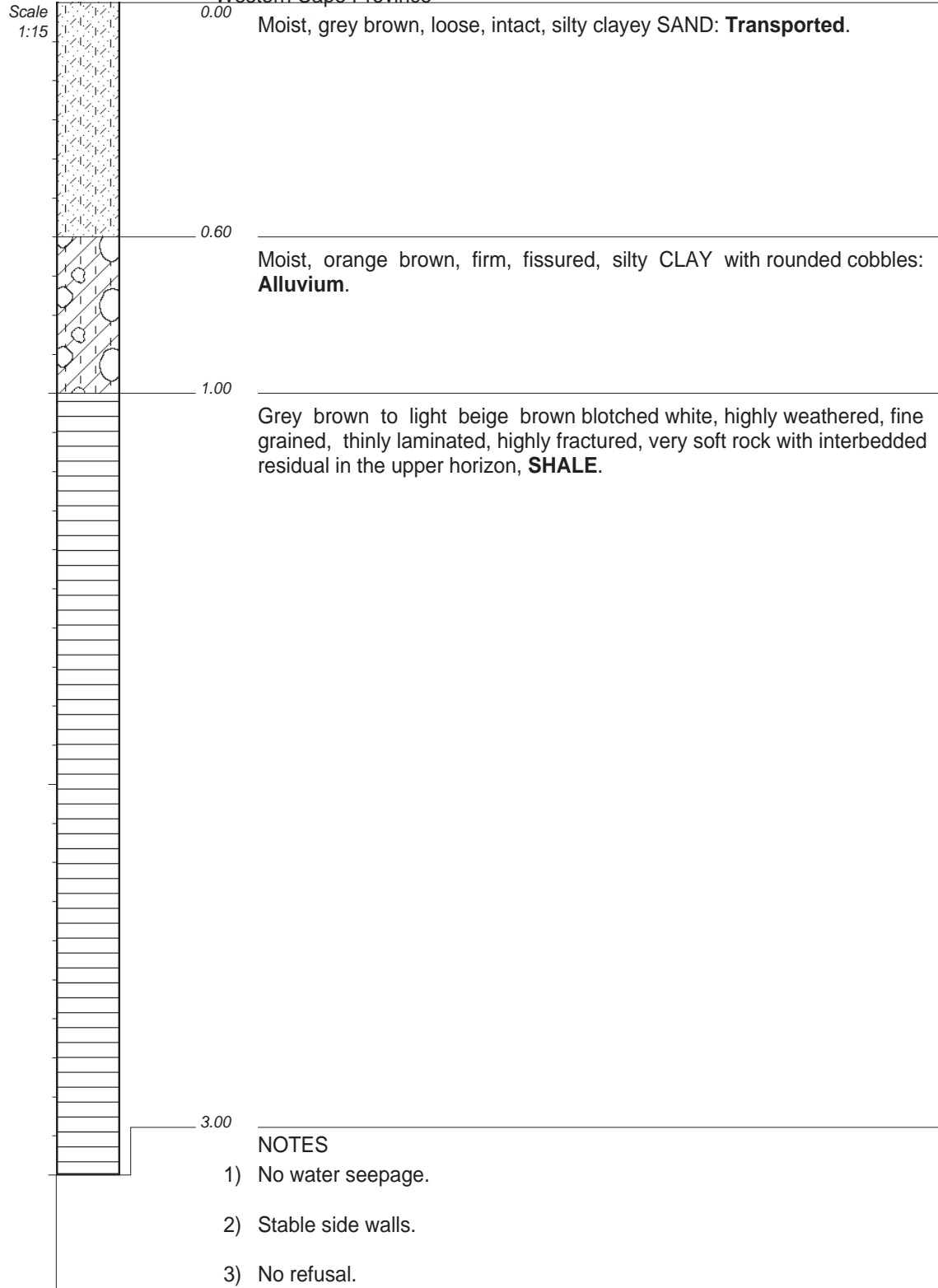
TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'35.23"S

Y-COORD : 19' 00'27.98"E

**HOLE No: TPP17**



CONTRACTOR : Mukona Consulting Engineers INCLINATION :

MACHINE : JCB 3 CX

DRILLED BY : Ronald

PROFILED BY : K Naidoo

TYPE SET BY : KN

SETUP FILE : STANDARD.SET

DIAM :

DATE :

DATE : 16/09/21-30/09/21

DATE : 22/11/2021 08:27

TEXT : ..RVASTESTPITPIPELINE.TXT

ELEVATION :

X-COORD : 33' 20'39.59"S

Y-COORD : 19' 00'33.72"E